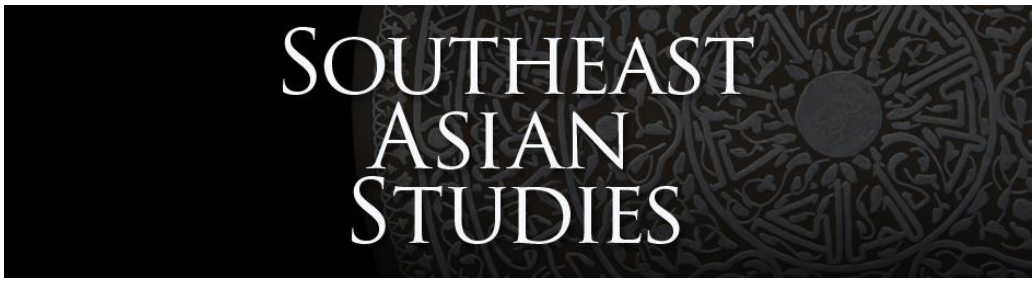

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CONTENTS

Chinese Laborers on a Mining Frontier: The Case of Copper Miners in Northern Luzon, 1856–98

Jely A. Galang*

This paper focuses on the lives and circumstances of Chinese laborers in the copper mines of Lepanto in Northern Luzon from 1856 until the American occupation of the Philippines in 1898. While Filipino laborers were also employed by the Spanish Cantabro-Filipina Company, Chinese laborers were preferred when it came to opening up and exploiting large areas in the "mineral belt" of Luzon. This preference was due mainly to Chinese workers' mining skills and the availability of inexpensive Chinese labor contracted to open up resource frontiers in Southeast Asia and elsewhere. In addition to these factors, the hazardous nature of mining and the Spaniards' negative stereotypical view of Chinese as dangerous albeit "necessary outsiders" made the latter the most suitable labor force for mining. The conditions in the mines, and the abuses committed against the Chinese laborers, caused many workers to run away.

This paper has two parts. The first part discusses the importance of Chinese labor in Philippine mining prior to the nineteenth century. It demonstrates how the Spaniards preferred to employ Chinese labor as Filipinos were viewed to lack the skills and enterprise necessary to exploit the colony's mineral resources. The second part focuses on Chinese laborers in the Lepanto copper mines in the mid-nineteenth century. It describes and analyzes the laborers' working and living conditions in relation to the prevailing labor hierarchy and system of management implemented by the Cantabro-Filipina Company. It also describes the limited interactions between Chinese laborers and non-Chinese employees in the mines.

Keywords: Chinese laborers, Lepanto, copper mines, Philippine history, Northern Luzon, mining industry

Introduction

Tanso is the Tagalog word for copper.[1] It is derived from the Hokkien word for "copper

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1) In accordance with Philippine President Manuel Quezon's Executive Order No. 134, issued in 1937, Tagalog became the basis of the country's "national language," which is Filipino (Speech of President Quezon on Filipino National Language, December 30, 1937).

wire" (Ang See *et al.* 2005, 220). The "borrowing" of the term demonstrates an aspect of longtime cultural interactions and commercial exchanges between Filipinos and the Chinese of Southern China (Manuel 1948). The word *tanso* also serves as evidence of Chinese labor's important role in the development of the Philippine mining industry, particularly copper mining. During the nineteenth century, Chinese laborers formed the backbone of the labor force that exploited the copper mines of Lepanto in northern Luzon.[2] These laborers were instrumental in all the aboveground and subterranean works and activities involved in the extraction of the metal.

Despite the significant role that Chinese workers played in the colonial mining industry, written works about them are relatively scarce. Salvador Lopez's (1992) "definitive history of mining in the Philippines," for example, mentions how the Spanish colonial government and private businessmen deemed it necessary to hire Chinese miners from the 1780s to the 1890s. Lopez's discussion on these laborers, however, is only tangential to his primary purpose, which is to highlight "the role of [the natives (i.e. Filipinos), and] native technology in the [mining] industry" (Lopez 1992, 8). Similarly, Onofre Corpuz's (1997) classic work on Philippine economic history only briefly mentions Chinese miners, as the book's main goal is to elaborate on the Bourbon economic reforms initiated in the late eighteenth century. Edgar Wickberg (2000) mentions mining as an industry that employed Chinese workers, but only in relation to his discussion on why and how the second half of the nineteenth century opened up new economic opportunities for Chinese in the colony.

There are a number of articles that mention Chinese miners, but like the above-mentioned works, their discussions are peripheral to the authors' main subject matter. Maria Lourdes Diaz-Trechuelo (1965) and Salvador Escoto (1998) provide details on Chinese laborers in the mining industry, but their focus is on the general economic condition of the islands in the 1780s and the economic projects spearheaded by some pioneer Spanish industrialists during the period. Lastly, in her articles on the history of gold mining in Benguet, Olivia Habana (2000; 2001) underlines the industry's economic, social, and political effects on the lives of the Igorots in the Cordilleras. These works, therefore, expose a historiographical lacuna, which the present paper endeavors to fill in.

Using previously unexplored and underutilized primary materials from various Philippine and Spanish archives and libraries, this paper presents a narrative on the lives and circumstances of Chinese laborers in the copper mines of Lepanto from 1856 until

2) "Luzon," the name of the largest Philippine island, was derived from early Chinese merchants (called *sangleyes* by the Spaniards) referring to it as *Luzon*, "Island of Gold" (Lopez 1992).

the American occupation of the Philippines in 1898.[3] While Filipino laborers, such as Ilocanos,[4] Igorots,[5] and Tinguians,[6] were also employed by the Spanish company Sociedad Minero-Metalurgica Cantabro-Filipina de Mancayan (the Cantabro-Filipina Company), which was considered "the most successful of all other mining speculations undertaken on a large scale in [the] colony" (Foreman 1899, 386), Chinese laborers were preferred when it came to opening up and exploiting large areas in the "mineral belt" of Luzon (US Bureau of the Census 1905, 82).[7] This preference was due mainly to Chinese workers' mining skills, and the availability of inexpensive Chinese labor contracted to open up resource frontiers in Southeast Asia and elsewhere (McKeown 2011, 62–83). In addition to these factors, I argue that the hazardous nature of mining and the Spaniards' negative stereotypical view of Chinese as "dangerous" albeit "necessary outsiders" made the latter the most suitable labor force for mining. The shocking conditions in the mines, and the abuses committed against the Chinese laborers, caused many workers to run away.

This paper has two main parts. The first part briefly discusses the importance of Chinese labor in Philippine mining prior to the nineteenth century. It demonstrates how the Spaniards, specifically private businessmen and adventurers, preferred to employ Chinese labor as Filipinos were viewed to lack the skills and enterprise necessary to exploit the colony's mineral resources. The second part focuses on Chinese laborers in the Lepanto copper mines between 1856 and 1898. It describes and analyzes the laborers' working and living conditions in relation to the prevailing labor hierarchy and system of management implemented by the Cantabro-Filipina Company. It also describes the limited interactions between Chinese laborers and non-Chinese employees (Spaniards and Filipinos) in the mines.

3) The main sources of information for this paper came from archives and libraries in the Philippines and Spain. I used official Spanish documents from the National Archives of the Philippines (Manila), the Archivo Historico Nacional (Madrid), and the Archivo General de Indias (Seville). Books published during the nineteenth century as well as reports by the Inspeccion General de Minas (General Inspection of Mines) were taken from the University of the Philippines—Main Library (Quezon City) and the Biblioteca Nacional de España (Madrid).

4) Christianized groups from the lowland towns of the Ilocos region.

5) The term "Igorots" generally refers to Filipinos born on the Central Cordillera in Northern Luzon. More accurately, the Igorots are divided into six ethno-linguistic groups—Isneg (Apayao), Kalinga, Bontoc, Ifugao, Kankanay, and Ibaloy—who for three centuries resisted assimilation into the Spanish Empire (Scott 1974, 2).

6) Tinguians are the indigenous peoples of Abra Province, in northwestern Luzon (Cole 1915, 3).

7) The term "mineral belt" was coined by American mining prospectors to refer to the Lepanto-Bontoc area, where gold and copper abounded.

The Philippine Mining Frontier and Chinese Labor

The Philippines has abundant mineral resources. Since the beginning of Spanish rule in the sixteenth century, reports from the colony were sent to Madrid detailing the types of minerals and their locations on the islands (Letter from Andres de Mirandola [1574] 1903–7, 223–224; de Sande [1576] 1903–7, 54). The Spaniards soon learned that Filipinos had some knowledge of mining and refining metals but the amount they produced was small compared to what could actually be obtained (*Filipinas 881*).[8] Notwithstanding this observation, and the desire of some Spanish officials to improve what they considered the miserable state of mining in the Philippines, the colony in the sixteenth and seventeenth centuries continued to depend on metal imports from China (Reid 2011, 21–22).[9] Chinese traders brought into the islands large quantities of "metal basins, copper kettles and other copper and cast-iron pots; quantities of all sorts of nails, sheet-iron, tin and saltpetre, and gun-powder" (de Morga 1903–7, 179).

It was only in the middle of the eighteenth century, spurred by the Bourbon Reforms in Spain, that serious initiatives were undertaken to open up the Philippines' mining frontier. With financial means and motivation, under the auspices of the colonial government, some Spanish industrialists initiated the exploration and extraction of natural resources such as timber and minerals in several mountainous regions of Luzon and Visayas (Diaz-Trechuelo 1965, 763–800). One of these pioneer industrialists in search of financial windfalls[10] was Francisco Xavier Salgado, who invested in a number of mining ventures. Through Salgado's unwavering efforts and adventurous spirit, three iron mines were opened during this period: Mambulao in Camarines, Santa Ines in Tondo, and Angat in Bulacan (Escoto 1998, 273–292).

Chinese skilled and unskilled laborers were absolutely crucial in the working of all these iron mines. The 1753 reopening of the Mambulao mines[11] began when Salgado and the Augustinian Recollect Fray Sebastian de San Vicente went to Camarines

8) In this context, the term "Filipino" refers to the Visayans in the central part of the Philippines. The Visayans were the first inhabitants of the islands with whom the Spanish *conquistadores* had initial contacts before the Spanish colonial city of Manila was established in 1571 (Scott 1994, 55).

9) Iron and copper were the two most imported metals from China during that period.

10) I use the concept of "windfalls" as formulated by Walter Prescott Webb (1964, 1–28, 180–202). According to Webb, a windfall is a resource "that comes free and unexpected and of good import." Windfalls can be categorized into (1) primary, or "those quickly come at, things that could be had with a minimum of investment and little preliminary work"; and (2) secondary, or those which require "a long time element of waiting, and often great expense, too great for the endurance of a distant and impatient investor."

11) The Mambulao mines had been explored in the 1660s–1690s but had not produced enough iron to cover the expenses incurred in their operations.

with 16 Chinese: two master founders and 14 skilled carpenters, smiths, and colliers (Diaz-Trechuelo 1965, 766, 768). After clearing Angat's forested area, the Chinese laborers carried out the mining and smelting of iron until 1781 (Centeno 1876, 39). Early in 1758, skilled artisans and more than three hundred unskilled laborers worked in the Santa Ines mines (Diaz-Trechuelo 1965, 771–772). By 1772 these mines still had about three hundred Chinese unskilled laborers in addition to 62 Chinese skilled artisans who worked as ironmasters, refinery experts, and ironsmiths (Diaz-Trechuelo 1965, 776).

The strong preference for Chinese labor was due primarily to their knowledge and skill in smelting and smithing (de Salazar [1590] 1903–7, 212–228). In addition, from the pragmatic standpoint of the colonial authorities, the Chinese laborers' work ethic was commendable, particularly when compared to the Filipinos'. These qualities and attributes of the Chinese led Spanish industrialists to import labor directly from China. When occasional disruptions in the importation of Chinese labor occurred—for example, when Governor Pedro Manuel de Arandia expelled all pagan Chinese from the colony in December 1758 and temporarily restricted Chinese immigration—Spanish businessmen resorted to obtaining mine laborers from Parian in Manila, especially before the last Chinese expulsion in 1766 (Diaz-Trechuelo 1965, 774).[12)]

It is important to stress that despite their skills and work ethic, Chinese laborers were treated as a marginal group by the colonial authorities. Essentially, they were considered neither part of the colonizers nor part of the colonized (i.e., Filipinos). By virtue of their ethnic origins and affiliations and their socioeconomic status, Chinese laborers were situated at the bottom of the colonial social structure. In this case, in the mid-eighteenth century they could be compelled to work for whatever purpose their colonial masters deemed suitable. For example, some two hundred of them were coerced to labor in the Santa Ines mines in 1765. The government's order to the soldiers was clear: "all the Sangley ironworkers *should be seized* and transported to the mines [italics added]" (de Viana 1903–7, 107). The risks involved in clearing forested areas and the hazards of actual mining were not considered seriously by the Spanish administrators as far as Chinese labor was concerned. In fact, it was the "unhealthy environment" in the Angat and Santa Ines mines that made Chinese laborers suitable for the difficult and dangerous job (Buzeta and Bravo 1850, Vol. 1, 22; Abella Casariego 1883, 7; Escoto 1998, 277).

Abuses were also committed against the Chinese miners, who had to work incessantly for long hours in order to obtain the amount of iron the Spanish capitalists expected.

12) Parian was the Chinese enclave in Manila, established in 1581.

In the Santa Ines mines, workers in the foundries and refineries were forced to work day and night (Diaz-Trechuelo 1965, 776). Angat's Chinese miners had to work without the benefit of machinery.[13] The strenuous nature of mine work required sufficient food intake and nutrition. However, only a limited supply of food was provided for the laborers. In 1765 the Chinese laborers in Santa Ines were compelled to cultivate the area around the mines to augment the rations provided by the government (de Viana 1903–7, 107). The same directive was imposed also upon the Angat laborers (Centeno 1876, 39). The meager funds available to the colonial government were allocated primarily for the reconstruction of what was destroyed during the British invasion of Manila (1762–64) as well as to better equip the military force to cope with the increased Iranun raiding on the islands.

Due to the terrible labor conditions in the mines, it was common for Chinese laborers to flee. Hence, stricter controls were imposed on their movements and work. These stringent measures were deemed important when the act of running away was viewed within the context of the numerous Chinese revolts of the preceding period. While mine administrators were mostly civilians, managers on site had to be from the military. For example, a Spanish military official functioned as the manager of the mines and supervisor of the Chinese laborers at the Santa Ines mines. This official had at his disposal 25–30 soldiers who made sure the laborers followed the manager's orders and carried out their work efficiently (de Viana 1903–7, 107–108).

Copper Mines in Northern Luzon

As in the earlier period, Chinese laborers were also employed in the copper mines of Lepanto in the nineteenth century. Copper as a "windfall" commodity (Webb 1964, 180, 182) in the mountainous frontier of Northern Luzon was first mentioned during Governor Simon de Anda's administration (1770–76).[14] However, no attempt was made to tap its potential until Governor Pascual Enrile (1830–35) tried to curb the circulation of counterfeit money called *siping* (US Bureau of the Census 1905, 84) by instructing Col.

13) After 1795 the mines were taken over by the businessman Don Domingo Rojas and engineer Don Jose Barco. The two partners expanded the geographic scope of the mines. They also imported machines from Europe to be used in the mines. Unfortunately, due to nearly impassable dirt roads leading to the mines, the machines were not installed and thereby became useless.

14) Webb classified mineral resources such as gold and silver under primary windfalls. However, while Lepanto copper was a mineral resource, it took a long time (about six years) and a huge amount of capital investment before the mines produced ample ores to cover expenses and make a profit.

Guillermo Galvey to tackle the problem.[15] Galvey was also tasked to be on the lookout for copper deposits (Scott 1974, 245). However, specific directives for exploring the mineral resources of the mountains between Cagayan and Ilocos were issued only on March 27, 1834. On January 1–18, 1835, assisted by Aide-de-Camp Jose Maria Peñaranda, Galvey undertook the search for copper (Centeno 1876, 41; Scott 1975a, 129)[16] in the *rancherías* (Meyer 1975, 103)[17] of Gambang, Lamagang, Ampan, and Apayao. These settlements were part of the 60 *rancherías tributarias* (tributary villages) under the jurisdiction of the Political and Military District of Lepanto (see Map 1) (Cavada y de Vigo 1876, 115).

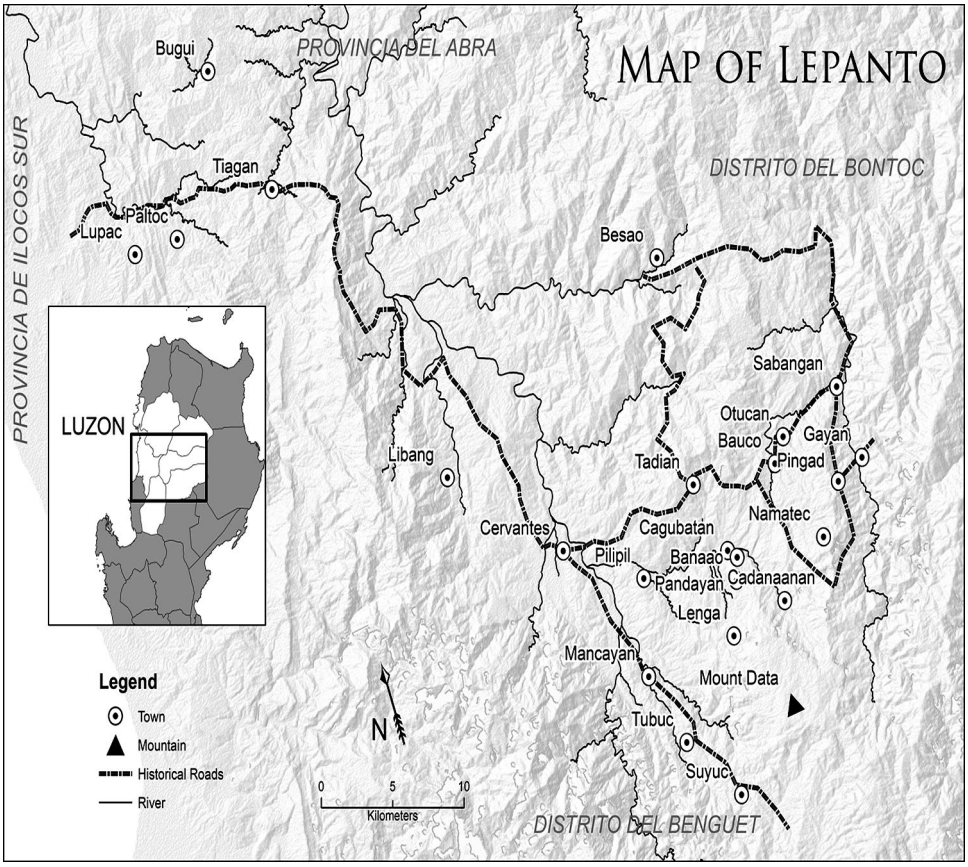
Galvey and Peñaranda not only discovered a "copper region of unquestioned value" (Early Franciscan Missions [1649 (1895)] 1903–7, 301), they also learned that the Igorots of these rancherías had been mining copper even before the Spanish colonization of the islands (Santos 1862, 19, 21; Centeno 1876, 43; de Lacalle 1886, 201). The mining engineer Antonio Hernandez, who was sent to the Cordilleras in 1850, learned on the spot how the Igorots mined and smelted ores. According to his report, the Igorots were knowledgeable in extracting and refining minerals such as copper and gold. To open a new mine site, the Igorots constructed pools of water in order to obtain a head of pressure adequate to reveal the mineral deposits, which they split by building fires against the rock. The ores were then roasted with fuel piled up around them. These roasted ores were melted down twice in crude furnaces so that a finer grade of metal could be acquired (*Ultramar 443, Expediente 4*).

The Igorots sold the half-worked ores in the lowland Christian towns of La Union and Ilocos. Artisans in these towns used the copper to make utensils and ingots illicitly used as currency (the counterfeit sipings). In most cases, these copper objects were also sold in Manila (Santos 1862, 19). However, from the standpoint of the Spaniards, the Igorots' "rudimentary" mining and smelting techniques produced low-quality ore and poor amounts of copper. This deplorable situation, the authorities asserted, could be improved with the help of mining experts and the use of machinery (Santos 1862, 19–20).

15) The manufacture of sipings was part of the Igorot copper industry. Extremely rude counterfeits of Spanish copper coins, which were much thicker, sipings were made because of the virtual lack of small change in Lepanto and other parts of northern Luzon. Sipings were valued at a cent and a quarter Mexican, with 4 sipings being equal to 5 centavos. Spanish efforts to curb the manufacture of sipings met with limited success. When American mining prospectors went to Lepanto in the 1900s, they found some Igorots and Chinese engaged in producing the coins, albeit in smaller quantities than what was produced in the nineteenth century.

16) According to Jose Centeno y Garcia, the order for the exploration was issued from Madrid in 1833.

17) A ranchería was a small settlement or village of *indios* who had not yet been converted to Christianity. A ranchería consisted of not more than 60 houses and not more than 250 inhabitants.



Map 1 District of Lepanto

On March 9, 1837, two years after the Galvey-Peñaranda expedition, the Inspeccion General de Minas was established to promote the mining industry in the Philippines (Santos 1862, 19). The bureau was tasked to undertake mineral and resource explorations in the archipelago, conduct geological surveys in potential mining areas, collect rock samples for investigation, and create an empirical data base for the development of the industry (Santos 1862, 19–21; Abella Casariego 1883, 14–15). The bureau was composed of a corps of engineers under the chief inspector, who was also an engineer (Abella Casariego 1883, 14). It was through the efforts of the bureau's corps of engineers that systematic studies on the copper mines in Lepanto were undertaken. For example, the bureau reported that an estimated 189.78 *quintales metricos* (metric quintals) of copper could be procured from the mines annually.[18] This meant that over 15 years (1840–55)

18) One metric quintal is equivalent to about 100 pounds or 46 kilograms.

the mines could produce approximately 2,846.70 quintales metricos of copper, which was equivalent to 117,000 *pesos fuertes* when sold in Manila (Santos 1862, 19).

The first comprehensive regulations on mining (Reglamentos de Minas) were introduced in 1846 through a decree issued by Governor Narciso Claveria (1844–49) (Centeno 1876, 41). In these regulations, the fundamental goals, the agencies, and the overall processes involved in mining the colony's mineral resources were outlined in detail. The Reglamentos also set out the rights and responsibilities of the colonial state, contractors, miners, and laborers (Rodriguez Berriz 1887–88, Vol. 8, 350–357). Twenty years later, a more detailed mining policy was announced through the Mining Decree of May 14, 1867. As will be elaborated in the following sections, the 1867 Decree clarified certain provisions of the 1846 Regulations, particularly articles specifically about Chinese contract laborers (*chinos contratados*) (Rodriguez Berriz 1887–88, Vol. 8, 375–378), who comprised the majority of workers employed in the Lepanto copper mines.

The Cantabro-Filipina Company

Proposals for the systematic exploitation of the Lepanto mines were submitted to Manila two years after Hernandez's 1850 expedition. On September 5, 1852, Antonio Perea, the military commandant of Cayan, the capital of Lepanto, made a proposal to Governor Antonio de Urbiztondo (1850–53) to exploit the mines in Mancayan. He intended to employ "families of poor but honest laborers" from Christian towns in Cayan and the surrounding pacified areas. The government would assist with the laborers' resettlement by providing the necessary funds for their transportation, building their houses, and procuring draft animals as well as agricultural and mining tools. The initial expenses would amount to 5,000 to 6,000 pesos, but the expected annual yield for each mine (*beneficio*) was 10,000 pesos (*Ultramar 443, Expediente 4*). In 1854 the project was approved, and the funds came from the community chest (*caja de comunidad*) (*Ultramar 443, Expediente 4, No. 1*; *Ultramar 435, Expediente 33*), which Filipinos had been paying as a direct tax (*contribucion directo*) since the beginning of Spanish rule (Plehn 1901, 688–689).

The project began on April 30, 1854, as soon as the Mining Decree to start operations was issued (*Ultramar 443, Expediente 4*). However, the lack of Igorot labor willing to stay for long periods of time in the mines, and the lack of additional funds required, brought the state-sponsored operations to a halt. It was then that the Cantabro-Filipina Company, a private Spanish company, stepped in, obtained the mine claims, and continued the work that the colonial government had started.

The system for granting such mine claims began in the middle of the eighteenth century: all interested individuals, groups, or companies could submit proposals to the authorities in Manila. These proposals invariably specified the length of time the proponents intended to operate the mine, provisions on the conduct of operations—including the amount they would pay the government—as well as how to procure workers. Once the government selected the best proposal, which would further the government's interests, the lease was granted (Diaz-Trechuelo 1965, 785–786).[19)]

The Cantabro-Filipina Company began its operations on March 26, 1856, after Venancio Balbas was allowed, through an agreement between him and the Igorot chiefs of the area, to explore the Santa Barbara mine in Magamban, Mancayan (Santos 1862, 20; Scott 1975a, 129, 135). Despite Balbas's pioneering efforts to exploit the mines, no copper was produced in the early years of operations. In order to find out what was wrong, a special commission, led by Jose Maria Santos, chief engineer of the Bureau of Mines, was sent to Lepanto in October 1859 (*Ultramar 443, Expediente 4*). After making his investigations, on November 30, 1861 Santos submitted his "*Informe sobre las minas de cobre de las rancherías de Mancayan, Suyuk, Bumucun y Agbao en el Distrito de Lepanto, isla de Luzon de las Filipinas*" (Report on the copper mines in the villages of Mancayan, Suyuk, Bumucun, and Agbao in Lepanto District, Luzon island) to the governor-general (*Ultramar 443, Expediente 4*). The report contained, among other things, important recommendations for salvaging the future of the mines. One of these recommendations was to create a well-structured administration to preside over every aspect of mining operations, from generating funds to employing labor and selling the ore yields (Santos 1862, 64–71). This new administration was created on April 1, 1862 (*Minas de cobre del Distrito de Lepanto (Filipinas)* 1862; *Reglamento interior para la mejor administración de la sociedad Española, Minero-Metalúrgica Cantabro-Filipina de Mancayan* 1862).

Through the capable leadership of Santos and the efforts of the company officials, copper production in the 10 mines of Lepanto gradually increased after 1862 until the peak year of 1870 (Santos 1862, 3–7; see also Scott 1974, 247; 1975a, 104). Table 1 depicts the annual copper production of the Cantabro-Filipina Company in the decade between 1864 and 1874 as reported by Don Jose Centeno y Garcia, chief of the First Corps of Mining Engineers (Jefe de Primera [Administración] del Cuerpo de Ingenieros de Minas). It was only after 1867, more than a decade after full-scale operations began, that the company was able to extract fine copper (*cobre fino*) from the cruder yields of black copper (*cobre negro*).

19) An example of this process was how Doña Maria Isabel Careaga, a contractor in the wine industry, was able to get the lease of the Santa Ines iron mines in Morong in 1781.

Table 1 Copper Production in the Lepanto Mines, 1864–74

Year	Class	*Quintales*	*Libras**
1864	Black copper**	170	73
1865	Black copper	411	69
1866	Black copper	1,194	43.5
1867	Fine copper***	2,464	21.5
1868	Fine copper	3,316	17
1869	Fine copper	3,320	17
1870	Fine copper	4,020	17
1871	Fine copper	3,950	17
1872	Fine copper	1,632	93
1873	Fine copper	2,159	93
1874	Fine copper	1,613	90

Source: Centeno (1876, 45).
Note: * One *libra* is equivalent to about 0.46 kilogram.
** *Cobre negro*.
*** *Cobre fino*.

Recruitment and Employment of Chinese Laborers

The increase in copper production was enabled also by employing more Chinese laborers in addition to those initially hired by Venancio Balbas. According to Santos, who later became the leader of the enterprise seconded to the company from the government (*Ultramar 443*, *Expediente 4*), it was advantageous to hire Chinese laborers as they proved "to be knowledgeable and worked well" (Santos 1862, 34). The Chinese miners were instrumental in improving the "imperfect and inefficient means employed by the savages" (Santos 1862, 19–20). These young and able-bodied men also consistently augmented the small number of Igorots who wanted to be employed in the mine works (US Bureau of the Census 1905, 83).

In July 1856, preparatory work at the Lepanto mines began with the arrival of 120 contracted Chinese laborers (Scott 1975a, 104). Ten months later, another 156 Chinese arrived and were sent straight to the mines (*Ultramar 436*, *Expediente 4*). In 1861 it was reported that the mines had only 140 Chinese laborers (Santos 1862, 60). This number had increased to more than 600 by 1869 (Scott 1975b, 27) and then dropped to 400 by 1870 (Scott 1975a, 104). During the 1875–76 registration (*empadronamiento*), there were only 87 Chinese registered in Lepanto, described as "*mineros y agricultores*" (miners and agriculturists) (de Gracia 1877, 89). The number of Chinese laborers in the mines was dependent upon fluctuations in the price of ore and the amounts of copper produced, the lack of Filipino laborers from the area, the availability of unemployed Chinese mine labor, and the amount of work required. For example, in 1870–71, when copper production was

high, an additional 91 Chinese laborers were contracted to work in the mines (*Cuentas, SDS 18500*). After 1874 their number declined as the company faced serious financial challenges due to the plummeting world price of copper, the prohibitive transportation costs linked to the mines, and the increasing outlays for fuel (Perez 1902, 132; Scott 1975a, 105).

The dialect group affiliation of the Chinese laborers is difficult to ascertain. The archival sources do not indicate whether the laborers were Hokkien (from southern Fujian) or Cantonese (from Guangdong), the two principal Chinese communities in the Philippines. *Chinos* and *sangleyes* were the common Spanish terms used in official reports and correspondence. Despite this limitation, it can be inferred that while the majority of Chinese who came to the islands were Hokkien, it seems that Cantonese called *macanistas* were the preferred laborers for the Lepanto mines. For example, the 156 Chinese laborers imported in 1857 were all indentured in Macao (*Ultramar 436, Expediente 4*). Furthermore, the surnames of the 91 laborers employed in 1871 were all Cantonese (*Cuentas, SDS 18500*).[20] One reason for this preference for Cantonese was that certain trades and occupations were dominated by particular speech-dialect groups. In addition to cooking, leatherwork, carpentry, and cabinetmaking, mining was also an industry where macanistas had a specialization (de Comenge 1894, 48; see also Wickberg 2000, 177). The arrival of these Cantonese miners began after 1852, when Macao became the redistributive center of the coolie trade in China (Yen 1985, 52–53).

The recruitment of Chinese labor for the Lepanto mines followed the general pattern of the global coolie traffic during the second half of the nineteenth century.[21] Under the auspices of the "coolie agency system," young men from South China were signed up for manual work overseas by unscrupulous agents or brokers (*khetaus*), who commonly employed debt trapping, opium drugging, and armed kidnapping to obtain laborers. The fresh Chinese laborers would then be held in barracoons while waiting for foreign agents to negotiate their contracts with the khetaus. After the negotiations, the indentured laborers would leave China on ships registered to Western nations (Yen 1985, 36–39, 55). Chinese laborers sent to work at the Lepanto mines were transported to the Philippines with batches of other Chinese bound for plantation work in Cuba, Peru, and other colonies in the Caribbean and Spanish America (Rodriguez Berriz 1887–88, Vol. 11, 186; Meagher 2008; see also Hu-DeHart 1994, 38–54). In 1857, for example, the Spanish ship

20) For a list of Hokkien and Cantonese surnames represented by Chinese clan associations in the Philippines between the 1880s and 1980s, see See (1992, 108–114).

21) It must be noted that from the middle of the eighteenth century until the 1850s, coolie labor was practically non-existent in the Philippines, as a result of Chinese massacres and expulsions as well as the Spaniards' restrictive immigration policies in the seventeenth and eighteenth centuries.

Asuncion commanded by Capt. Severo de Arritola brought Chinese mine laborers to the port of Santiago, Ilocos Sur, while bound for Cuba with more Chinese coolies who were being transported to Havana. The Cantonese laborers had been contracted in Macao by Don Tomas Balbas y Castro, the first company administrator of the Lepanto mines, through his agent Don Mariano del Pielago (*Ultramar 436, Expediente 4*).

It was also possible for company agents to negotiate with Chinese or Chinese mestizo *cabecillas* (employers) in Manila instead of going directly to China, as cabecillas also had labor gangs under their jurisdiction. However, if a cabecilla had only a limited number of laborers, the agent would seek help from the *gobernadorcillo de sangleyes*. The latter could provide additional labor from among newly arrived migrants who did not have a cabecilla to take them in, who were temporarily lodged at the Casa Tribunal de Sangleyes in Binondo (de Comenge 1894, 32, 35–36; de Viana 2001, 148–149).

The length of service and salary of laborers specified in the contract were negotiated between the company agent and the khetaus in China, or the cabecillas in Manila. Chinese laborers for the Lepanto mines, like the coolies destined for Cuba, were issued contracts before their embarkation from Macao or Amoy. The length of service was normally between one and three years, which could be renewed based on the company's need and laborer's performance (*Ultramar 443, Expediente 4*).[22] The laborer's salary was determined by the company. In 1861 a laborer received an annual salary of 36 pesos. In addition, he received 15.43 pesos yearly for his food supply (Santos 1862, 60). In 1871 the annual salary was 10 pesetas, which was given every four months (*tercio*): in January, May, and September (*Cuentas, SDS 18500*). The laborer's entire salary for the first year of employment was transferred by the company agent to the khetau or the cabecilla, who would deduct all debts incurred by the laborer before going to the mines. A laborer's debts normally included his travel expenses and entry taxes coming into the Philippines, food and lodging at the cabecilla's house or shop-cum-dormitory, and other basic necessities while the laborer was still in Manila. The laborer also received a certain amount from his cabecilla before traveling to the mines, as he had to purchase his provisions (except food) from the company's store (Santos 1862, 60; Wickberg 2000, 111–112).

If the contract was signed in China, it was the responsibility of the company agent to prepare all necessary documents for the coolie's travel to the Philippines. The agent would submit these documents to Spain's diplomatic legations in Amoy and Macao. The Spanish consul general would grant travel permits to the laborers and send a dispatch to the Philippines, informing the governor general about the impending arrival of the

22) Three-year contracts were made also between the company and buyers of copper yields from Mancayan.

laborers and the vessel that was transporting them (*Ultramar 436, Expediente 4*; see also *Chinos [Manila, 1893–1894], SDS 13048*, S 124).

In the case of laborers coming from Manila, it was the gobernadorcillo de sangleyes that requested the governor of the city of Manila to issue the men's licenses to travel and take up temporary residence in Lepanto. The gobernadorcillo, with an endorsement from the cabecilla, had to vouch that the laborers were law-abiding, paid their contributions on time, and had no criminal records (*Ultramar 5203, Expediente 4, No. 13*; see also Rodriguez Berriz 1887–88, Vol. 8, 376). For its part, the company had to pay each laborer's *capitacion* (poll tax) for the entire year before travel and residence permits were granted. A general list of the laborers, including their respective travel and residence documents, was handed over by the company to the provincial governor, who in the case of Lepanto was the politico-military commander of the district. The list was absolutely necessary in order for the provincial government and treasury to track down the number of Chinese laborers required to pay their poll tax and *falla* (redemption fee) after one year of working in the mines (Rodriguez Berriz 1887–88, Vol. 8, 376).

After all the necessary travel documents were obtained, the trip to the mines would begin. The trek to the mountains, which normally lasted two to three days, would begin in a southeasterly direction from Candon, Ilocos Sur. The travellers had to cross "several rivers and use some badly constructed and rugged roads" (Santos 1862, 25–26). Walking was considered the most suitable means of reaching the mines, as riding a horse or being carried on a hammock lifted by native porters was considered dangerous and annoying (Santos 1862, 25–26). Loads were carried by porters (*cargadores*) from Cayan to Mancayan for 2 *reales* and 10 *cuartos* per piece (de Gracia 1877, 59). Horses and buffalo were available, but these animals were used only for transporting machinery and carts loaded with rocks and copper ores (Santos 1862, 61). It was only in the latter part of the 1870s that road construction was undertaken through the efforts of the company. Caution had to be observed, especially when traversing unpacified territories, as "the mountains possessed a hostile and suspicious nature" (Centeno 1876, 41). This character portrayal of the mountains signified not only the geophysical events that could occur but, more important, the possibility of planned attacks by Igorots, who had resisted Spanish encroachment into their territories for more than three centuries.

Working Conditions

Mine work was generally determined by the locations where the Chinese laborers had to work. Exterior work (*obras esteriores*) referred to activities outside the tunnels.

During the early months of opening up an area for mining, Chinese laborers (*barreteros*) had to clear the forests to make the area habitable. They used hand axes to cut down the sturdy oaks, pines, narra, cedar, molave, and camagong that abounded (Santos 1862, 20–21, 26–27, 34; Cavada y de Vigo 1876, 117; de Gracia 1877, 45–46; Scott 1975a, 104). As time was often of the essence, they cleared forests day and night (see de Comenge 1894, 41). After this initial phase, the Chinese had to build and maintain a number of structures, such as the company's administrative offices, firewood stores, various shops, a powder magazine, a rice warehouse and *bodega*, and kilns for making bricks for the furnaces. They also had to construct their own barracks within the confines of the mining compound (Santos 1862, 20–21, 44, 61; Rodriguez Berriz 1887–88, Vol. 8, 376; Scott 1975a, 104).

But the Chinese were hired primarily for the actual mining or related underground works (*trabajos subterraneos*) from 1856 until the end of the company's full-scale operations in 1875 (Santos 1862, 21; Scott 1975a, 138). In 1859 Don Tomas Balbas y Castro reported that more than 1,580 *metros lineales* (linear meters) of tunnels had been explored by the Chinese. This underground work resulted in a yield of 146,000 *arrobas*[23] of copper (Santos 1862, 6). Using crowbars, hammers, and chisels, Chinese barreteros chiseled away at the ore face. They also drilled holes and set explosive charges to dislodge the ore (Santos 1862, 44, 60, 61). They would then bring the ore to the tunnel entrances. Igorot women would mill and wash the ore before their men sorted and classified it (Santos 1862, 60; Scott 1975a, 104). In the 1880s, 15–20 Igorot women and some Chinese were usually employed to classify the ores (Perez 1902, 129). Smelting using Mexican smelters was also done by Chinese *fundidores* (foundry workers) (Santos 1862, 60; Scott 1975a, 104).

During the nineteenth century, *kongsi* associations were important in settling and developing the mining frontiers of rural Malaya, southern Siam, and western Borneo. Kongsis were a "form of open government based on an enlarged partnership and brotherhood" (Wang 1994, 4). Their main purposes were to protect the rights of their members, promote economic productivity among them, and resist outside powers that would abuse or mistreat them (Wang 1994). These institutions, however, did not develop in the Philippines, due to the Spanish administration's ban on the establishment of such autonomous "states within the state" (Wickberg 2000, 24). Consequently, management of Chinese labor at the Lepanto mines was in the hands of the company's Spanish administrators and Christian Filipino workers (most probably Ilocanos). The first Spanish officials from the Bureau of Mines assigned to supervise the mines were sent to Lepanto in the

23) As a measure of dry weight, one arroba is equivalent to 11.506 kilograms; when used as a liquid measure, it is 16.1 liters.

Table 2 Personnel Employed by the Cantabro-Filipina Company in the Lepanto Copper Mines, 1861

Officials and Workers	Number
Chief engineer	1
Mines administrator	1
Director of the foundries	1
Major foreman of mines and foundries	1
Mechanical engineer	1
Foreman for Mancayan	1
Foreman for Suyuc, Bumucun, Lupaac, and Agbao	1
Master founder	1
Secondary master founders	2
Master carpenter, stevedore, and mechanic	1
Master carpenter's foreman	1
Store and warehouse keeper	1
Surgical practitioner	1
Master blacksmith	1
Spanish watchmen	2
Indio night foremen	2
Masons	2
Officials to supervise ironworks	3
Officials to supervise carpentry work	5
Tinguian cart drivers and shepherds	20
Chinese underground workers and smelters	140
Igorot laborers	25
Igorot ore classifiers	30
TOTAL	244

Source: *Ultramar 443, Expediente 4, No. 10*. Fomento de las minas de cobre del distrito de Lepanto [Promotion of copper mines in Lepanto District].

latter part of 1859 (Santos 1862, 3). Table 2 lists the personnel employed in the Lepanto copper mines two years later.

Taking into consideration the significant role of Chinese skilled labor in Philippine mining before the nineteenth century, as noted earlier, it is likely that most skilled labor (e.g., founders, blacksmiths) in Table 2 were Chinese even though only 140 underground workers and smelters were specifically identified as "Chinese." Even Santos, who drafted the *Informe* (report) in 1861–62, including the table, categorically stated that Chinese skilled laborers were indispensable for operating the mines (Santos 1862, 21, 44). Whenever possible, therefore, Chinese skilled workers were employed. They were ranked higher in status in the labor hierarchy, and hence treated better, than the Chinese underground workers and smelters but were still considered lower down the scale than the Spanish administrators and Christian Filipino workers.

Chinese laborers worked in shifts, as mine labor—particularly in the foundries—had to be done around the clock. The copper mine zone was divided into two areas: the

major mine site was located in Mancayan, and minor ones were in the area of Suyuc,[24] Bumucun, Lupaac, and Agbao (Perez 1902, 132). More Chinese laborers worked in the Mancayan mines than in the latter mines. However, during the rainy season additional hands were deployed at the Suyuc mines as the neighboring Igorots of Suyuc had to tend their rice and camote crops (Perez 1902, 133, 138). Each group of laborers was supervised by a Spanish watchman (*celador*) during the day and two Filipino foremen (*indios capataces de noche*) at night. Both the laborers and foremen were under the supervision of a Spanish chief foreman who administered the underground works and the foundries (*capataz mayor para minas y fundiciones*).

A typical workday for laborers would start before daybreak with breakfast—mainly rice or root crops, a piece of meat, and vegetables—prepared in their assigned quarters. The rice usually came from the neighboring areas of Mancayan and Suyuc (Perez 1902, 124). However, rice was imported from Ilocos Sur when harvests were poor in the latter part of the nineteenth century due to unreliable weather and climate (Cavada y de Vigo 1876, 117). The Mining Decree of 1867 enjoined mine companies and administrators to establish a large chicken coop and slaughterhouse for reliable poultry and meat supplies, especially when the number of laborers exceeded one hundred, which was the case in the Lepanto copper mines. After breakfast the Chinese laborers, with their mining tools in hand, lined up in front of the administration office; there the foremen counted them, making note of any laborers who were sick or had absconded. Those who were ill were sent to the infirmary, where they were attended to by a surgical practitioner (*practicante de cirugia*) and given medicine. For minor accidents, first aid kits were readily available (Santos 1862, 60–61; Rodriguez Berriz 1887–88, Vol. 8, 376; Scott 1975a, 104). Those with more serious ailments and injuries were brought to either of the two infirmaries in Mancayan and Cayan (Cavada y de Vigo 1876, 116). However, if a sick person was found unfit for work, he would be sent back to Manila and a replacement would be sought at the company's expense. On the other hand, laborers who fled were pursued by Igorot warriors assigned to capture these defiant absconders (Semper 1975, 27).

A brief mention of the salaries of Chinese laborers was made earlier. However, a more detailed discussion is necessary in order to compare what Chinese workers received in relation to non-Chinese workers. The heaviest, most physically demanding, and most dangerous work was assigned to non-Christian Chinese, Igorots, and Tinguians, who also received the lowest salaries among the company's personnel. Commenting on their low salaries, Santos stated in 1861: "I do not think there is an establishment of the same kind with such modest wages" (Santos 1862, 34–35).[25] In the same year, the 20 Tinguians

24) Suyuc, the largest of the minor mines, was situated 8 kilometers from Mancayan.
25) "*No creo exista establecimiento de igual especie con jornales tan modicos*."

hired as cart drivers and a shepherd each received 36 pesos annually, while every Igorot who worked as an ore classifier was paid an annual salary of 24 pesos. On the other hand, the Chinese and Igorot laborers received 36 pesos every year plus 15.43 pesos and 86.4 pesos respectively for their provisions (*abastecer de viveres*) (Santos 1862, 60). The laborers bought their food and other supplies from the company store, which was maintained by the warehouse keeper (*encargado de tienda y raciones*). As noted above, the food allowance was provided by the company but the laborers' other living expenses had to come from their salaries. As was the case in other mining areas in Southeast Asia during the period under consideration, Chinese laborers were encouraged to buy staples from the company store on credit. Normally, their debts were deducted from their salaries before they received them.

By comparison, a Spanish watchman received 140 pesos annually while a Christian *indio* foreman received 96 pesos, which was more than double the salary of a Chinese or Igorot laborer (Santos 1862, 60). This difference in wages suggests that the company took religious affiliation and racial or ethnic identities and attributes into consideration when hiring employees. The crucial skills needed to operate the mines were obviously important, but the Spanish employees, who were at the top of the labor ladder, were not always as qualified as they were expected to be for the work. There were engineers who were hired despite their lack of training and experience. The agents of the Bureau of Mines, who conducted an inspection in the Lepanto mines, reported in 1863 that they saw "with sorrow great errors, which immediately [caught] the eye, committed by fraudulent [Spanish] engineers who, in intelligence and mining knowledge, lag behind those we unduly classify as savages" (*Informe* 1864, 12–13, cited in Scott 1974, 247).

Living Conditions

Chinese laborers built their own barracks adjacent to the mining area. They were not allowed to go outside their compound (Rodriguez Berriz 1887–88, Vol. 8, 376). According to two Europeans who visited the mines in the 1870s, the company's headquarters house (*casa administración*) was erected on a hill above the area where the Chinese barracks were located. Thus, it would be easier for the administrators to watch over and regulate the Chinese quarter (*Reglamento interior* . . . 1862, 30–31).[26] Furthermore, two Spanish watchmen were specifically assigned to ensure that no Chinese violated the rule of

26) The Augustinian friar Angel Perez gave only the surnames of these individuals: Señores Prat and Ruiz (Perez 1902, 127). He must have been referring to two shareholders in the Cantabro-Filipina Company: Joaquin Prat and Victor Ruiz Lanzarote.

remaining within their compound. Only those individuals who were sick and no longer capable of working were allowed to return to Manila. These indigent laborers, after getting an endorsement from their respective foremen and certification from the mine's physician, had to also secure a permit from the administrator of the mine. Before the laborers went to work at dawn, roll call was taken by the foremen. Before returning to their barracks in the evening, they were accounted for again, to ascertain whether anyone had escaped or been injured in the mine. These numbers were included in the monthly report given to the provincial or district treasury (*Reglamento interior* . . . 1862, 23). This routine procedure was strictly enforced as the company had to pay a poll tax for every laborer on the list submitted to the treasury, although some laborers were no longer working in the mine due to illness or flight (Rodriguez Berriz 1887–88, Vol. 8, 376).

Chinese laborers worked 25 days a month (Santos 1862, 35). The only break in their annual work routine was the celebration of Chinese New Year in January or February (Foreman 1899, 119). Sundays were reserved for religious observance of the Christian employees, and were deemed an opportune time to proselytize among the "heathen" Chinese, Igorots, and Tinguian laborers (Perez 1902, 134–135). The 1867 Mining Decree stipulated that when a mining site employed more than 250 families, a chaplain should be appointed in the area (Rodriguez Berriz 1887–88, Vol. 8, 376). As early as 1861, the government had requested an Augustinian missionary for the mines—but it was only in October 1874, more than a decade later, that the Augustinian friar Marcelino Ceballos arrived on site. He stayed for just a few months (Scott 1974, 248). Aside from the Chinese, a small barrio of Ilocanos in the mining district also needed religious instruction (Perez 1902, 128). It was only in the late 1880s that the mission of Mancayan was established and permanently administered by the Agustinos Calzados (Font 1892, 105).

Sundays were also set aside for leisure activities, but since the Chinese laborers were confined to their compound, they were content to gamble and play cards and games of chance such as *panguingue* and *monte*, which was their favorite pastime (see de Comenge 1894, 169–170). They also drank a fermented wine called *basi* (*Ultramar 443, Expediente 4*),[27] especially on occasions like Chinese New Year. They also smoked in order to cope with the cold of the mountainous areas, where the temperature could drop from 10 degrees Celsius to near freezing during the cold months between November and February (Cavada y de Vigo 1876, 116; Perez 1902, 68). Tobacco was readily available either through the contraband trade of the Igorots or supplied by the company (de Gracia 1877, 36). But it was opium that these laborers craved (see de Comenge 1894, 51;

27) These wines were fermented by the Igorots of Suyuc (see Perez 1902, 139). When Antonio Hernandez explored the area, he noted how the Igorots made and drank basi, which he described as "*bebida espirituosa de arroz* [rice wine]" (*Ultramar 443, Expediente 4*).

Bamero 2006, 63–64). Carl Trocki asserts that opium was an "ideal commodity" for Chinese laborers in colonial Southeast Asia:

> Isolated in virtually all-male communities, they lacked most of the amenities of normal life: entertainment, families, women, and medicine. Opium filled these empty spaces, helping the laborers forget their loneliness and isolation, and easing the physical pain that accompanied long hours of heavy work in the tropical heat. In addition, it eliminated the symptoms of dysentery, malaria and other tropical fevers, which allowed them to keep working. . . . Thus, it was arguably in Southeast Asia, not in China itself, that opium use first took hold among lower-class Chinese, for as the British mass-produced opium in India, they found a mass consumer market among the Chinese laborers of Southeast Asia. (Trocki 2011, 89)

Dangerous Mines

Mine work was physically demanding, dangerous, and unhealthy. Chinese laborers had to utilize their brute strength to clear large tracts of forest in order for mining operations to be established and maintained. They had to cut down sturdy trees with axes and handsaws. In the process, they were exposed to the perennial problem of hostile attacks by tribal groups of the Cordilleras, who were described by Santos in stereotypical terms as "primitive," "savages," "cruel," and "inhuman" (Santos 1862, 18, 20). The early Spanish explorers, and later the owners and administrators of the Cantabro-Filipina Company, were well aware of the headhunting expeditions of the Igorots, particularly the Ifugaos, between the 1830s and 1850s. In fact, when Governor Narciso Claveria went to assess the missionary work in the Cordilleras in April 1846, he found the conditions "grim indeed" (Scott 1974, 251, 248).

Below ground, inside the tunnels, Chinese laborers were also exposed to great dangers inhaling air lacking in oxygen and filled with metallic and non-metallic dust. A prolonged stay in the mines could damage the lungs and cause respiratory illnesses. Acrid smoke from candles and torches used inside the tunnels, as well as smoke from gunpowder used in blasting operations, added to the air pollution that affected the health of Chinese laborers (Santos 1862, 61). Mine cave-ins caused by earthquakes and the use of explosives regularly threatened the workers' safety. Strong earthquakes occurred in Luzon in 1855 and again in 1866 (Sawyer 1900, 397–398). The violent and destructive earthquake of July 1880 hit Lepanto and Abra, leaving a trail of destruction (*Los terremotos de Filipinas* . . . 1880, 30; Centeno 1881, 16).

There were also deadly diseases that threatened the laborers, such as malaria and smallpox. For most Filipinos, the uplands were an avoidable place as the forests were considered to be full of fever, which was the main symptom of malaria (De Bevoise

1995, 142–143). The fevers normally became rampant "after the rains [in September and October], and in woody or marshy areas" ("An Englishman" 1903–7, 78). Giullaume Le Gentil in his travel account noted the impact of the weather on those engaged in mining in Luzon: "It is true that this sort of life shortens the days of these wretched people; as they are perpetually in water, they swell, and soon die" (quoted in "An Englishman" 1903–7, 78).

A smallpox epidemic broke out in Lepanto in 1875 (De Bevoise 1995, 118), and cholera was reported in Mancayan and Cayan in 1870 (Cavada y de Vigo 1876, 116). Illnesses and accidents were common in the mines, as evidenced by the company's employment of a resident physician as well as personnel to administer the infirmaries in Mancayan and Cayan (Santos 1862, 60; Cavada y de Vigo 1876, 116).

Abuses

Difficult workplace conditions were partly the reason why Chinese laborers were hired by the Cantabro-Filipina Company in the first place. While it was clear that the Chinese laborers were preferred for their skills, work ethic, and relatively low wages (see Santos 1862, 34), they were still relegated to the lowest stratum of the labor hierarchy in the mines. The Spanish attitude toward Chinese miners did not change significantly in the nineteenth century. Coercion and abuses were committed against them both in the eighteenth-century iron mines and in the nineteenth-century copper mines. The 1867 Mining Decree, for example, clearly stated that the Chinese were to be hired to work in unpopulated and unhealthy (*mal sano*) areas of the Philippines in order to develop the country's mining industry. Local inhabitants could be hired, but only those who were living within the boundaries of the prospective mining area as they were familiar with the site and had already adapted to local climatic conditions (Rodriguez Berriz 1887–88, Vol. 8, 376). Ironically, unlike the Tinguian and Igorot laborers, the Chinese, who did the most physically taxing and dangerous mine work, still had to adjust to their new environment with all its geophysical and epidemic disease-related threats.

Abuses against Chinese workers were not noted even in the Bureau of Mines reports in the early 1860s. Inspections were conducted on a regular basis, but their main objective was to check the condition of the mines and see how to improve the rate of extraction of copper ore. Little attention or regard was paid to the well-being of the Chinese laborers. Furthermore, the geographic distance between Lepanto and the capital, and the near inaccessibility of the mines, presented serious obstacles to the central colonial government, as well as to the gobernadorcillo de sangleyes and the Chinese

principalia, to act against the unfavorable conditions.

In order to discern the extent of the abuses committed against Chinese in the mines, one has to read between the lines of the investigation reports. For example, one distinct feature of the Chinese miners' lives was that they were confined within the mining area. As they might "contaminate" the native laborers, especially the Igorot women, they were not allowed to leave the mining site. Even on weekends, when they put their tools down, they were confined to their quarters or around the mining compound. While the 1846 Mining Regulations stipulated that mine owners and administrators had to treat their laborers in a "suitable manner" (Rodriguez Berriz 1887–88, Vol. 8, 354), it was possible that the company had the Chinese laborers work in a relentless manner, particularly during the four-year period between 1856 and 1860, when the mines were still struggling to produce a substantial amount of copper (see Scott 1975a, 104). Because of the hard labor conditions that they had to endure, some Chinese miners resorted to absconding. Those who had spent an adequate period of time in the mines and gained some local knowledge of the area tended to form groups and escape. Individuals who managed to evade the police forces under the jurisdiction of the Political and Military District of Lepanto would flee to the Christian lowland towns of Ilocos and La Union (de Gracia 1877, 37; von Drasche 1975, 42). However, when the German traveler Carl Semper made a trip to the mines in 1861, he learned that the escapes did not always have a happy ending:

> Some subject Igorots brought one of these unfortunate chaps [runaway Chinese laborers] back the other day. He had had to till the soil under some unconquered Igorots for several months. They had taken all his clothes and cut his hair according to their style. This had changed his appearance so much that I could only recognize him as Chinese after a close look. (Semper 1975, 27)

Captured Chinese laborers were subjected to disciplinary measures such as cultivating local farms for months without any recompense. The cutting of hair as a degrading punishment is also worth noting, as hair—especially in Chinese culture and tradition—has social and personal significance (see Cheng 1998, 123–142).[28] Generally, for the Chinese, maintaining their hair in queue style was an important physical sign of their belonging to the Celestial Empire. For a Chinese fugitive whose hair was cut, the punishment did not only "alter his appearance" but also resulted in an extreme form of moral humiliation (de Salazar [1590] 1903–7, 232; Garcia Serrano [1621–22] 1903–7, 232).[29]

28) When the Manchus came to power in 1611, they decreed that all Chinese (i.e., Han Chinese) had to wear their hair in queue style, which symbolized the Manchus' success in subjecting the vast population to their control.

29) Before the nineteenth century, the cutting of Chinese queues in the Philippines was an important issue as far as the Catholic fathers were concerned. For Catholics, such an activity was an important manifestation of the Chinese converts' severing of ties with their "pagan" religions and embracing Christianity. Many Chinese, however, continued to resist (*Ultramar 5203, Expediente 4, No. 13*).

Strict and unjust treatment compelled some "more robust Chinese" to challenge or disobey mine authorities, both Spanish and Filipino, who supervised their lives and work. This resistance was the main reason why Santos in 1862 recommended that Chinese laborers, especially those assigned to use explosives in the mines, be supervised in a "brusquely imperious way," as they posed a serious danger (*el peligroso manejo de la pólvora*) to the mines and the other workers (Santos 1862, 18, 44). Abuses were so widespread in the mines where Chinese labor was used that the 1867 Mining Decree specifically ordered the provincial governor to conduct visits to the mines. The provincial governor had to investigate whether the Chinese laborers were doing the exact work stated in their contract with the company. In this way, the Chinese miners would be legally protected from any future abuse (*la protección legal que necesiten por abusos de aquella*) (Rodriguez Berriz 1887–88, Vol. 8, 376).

"On Equity and Justice"

One interesting incident, highlighting the adverse conditions in the mines, involved a petition signed by Chinese in the Lepanto mines and submitted to Governor Jose de la Gandara by the *subdelegado de hacienda* (subdelegate of the treasury office) of Lepanto in March 1869. The petition was filed for two reasons. First, the annual salary of the Chinese miners was inadequate to cover their living expenses, which included their food and other basic necessities. On top of these expenses, they had to pay the capitacion and falla. Second, the Chinese miners felt that they were being treated unfairly compared to native labor, since they were the ones required to do the most difficult and dangerous jobs on site. The Chinese claimed that based on the "principle of equity and justice" (*por un principio de equidad y justicia*), they should also enjoy the exemption privilege with regard to the *polo y servicio* (corvee labor)[30] granted to native laborers working in the Lepanto mines. In accordance with Article 61, Section 1 of the 1867 Mining Decree, native and mestizo mine laborers were required to render only half the number of days of the *polo*, or if they paid in cash, they received a one-third discount on the original amount. Hence, each native or mestizo *polista* was required to do forced labor for only 20 days or pay its equivalent, which was 4 escudos annually (Rodriguez Berriz 1887–88, Vol. 8, 376).

30) After the successful Spanish conquest of the Philippines in the late sixteenth century, all able-bodied male inhabitants of the islands aged 16 to 60 years were required to render 40 days of forced labor (called *polo y servicio* or *polo*) to the colonial state. The 1867 Mining Decree extended this policy to the Chinese. However, instead of rendering service, the Chinese were required to pay the falla of 3 pesos. This was in addition to the capitacion they had to pay every year.

In response to the governor's inquiry about the situation on the ground, the commandant of the district of Lepanto stated that native and Chinese labor in the mines undertook the same type of work. This claim was not entirely true, as demonstrated in the foregoing discussion. For example, natives (i.e., the two indio foremen, the Igorots, and the Tinguians) were also hired as mine laborers, but only the Chinese were required to do the actual mining and underground works. The commandant further added that the Chinese miners enjoyed the privilege of paying less capitacion than Chinese who were not engaged in the mining industry (*Ultramar 5202, Expediente 31*).[31] The appeal in the petition was not granted by the Madrid government, on the grounds that the Chinese in the mines were not subjected to any greater hardships than those imposed on the natives (*los chinos . . . no se hallan obligados a mayores cargas que las impuestas a los indigenas*) (*Ultramar 5202, Expediente 31*).

Despite the rejection of the petition, it is important to note that the colonial government in Manila and the central administration in Madrid had ways to find out what was occurring on mine sites and to address matters pertaining to the miners' welfare. However, one challenge to the implementation of these measures was the alleged connivance between colonial authorities and mine administrators to partly conceal what was happening in the mines. Another problem was irregular and oftentimes delayed inspections by the Bureau of Mines (Santos 1862, 3). Furthermore, even when these investigations were conducted, the sentiments of the Chinese laborers were not fully conveyed because of the lack of leadership among them.

The End of Operations

Copper production began to decline in 1871. There were two possible reasons for this unfortunate event. The first had to do with the increase in copper production in other parts of the world, which affected the demand for Philippine copper, extracted mainly in Lepanto. The discovery and exploitation of copper mines in Great Britain in the late 1850s contributed to the increase in world copper production. In fact, in 1860 Britain's coastal city of Swansea became the world's major copper center, producing 90 percent of the total global output (Alexander 1955). The second reason was that in 1871, the anti-Chinese Governor General Rafael de Izquierdo began his tenure in the Philippines. It was during his term that new restrictive policies on Chinese occupations and residence

31) In accordance with the Royal Decree of December 22, 1850, Chinese who were engaged in mining, fisheries, forestry, and shipbuilding would pay only 5 reales. On the other hand, those who were not in these industries would have to pay more depending on their tax classification.

patterns were implemented. These measures affected the recruitment and deployment of Chinese miners to Lepanto (*Ultramar 5217, Expediente 43*).

In 1875 the Cantabro-Filipina Company withdrew from the Lepanto mines, leaving them in the hands of a few Spaniards, who continued small-scale mining operations until the American occupation of the islands. These Spaniards, who were original shareholders of the company, assisted by some Igorot and Chinese miners (Marche [1887] 1970, 124; Scott 1974, 247–248), continued to procure small amounts of copper. Between 1883 and 1887 only 3,200 quintales of copper were produced (Perez 1902, 131–132).

Some Chinese continued to work in the mines. Together with Igorots, they engaged in smithing and minting of counterfeit siping (US Bureau of the Census 1905, 84). Many Chinese who had been in the area for a long time married Igorot women who had helped them in their small-scale mining. A German traveler in 1882 reported that the Igorot and Chinese laborers

> break up the fine ore in three or four tunnels, *their wives* sort it out and bring it to the foundries in baskets where it is first roasted with charcoal in an open fire and then melted in a broken-down furnace. The metal is poured into cakes with a ladle, and finally taken to the coast [italics added]. (Meyer 1975, 65)

With their Igorot wives, some Chinese laborers also opened retail businesses, while one even ventured into planting coffee in the area (Perez 1902, 125–126).

Conclusion

From the above discussion, it is clear that Chinese miners were crucial to the development of the Philippine mining industry in the eighteenth and nineteenth centuries. In particular, Chinese laborers hired by the Cantabro-Filipina Company for its copper mines in Lepanto between 1856 and 1898 were essential in all types of mine-related activities. Their technical and manual skills and work ethic were the reasons the company employed them. However, the marginality of the Chinese miners must also be noted, especially within the context of the prevailing colonial policy and practices as well as the difficult working conditions in the mines. These adverse conditions and circumstances provided opportunities for both Spanish and native employees of the company to abuse Chinese miners, who were unable to take advantage of the legal mechanisms established by the colonial government for their protection. Their lack of effective representation (e.g., kongsi associations) in the mines administration prevented Chinese laborers from reporting their unjust treatment to the authorities. It is thus not surprising that flight was

common among Chinese laborers. However, there were also some miners who, because of their long residence in the area and their local knowledge, were able to assimilate with the local population. These men married Igorot women and put down roots in Lepanto and neighboring areas.

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Care Relations and Custody of Return-Migrant Children in Rural Vietnam: Cases in the Mekong Delta

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In the Mekong Delta, Vietnam, there are a number of multiethnic children who are foreign nationals and have lived apart from their mothers for a long time. They were born in East Asian countries such as Taiwan and Korea and raised by their maternal relatives. This paper aims to examine the diverse experiences of return-migrant children and analyze care relations and custody over the children between absent mothers and maternal relatives, by exploring three cases obtained through my fieldwork. Absent mothers are divided into three types according to their marital status: (1) married women, (2) remarried women living in foreign countries, and (3) divorced women living apart from their children in Vietnam. In many cases they are unable to fulfill their duties or make decisions regarding their children's welfare and interests since they live far away and are not always in touch with the children. Consequently, they are heavily dependent on their relatives. In place of absent mothers, foster parents—mainly grandparents or aunts who live together and take care of the children—try to maintain a legal and educational environment to ensure custody of the children. It is important to understand the difference between physical and legal custody, as well as two types of mothers: practical and biological.

Keywords: transnational marriage/divorce, multiethnic children, return migration, absent mothers, maternal relatives, custody, Mekong Delta

I Introduction

Since the 1990s, when Vietnam entered *thời kỳ hội nhập quốc tế* (the era of global integration), the Mekong Delta has been a major source of marriage migrants to Taiwan and South Korea (Phan An *et al.* 2005; Hugo and Nguyen Thi Hong Xoan 2007; Nguyen Xoan and Tran Xuyen 2010; Iwai 2013; Phạm Văn Bích and Iwai 2014a; 2014b). Many Vietnamese-born women have sent their children back to Vietnam after giving birth in these other countries. There are various reasons for this, including divorce (Cửu Long

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2016; Le Hien Anh 2016; Văn Vĩnh 2016).

This paper focuses on return-migrant children who were born in foreign countries and sent to their maternal home to be raised. Who raises these children who spend a long time away from their mothers in childhood, and how does the relationship between the children and their new caregivers affect the children's relationship with their absent mothers? Why do the mothers ask their relatives to raise their children? This study examines the meanings of children's cross-border migration and the formation of transnational families. By exploring the social roles of maternal relatives, I aim to clarify the various aspects of care relations involved in child-rearing in rural Vietnam.

Several studies have discussed children left behind in their homes due to increasing cross-border labor migration. For example, research has shown that in the Philippines and Indonesia, where women often go abroad to work as domestic workers or caregivers, the children left behind are raised by aunts, grandmothers, or other relatives (Nagasaka 1998; 2009; Parreñas 2001; 2005; Ogaya 2016; Lam and Yeoh 2019). Arlie Hochschild (2000) regarded this phenomenon as the formation of "global chains of care" for child-rearing between two transnational families. However, there are not many prior studies on the return migration of multiethnic children from transnational marriages. In Thailand and Vietnam, where several women marry foreign men and later divorce, the mothers frequently send their children back to their home villages, asking their relatives to raise them (Ishii 2016, 125–127; Le Hien Anh 2016, 183). Only a few studies refer to the everyday lives and experiences of these children and the care arrangements between the mothers and their relatives.

Essentially, children's relatively flexible mobility is a common feature of family relations in Southeast Asia. For example, if parents die or divorce or migrate for work to big cities, their children typically move between different households and are taken care of by consanguineal kin such as grandparents or aunts in rural areas (Kiso 2012, 473–476; 2019, 371–374; Sato 2012, 345–358).

Gerald Hickey (1964, 110–111) made similar observations about child-rearing in a rural village in the Mekong Delta area of southern Vietnam: (1) many children received much of their caregiving from older siblings or cousins who lived nearby, and (2) children could wander into neighbors' houses without fear of being punished and were welcomed as if they were family members. According to A. Terry Rambo (2005), these flexible and wider family relations and higher mobility in the Mekong Delta reflect the characteristics of an open peasant community.

As the above-mentioned sources have shown, in Southeast Asia flexible care relations are woven by social networks and multiple ties based on kinship, and this social function may support and promote women's labor migration both within and across

national borders (Hayami 2012, 12–18). Janet Carsten (2000) has highlighted the distinction between social and biological aspects of kinship in bilateral societies such as Malays and suggested that it is helpful to understand "local cultures of relatedness" (Carsten 2000, 25–29). According to Carsten, relatedness is created both by ties of procreation and through everyday practices of feeding and living together in the house (Carsten 2000, 18). In addition, "relatedness" is deeply connected with the ethics of care. Carol Gilligan (2003) suggests that women as practitioners of care always consider who needs help and what relations are most important.

An important point in this study is the absence of the mothers of transnational families. How have children with foreign roots grown up in the absence of their mothers? How are the absent mothers able to fulfill their role as guardians? Here we focus on varied aspects of custody in the context of everyday practice in rural Vietnamese society.

II Methodology and Research Site

This discussion is based on the results of non-consecutive fieldwork conducted in Vi Thang commune in Hau Giang Province, Vietnam, which as of August and December 2017 and February 2019 had the second-highest number in the country of married migrant women from the Mekong Delta. This study is based on data about return-migrant children who were living in the commune as of December 2017. The December 2017 and February 2019 fieldwork collected supplemental information on the children.

Vi Thang is an agricultural commune located 200 km southwest of Ho Chi Minh City and 50 km southwest of Can Tho city center. As of April 2017 the commune had a population of 9,559 people, with 2,351 households residing in seven hamlets. Vi Thang was chosen because Vietnamese newspaper articles reported that elementary schools in the commune had accepted children without birth certificates as part of a humanitarian effort. These children attended classes as "non-members" (*học giởi*), meaning that they were not included on student lists and did not enjoy the same rights as their classmates (Hoài Thanh 2016; Ngọc Tài 2016; Văn Vĩnh 2016).

This study is based on observations and in-depth interviews with various stakeholders—including some returning migrant mothers, their children, and their relatives (e.g., parents and siblings)—conducted in 16 households. The perspectives of 18 return-migrant children are represented in the discussion.

In terms of methodology, for carrying out fieldwork I identified and obtained access to participants with the assistance of local organizations as well as schools. Prior to field research, I contacted executives of the Vietnamese Women's Union (VWU) in Hau Giang

Province and obtained general information concerning return-migrant children. The VWU provides legal support for international marriage and divorce matters. Full-time social workers belonging to the VWU attended each family interview visit, as they had a good grasp of the individual cases and were in a position to provide advice on legal procedures. All interviews were conducted with their cooperation. In addition, the vice-president of Vi Thuy District (former president of Vi Thang) and the present president of Vi Thang commune, both of whom knew the local situation well, assisted with interviews and family visits.

Because most mothers were absent, I managed to conduct interviews with only three mothers. Many of the mothers had left home for the big city. Consequently, the interviews were conducted mainly with the children's grandparents or aunts (mothers' sisters). Therefore, any information about the mothers must be viewed with caution, since it was provided by a variety of people who were likely to have different interests and views about marriage migration and the resulting children.

Return-migrant children in Vi Thang commune who were foreign nationals may be classified as living in three types of household:

Type 1, *Two-parent transnational households*: The children were born in foreign countries and migrated to Vietnam temporarily while their parents resided abroad and faced economic difficulties.

Type 2, *Remarried mother transnational households*: The children returned to Vietnam, while their divorced mothers lived in foreign countries and remarried foreign men.

Type 3, *Single mother proximate households*: The children were born in foreign countries and returned to Vietnam accompanied by their mothers following the latters' divorce (or separation). The mothers temporarily cared for their children in proximity but eventually remigrated to work in larger cities, such as Ho Chi Minh City.

In each household type, mothers and children do not live in proximity to one another, thus challenging traditional gender notions of the family according to which women are responsible for overall family life (*đảm đang*), especially childcare and household budgeting (Lê Thị Nhâm Tuyết 1975; Pham Van Bich 1999, 38–39). The mothers support the family via regular remittances, while the children are raised by maternal relatives.

III Background of Return-Migrant Children in Rural Vietnam

III-1 *From Foreign Brides to Mothers of Multiethnic Children*

According to the results of the interview survey of Vi Thang commune members, the women who entered into transnational marriages had all arranged to meet foreign men

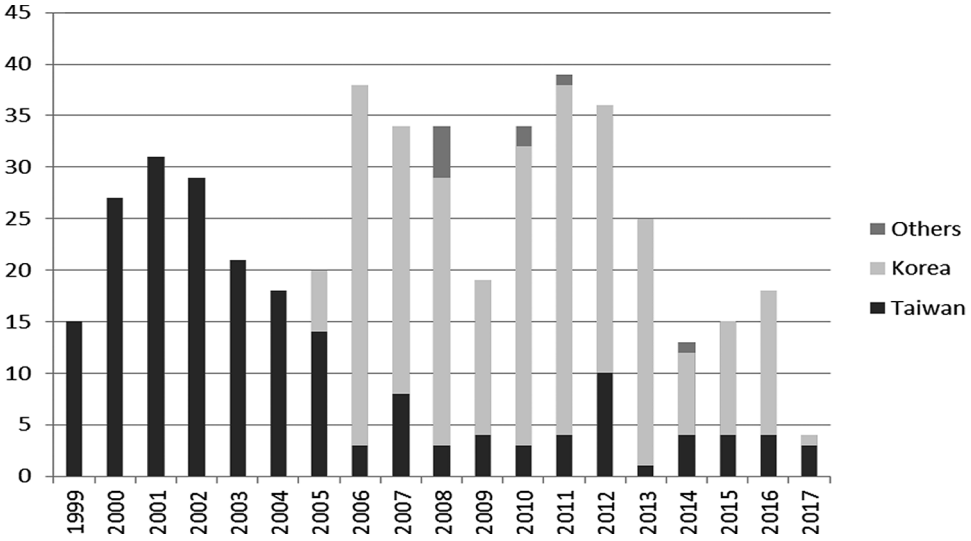

Fig. 1 Women from Vi Thang Commune Married to Foreigners
Source: Created by author based on UBND xã Vị Thắng (2017).

through brokers in Ho Chi Minh City. Fig. 1 shows the number of transnationally married women from the commune. As shown in the figure, there were 470 married migrant women in the commune between 1999 and the end of April 2017. Of them, 255 were married to Koreans, 206 to Taiwanese, 7 to mainland Chinese, and 2 to Americans. The characteristics of marriage migration from the commune to foreign countries are similar to those of Vietnam as a whole. In short, before 2006 Taiwan was the most common destination for marriage migration, and after 2006 Korea became the most common destination, due to changes in Taiwanese immigration policies (Iwai 2013, 143–145). The commune's government did not know the number of divorced migrant women.

The interviews revealed that three women had returned home during pregnancy and given birth there: one planned to return to Korea after childbirth, and two women who divorced after returning to Vietnam remigrated to Ho Chi Minh City after childbirth.

In what Nicole Constable (2005) calls the gendered geographies of power, poor and low-educated women who cannot achieve social or economic mobility in their own countries marry men from much more wealthy countries in order to fulfill two desires: to provide economic support for families back home and to change their own lives in their host countries (Constable 2005, 5–7; Lu and Yang 2010, 20–21). For example, Phung's case is typical. Phung was born in 1989 and married a Korean man 16 years older than her through a group match party organized in Ho Chi Minh City in 2001. Phung decided to marry a foreign man because she wanted to help her parents economically, and her

Table 1 Characteristics of Absent Mothers Whose Multiethnic Children Returned and Are Living in Vi Thang Commune

As of December 2017

	Results		
Educational level	4 under elementary	5 under junior high	2 under senior high*
Marriage age	4 late teens	5 early 20s	2 unknown
Husband's country	9 Korea	2 Taiwan	3 remarried
Marital status	6 married	1 divorced	
		1 separated	
Where living now	7 Korea	1 Taiwan	3 Vietnam

Source: Author's fieldwork.
Note: * Vocational training in sewing (for one year).

parents did not object. Phung's mother explained, "My daughter told us that she wanted to help her poor parents who were facing difficulties. She intended to work and send remittances." The image of the bride that came up in the interview with the parents was of a "daughter who has sacrificed for the family."

Table 1 presents personal information on the 11 internationally married women who lived away from their children.[1)]

As shown in Table 1, most of the women had married at a young age, four of them while still teenagers. In general, their educational level was quite low. This image of Vietnamese marriage migrants is consistent with that described by other researchers (Phan An *et al.* 2005; Hugo and Nguyen Thi Hong Xoan 2007; Nguyen Xoan and Tran Xuyen 2010; Le Hien Anh 2016). As for household types, six of the women continued in a marital relationship (type 1), one woman remarried in a foreign country (type 2), and four women remigrated to big cities (type 3).

The daughters' motivations were not always in line with their parents' thoughts. The results of the interviews with married immigrant women revealed their positive emotions, such as longing and hope for the unknown world, as expressed in statements such as the following: "I wanted to change my life," "I wanted to expand my possibilities," and "I wanted to get on the plane to go abroad" (Phạm Văn Bích and Iwai 2014a). These individual aspirations were followed by economic reasons, such as helping poor parents in rural Vietnam. Such positive attitudes and efforts on the part of the women have not been sufficiently identified in previous research.

1) There were 16 internationally married women whose children returned to Vietnam. Of the 16 mothers, five lived with their children in a home commune, two were divorced or separated, and three women continued in a marital relationship but stayed in Vietnam (two of them stayed temporarily to give birth and returned to Korea with their children by December 2017).

III-2 *The Role of Maternal Grandparents in Childbirth Support*

The women's fiduciary relationship with their biological families—which is maintained through remittances to their home countries—and their desire to have children who would give them future stability in their host countries are extremely important motivations for the women's migration. In most cases, foreign brides obtain a status of residence on their spouse's visa when they marry Taiwanese or Korean men. Most of them get pregnant and give birth within one year. After the children are born, the mother's nationality position shifts. In other words, a mother with a biological citizen child is guaranteed legal status in the country. Therefore, the women often apply for naturalization from Vietnamese nationality to Taiwanese or Korean nationality, with the help of their husbands. In East Asian societies, where the birthrate is declining and the population is aging, especially in rural areas, there is strong pressure to give birth to a son. This is the main task of foreign brides, and not only they, but also their parents, are well aware of this.

For example, a pair of grandparents who are currently raising a Korean multiethnic grandson, Huyn, recalled the time before their daughter Phung gave birth to him, which was 10 years after her marriage. Until that pregnancy, her 10 years of infertility had worried her parents. Phung's father recalled:

> I brought some medicine to help my daughter become pregnant. Thanks to the medicine, my daughter was able to get pregnant six months later. We took care of her in Korea so that she could give birth safely. Having a child was important so that my daughter could live there in a stable way.

During Phung's pregnancy both her parents went to Korea, where her mother stayed for eight months and her father for three. After some time back in Vietnam, the mother returned to Korea and looked after Huyn while Phung started to work. Eleven months later the mother returned to Vietnam with Huyn. Phung's remittances from Korea helped her parents build a new house. In addition, her mother was able to earn an income by working illegally while staying in Korea.[2)]

Thus, Phung's cross-border marriage brought about two turning points for her family of origin. First, producing children for her Korean husband's family was her most essential role, by which she fulfilled her obligation as a daughter-in-law and established a stable legal position in the family. This was important, as until she gave birth to a child she was not allowed to work and earn money, which would have enabled her to send remittances to her family of origin in Vietnam.

2) The grandmother worked for a few months at an automobile factory, but she was caught by the police and deported. As her penalty, she would not be allowed into Korea again for five years.

Second, Huyn's Vietnamese maternal grandparents are fully responsible for broader childcare, including pregnancy, childbirth, and child raising. That was why they provided Phung with fertility medication. In their eyes, it was natural for them to travel to Korea and care for their grandson while both of Huyn's parents worked full-time, as well as to accept Huyn in their home in Vietnam. Such a situation often occurs when the husband's parents are old or have passed away. Since Huyn "returned home" with his grandparents to Vietnam, Phung has been sending regular remittances to cover his food and other expenses. Child migration is thus a major factor for both families (the woman's family of marriage in Korea as well as her family of origin in Vietnam) to acquire mutual assistance in their daily lives.

III-3 *Characteristics of Multiethnic Children Who Returned to Vietnam*

According to Vi Thang commune's statistics, there were 27 children with foreign nationality in the commune as of April 2017: 11 Koreans, 12 Taiwanese, 1 mainland Chinese, 2 Malaysians, and 1 Vietnamese (Fig. 2). Clearly, there were a large number of children who returned to Vietnam during the period 2011–15.

However, this data does not reflect the actual number of multiethnic children living in the commune but indicates the time that return-migrant children were registered as temporary residents of the commune.[3] According to the author's fieldwork, with cooperation from the president of the VWU at the commune level, there were 18 multiethnic

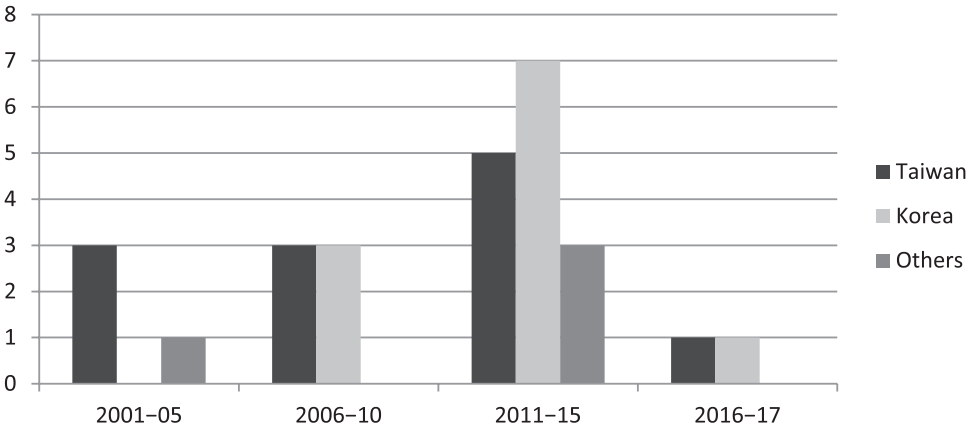

Fig. 2 Return-Migrant Children with Temporary Resident Registration in Vi Thang Commune
Source: Created by author based on UBND xã Vị Thắng (2017).

3) The commune government totaled the number of children whose relatives applied for the children's temporary resident registration status in accordance with the security rules.

Table 2 Characteristics of Multiethnic Children of Absent Mothers

As of December 2017

No.	Household Type	Age	Gender	Length of Stay in Commune (age at which child arrived)	Nationality	Main Caregiver
1	1	7	Male	6 years (17 months)	Korean	Grandparents
2	3	9	Male	8 years (18 months)	Korean*	Aunt
3	1	4	Female	1 year (3 years)	Korean	Grandparents
4	3	8	Female	7 years (mother 6 months pregnant)	Vietnamese (Korean)	Aunt
5	3	9	Male	8 years (11 months)	Taiwanese*	Grandparents
6	1	7	Female	6 years (8 months)	Taiwanese	Grandparents
7	3	2	Female	2 years (mother 5 months pregnant)	Stateless**	Aunt
8	1	5	Male	3 years (21 months)	Korean	Grandparents
9	2	12	Male	10 years (20 months)	Vietnamese (Korean)	Grandparents
10	2	4	Male	4 years (mother 8 months pregnant)	Taiwanese	Aunt/aunt's parents-in-law
11	1	3	Female	1 month (3 years)	Korean/Vietnamese	Grandparents

Source: Author's fieldwork.

Notes: * Cases 2 and 5 indicate former nationalities; the children's passports have expired.

** Case 7 is stateless because the child's birth registration was not accepted by the local authorities in Vietnam since the parents were not formally divorced.

children living in the commune as of December 2017. The reason the numbers are different is that when some children left the commune, their maternal relatives did not notify the commune government. Of the 18 multiethnic children, 11 lived apart from their mothers. The other seven lived with their mothers in Vietnam.[4)]

Table 2 presents the situation of the 11 multiethnic children who lived apart from their mothers.

First, by family type, five children lived apart from their two parents in foreign countries (type 1), two children's mothers had remarried in foreign countries (type 2), and four children lived apart from their divorced/separated mothers after they returned to Vietnam (type 3).

Second, the majority of the children were students of elementary school age or younger. There was little difference in gender among the children: six boys and five girls.

Third, nearly all the children returned to Vietnam during their infancy—some while still lactating. Three of them returned to their mothers' home before birth, and their mothers left for Korea or Ho Chi Minh City several months after giving birth. Indeed, the mothers discontinued breastfeeding after several months and lived apart from their children. In place of the mothers, the children's maternal relatives—grandmothers and aunts—discharged the motherly duties.

4) Of the seven children who lived with their mothers, four cases involved two sisters married to Taiwanese and Korean men.

Fourth, most of the 11 children were born and registered in their father's country, thereby acquiring citizenship in that nation. Four of the children were Korean and three Taiwanese; among them, two were former Korean or Taiwanese nationals whose passports had expired long ago. Another child had dual nationality (Korean-Vietnamese). Of the two children with Vietnamese nationality, one returned from Korea to Vietnam *in utero* and was registered after her mother was divorced; the other was adopted by a maternal aunt in Ho Chi Minh City after returning from Korea at the age of 20 months.[5] One girl was stateless: she was born in Vietnam, but her birth was not registered with the local authorities because the mother had not yet officially divorced her Korean husband.

Finally, all the children had been raised for many years by their maternal families (seven by grandparents and four by aunts). No children were raised by anybody else. Consequently, most of them attended school while in the care of their grandparents or aunts.

IV Child Raising and Maternal Family Relations in Rural Vietnam

As seen above, return-migrant children are raised by maternal relatives instead of absent mothers who are busy working and cannot afford to take care of their infants. Based on the interviews, the reasons for this situation are as follows:

1) Most of the mothers' parents-in-law are quite old, so it is difficult for them to care for their grandchildren. Even when the parents-in-law agree to take care of their grandchildren, they require the couple to pay the high cost of childcare, which strains the couple's family budget.
2) Childcare costs in Vietnam are much cheaper, and thus the financial burden on couples is reduced when maternal relatives care for the children. In southern Vietnamese society, there are many flexible arrangements for the raising of children by maternal relatives. This can be seen in Hickey's description of the importance of consanguineal and non-kin groups who reside in proximate houses and share everyday practices of mutual aid (Hickey 1964, 93–96).

For these reasons, return-migrant children leave their parents, move across the border, and are raised by maternal relatives living in rural areas of Vietnam.

In the next subsections IV-1–IV-4, the child-rearing patterns around children whose mothers are absent and living separately will be examined in relation to the children's intimate relationship with their maternal relatives.

5) The survey revealed that the data collected by the commune government did not include one of the two Vietnamese-Korean children with Vietnamese nationality.

IV-1 *The Case of Ngoc Dinh: Type 1*

Ngoc Dinh, born in Taiwan in 2010, had been living with her maternal grandparents for six years, ever since she was eight months old. Her parents, who work full-time and live in Taiwan, cannot take care of her, so they have entrusted her maternal grandparents with her upbringing (Fig. 3). Ngoc Dinh's sister had the same experience in that she spent several years in her maternal grandparents' home before returning to Taiwan for elementary school. According to Ngoc Dinh's grandmother, her daughter intends to take Ngoc Dinh back to Taiwan after she graduates from elementary school.

To the interview question "How are you in touch with your mother?" Ngoc Dinh answered, "I tell my mom what it was like today over the phone every night." She looks forward to talking to her mother on a free VoIP phone call at 6 p.m. every day. Ngoc Dinh continued, "I don't talk with my father because he cannot understand Vietnamese. My sister can speak Chinese, but she speaks Vietnamese well."

Ngoc Dinh has visited Taiwan a couple of times during her six years living in Vietnam, but always with her grandmother. When her grandmother returned to Vietnam, she preferred to go with her rather than remain in Taiwan.

In response to the interview question "What do you want to do in the future?" Ngoc Dinh said, "I want to live in Vietnam forever. I can't imagine living away from my grandparents. My grandma says that my mouth and nose look exactly like my mom's."

Having lived in Vietnam for six years, Ngoc Dinh is completely comfortable with her life there with her grandparents. She feels happy to be like her mother, but she has noticed a certain emotional distance from her father, who cannot communicate in Vietnamese.

With regard to the grandparents' experience of this situation, the grandmother shared that Ngoc Dinh's sister had also been entrusted to them from the age of 14 months to six years. In this way, through the experience of raising two granddaughters, the grandparents seemed to once again enjoy "parenting." The grandmother commented:

> My granddaughter likes Taiwan, but just to go sightseeing. When we returned to Vietnam, she didn't want to stay in Taiwan but returned with us. She is very close to her friends, and nobody knows that she is a multiethnic child, between Vietnam and Taiwan.

Ngoc Dinh attends elementary school informally. Local schools allow children to enroll formally as long as a birth certificate is submitted before graduation. Ngoc Dinh's grandparents want to get her birth certificate from Taiwan so that she can officially enroll at school, but her mother has not sent it. Ngoc Dinh showed us many award certificates given by the school and remarked that her favorite subject was Vietnamese and that she wanted to become a teacher.

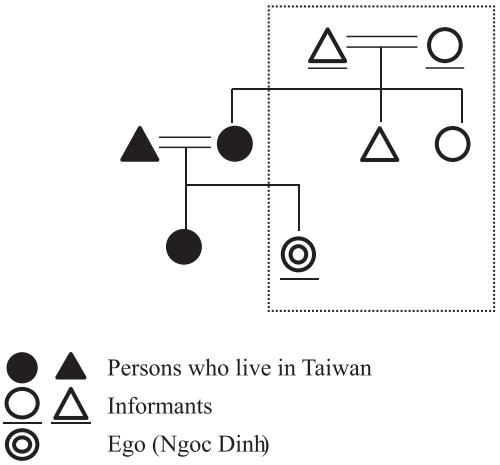

Fig. 3 Household Composition of Ngoc Dinh's Family <Type 1>
Source: Based on author's interview in 2017.

IV-2 *The Case of Bao: Type 2*

Bao was born in 2013. His mother is Vietnamese and father Taiwanese. His mother returned to Vietnam eight months pregnant and gave birth to Bao there. Several months later his mother, who was already naturalized as a Taiwanese national, returned to Taiwan alone, without Bao.

As shown in Fig. 4, Bao now lives with his maternal aunt's family, which includes the aunt, her husband, two daughters, and the aunt's parents-in-law. Aunt Dam is raising her nephew Bao along with her own two young daughters. According to Dam, her husband loves Bao deeply as his own son, and so do her parents-in-law. Dam's parents-in-law take the responsibility of dropping and picking up Bao by bike every day from kindergarten. Bao, like his cousins, calls his aunt "mother," his aunt's husband "father," and his aunt's parents-in-law "grandpa" and "grandma." Although the grandparents are not blood relatives but affinal kin, they do not distinguish Bao from their granddaughters.

Bao's mother resides in a small city in Taiwan. She has been married three times, and Bao is from her second husband, who died before she gave birth. She also has a child from her first marriage, and she now lives with that child. After her second husband died, she returned to Vietnam while pregnant and gave birth to Bao. After several months she returned to Taiwan, and Bao was left behind to live in his aunt's home.

The reason Bao was entrusted to his aunt was that Bao's maternal grandmother, who was also in Taiwan, was unable to look after him because she was working illegally. A few years ago, Bao's mother remarried a Taiwanese man and had a child with him.

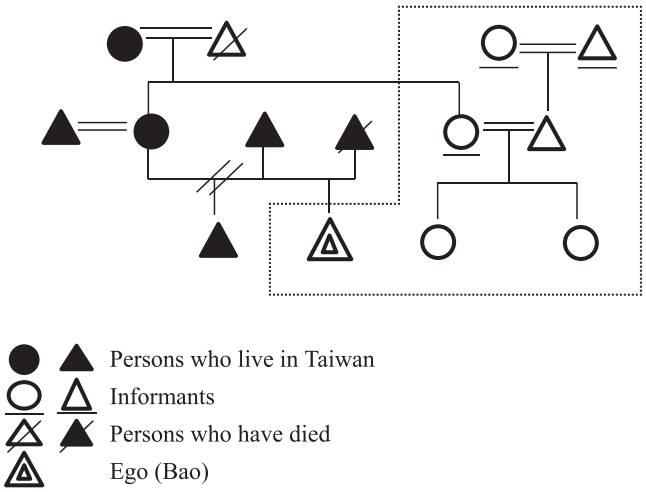

Fig. 4 Household Composition of Bao's Family <Type 2>
Source: Based on author's interview in 2017.

Bao's grandmother helps to take care of that child in Taiwan. According to Dam, the mother wants to take Bao back to Taiwan in a few years.

IV-3 *The Case of Nhi: Type 3*

In this subsection we examine the case of a child in a family with an absent single mother (type 3). Nhi was born in Vietnam in 2009 and was in the third grade at the time of the interview. Nhi has family registration in her maternal grandfather's hamlet, although she lives in another hamlet with her maternal aunt's family. Thus, her nationality is Vietnamese.

Nhi's mother moved from Korea to Vietnam while six months pregnant and gave birth in Vietnam. She decided to separate from her husband because of his repeated domestic violence, his extremely sloppy behavior, and his disapproval of her work. About a year after their separation, she was officially divorced. The Korean father knew of Nhi's birth and visited her one year later.

Nhi's mother went to work in Ho Chi Minh City eight months after giving birth, and since then Aunt Muoi has taken care of Nhi on behalf of her mother (Fig. 5). Nhi calls both her aunt and birth mother "mother." She distinguishes the two mothers as "*má mập*" (fat mom) (aunt) and "*má ốm*" (thin mom) (biological mother). Neighbors believe that Nhi is Muoi's biological daughter, and Muoi has not attempted to clear up this misunderstanding. Her husband also loves Nhi as his own child. Muoi recently started taking Nhi to free Korean language lessons organized every weekend by the Korea Center for

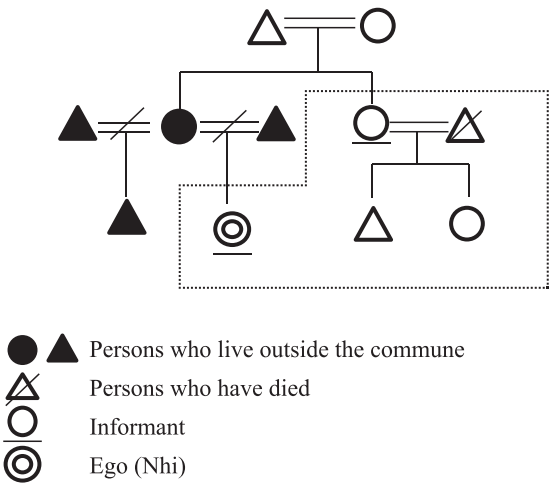

Fig. 5 Household Composition of Nhi's Family <Type 3>
Source: Based on author's interview in 2017.

United Nations Human Rights Policy (KOCUN).[6] However, since it is a one-hour bike ride from the commune to Can Tho city, Nhi stopped going.

A couple of years ago Nhi's mother remarried a Vietnamese man who worked in the same factory in Ho Chi Minh City, and they had a son. However, they are now divorced and Nhi's mother is raising the boy on her own. Nhi sometimes visits her mother and younger half-brother in Ho Chi Minh City, but after a few days Muoi calls and urges Nhi to return home. Nhi's Korean father says that he wants to take her to Korea when she is 18, and until then he wants Muoi to raise her. However, he has never paid any child support. In August 2017 I encountered the father while he was looking to remarry in the hamlet. Later, he stayed at Muoi's house and ate meals there, but he said that he did not need to pay any money while there.

IV-4 *Relatedness and Custody of Multiethnic Children Who Live Apart from Their Mothers*

We will now consider the relations between multiethnic children with foreign roots and their guardians. In particular, we will examine the guardians' strong attachment to the children in terms of custody.

In the case of Ngoc Dinh, the grandparents want to support their daughter by provid-

6) KOCUN is a South Korean NGO responsible for supporting divorced or separated women and their children. In Can Tho city, Korean and Vietnamese full-time staff advise divorced and separated women and provide support for their vocational training as well as their multiethnic children's legal issues (Ngô Thị Vân Phượng 2018, 110–113).

ing for their granddaughter what they did not give their own children when they were young and hardworking. They are very proud of their grandchild being awarded certificates at school and seem to be very happy with her growth. In the case of type 1 families, where the parents or remarried mothers regularly send remittances to the grandparents, it is sufficient for grandparents to focus their attention on their grandchildren's education.

Meanwhile, in the relationship between the aunts and their nephews and nieces, without exception the children call their aunt "mum," and it is clear that a deeply intimate relationship has been built between them (type 2 and type 3). In the case of Bao, his aunt did not hesitate to take her nephew home and raise him like her daughters. And Dam's parents-in-law seem to be happy with Bao, probably because Dam and her husband have no son of their own. Nhi's aunt Muoi loves her so much that sometimes her own children complain, "Mom loves Nhi most." Muoi feels sorry for Nhi and feels that only she can protect her.

On the whole, the foster parents actively participate in the everyday care and education of their grandchildren, nieces, and nephews. Ngoc Dinh's grandparents and Nhi's aunt want to expose the children to greater opportunities and improve their prospects for the future. For example, Muoi took Nhi to KOCUN's Korean classes every weekend after KOCUN staff visited Nhi, enthusiastically encouraged her to study Korean, and provided financial assistance. In rural situations, which are far removed from the foreign cultures of the parents, it seems that foster parents feel responsible for improving the children's prospects, including linking them with their foreign roots (e.g., helping Nhi learn Korean). In addition, in place of the absent mothers, they visit the judicial branch of Hau Giang Province once every three or six months to renew the children's residency status while renewing their visa. The foster parents also have the responsibility of securing the children's right to reside by submitting "temporary registrations" to the local government.

The children say that they want to continue living with their grandmothers or aunts because they regard their homes as their own. Most of them moved to Vietnam during infancy (sometimes in the mother's womb) and have grown up in their foster parents' home. Meanwhile, the circumstances surrounding them have sometimes changed dramatically, such as the remarriage of their mothers who are living separately. Because of these changing circumstances and an uncertain future, the children adopt the important survival strategy of strengthening their relationships with unmarried uncles, aunts, and cousins in their foster families.

Finally, how are the absent mothers involved? Generally, whether living in a foreign country or in a large city, they try to maintain an intimate relationship with their children by talking daily over the Internet. Most of the absent mothers assume that the separation

from their children and care by their relatives are temporary and that they will live with their children again once conditions are favorable. Therefore, some mothers think they do not need to send the formal documents necessary for school enrollment, such as birth certificate. In addition, as in the cases of Nhi and Bao, the remarriage of the mothers can complicate the domestic environment and make it difficult to integrate return-migrant children into their new families. Therefore, the long-term stay of the children in rural Vietnam is due largely to the changing circumstances of the absent mothers.

V Conclusion

My investigation shows that Vietnamese families in the Mekong Delta are not rigid structures but flexible circles that openly extend their kin networks across the border. They are willing to be flexible in care relations. Common to the three types of household described above is the prevalence of "relatedness," in which multiethnic children are growing up through the everyday practice of living with their maternal relatives away from their biological parents.

In this study I have sought to elucidate the life experiences of return-migrant children who live apart from their mothers, and their relationship with their absent mothers and maternal relatives. In particular, I have attempted to highlight the role of maternal relatives (mainly grandparents or aunts) taking the place of absent mothers in providing care to children experiencing cross-household migration.

I have identified the situation of the main members in transnational families as follows:

- Mothers live separately from their children mainly due to economic difficulties. Most of them are factory workers who are busy working all day and do not receive enough social welfare. They send regular remittances to their relatives whom they entrust with childcare.
- Children return to Vietnam when they are quite young, sometimes even while in their mother's womb. They attend local schools when they reach school age, but the plan is for them to return eventually to their father's countries.
- The foster parents, who are in their mid-40s to 60s, are more experienced socially and in parenting than the absent mothers. They seem to be trying to create the best conditions for their foster children and to be actively involved in their future education.

In summing up the plural care relations among the children, absent mothers, and maternal relatives, some features can be observed.

First, *the relationship between the multiethnic children and their foster parents*: The children are raised in a wide and flexible family circle as members of the maternal family. In the southern part of Vietnam, it is common for maternal grandparents to take care of their grandchildren in place of absent mothers, and this custom prevails even in the case of cross-border marriage and divorce. Basically, foster parents are awarded custody guardianship based on two domains: (1) practical domain: living together with the children and providing care and safety, and (2) legal domain: guaranteeing a temporary residence, enrolling the children in local schools, and applying for visa renewal at the Hau Giang Provincial Justice Bureau every three or six months. In these aspects they genuinely care about the well-being of the children and voluntarily contribute toward child custody although they have no legal obligation. Most foster parents have a strong attachment to the children and take responsibility for them so that they continuously guarantee custody.

Second, *the relationship between foster parents and absent mothers*: Grandparents and aunts stand in as a substitute for the children's parents in exchange for financial support from the mothers. This exchange is not merely a payment for services but also a form of division of labor among family members (e.g., between parents and daughters or between sisters). In addition, maternal relatives are deeply involved in broader "child-care," including pregnancy and childbirth, as seen in the case of Huyn's grandparents. The purpose of the remittances is clearly not to provide mainstay support, but rather to affirm membership in a family circle and its continuity. In other words, the children's return migration promotes the feeling of mutual aid and cooperation among transnational family members. In addition, there are cases in which the paternal grandparents in foreign countries are too old, are too ill, or live too far away to look after their grandchildren.

Third, *the relationship between the children and their absent mothers*: As shown through concrete cases, mothers who live apart from their children find it extremely difficult to take care of their children and educate them. However, they miss sharing directly in their children's school experiences. They see their children only when they return to their home of origin, perhaps once a year. Otherwise, based on the mothers' schedules, they set up a chat time with their children, such as "every day, 30 minutes after dinner," via VoIP phone calls.

As de jure guardians, the biological parents or divorced mothers are obliged to advocate for the best interests of their children. Responsibility for legal proceedings rests with the mothers. However, the mothers are de facto not able to fulfill their duties and make all decisions regarding their child's welfare and interests since they live far away and are not always in touch with the children. Consequently, they are heavily dependent on their relatives back home. Without a flexible family relationship that transnationally supports mutual aid, global care relations cannot be established. In other

words, it is important to understand the difference between physical and legal custody, as well as the two types of mothers: practical and biological.

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"No Nation Can Go Forward When It Is Crippled by Disease": Philippine Science and the Cold War, 1946–65

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This article outlines a notion of postcolonial Philippine science. First, it touches on the links between science, medicine, the Cold War, and nation building. Second, it examines the niche occupied by applied sciences, particularly nutrition, agriculture, and medicine, in nation building. Between 1946 and 1965, Philippine presidents understood science functionally, in terms of harnessing the country's natural resources for economic development; and strategically, in terms of the Philippines being a regional leader of the free world in Southeast Asia. To realize the Philippines' Cold War aspirations, they mobilized technical assistance from the US. The Bataan Rice Enrichment Project (1946–49) and the establishment of the International Rice Research Institute (1962) indicated a shift in the emphasis of US assistance from economic aid to technical cooperation in the field of nutrition and agriculture.

Through a close study of the Philippine Medical Association, this article examines inner tensions between physicians who advocated an individualized treatment of disease and those who advocated mass campaigns. Between 1946 and 1965, a mobilization mentality suffused the practice of science in the Philippines such that the pursuit of knowledge would lead to unanswered Cold War questions—particularly socialized medicine—expanding healthcare access to rural areas.

Keywords: Philippines, postcolonial science, Cold War, disease eradication, Bataan Rice Enrichment Project, International Rice Research Institute, Philippine Medical Association, socialized medicine

In his first State of the Nation Address, on January 25, 1954, President Ramon Magsaysay of the Philippines asserted, "We must have a healthy manpower as the most essential factor for economic advancement. No nation can go forward when it is crippled by disease" (Magsaysay 1954). The address attests to the centrality of public health in transcending the problem of underdevelopment of the postcolonial state.

The 1950s coincided with the emergence of the Cold War and decolonization in Southeast Asia. The US sought to subvert the spread of Communist ideology. To this

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effect, it secured the loyalty of leaders from Asia and Africa through a program of technical assistance, particularly in agriculture and health. By portraying poverty and disease as the breeding grounds of Communism, the US sought to assist with disease eradication, particularly the anti-malaria campaigns in the Philippines and other Southeast Asian nations. The Filipino political leadership perceived public health as the means to usher in development of remote islands and was open to US developmental assistance (Neelakantan 2015a).

This study investigates the niche in nation building occupied by applied sciences, particularly nutrition, agriculture, and medicine. The argument has two strands. First, Philippine science was packaged as a program of delivery that was intended to address basic needs of the people, particularly self-sufficiency in food. Second, between 1946 and 1965 Philippine presidents understood science functionally, in terms of harnessing the country's natural resources for economic development; and strategically, in terms of furthering the country's aspirations as the leader of the free world in Southeast Asia. To realize the Philippines' Cold War aspirations, the presidents mobilized US technical assistance. The Bataan Rice Enrichment Project (1946–49) and the establishment of the International Rice Research Institute (IRRI) at Los Baños in 1962 indicated a shift in the emphasis of US assistance in the Philippines from economic aid to technical cooperation, particularly in the field of nutrition and agriculture.

Locating the "Postcolonial" in Philippine Science

This article seeks to outline a notion of postcolonial Philippine science. The notion of "postcolonial" has considerable conceptual ambiguity. It has been taken to signify a time period after colonialism; a critique of the legacy of colonialism; an ideological backing for newly created states; a complicity of Western knowledge with colonial projects; or an argument that colonial engagements can reveal the ambivalence, anxiety, and instability deep within Western thought and practice (Anderson 2002, 645). Postcolonial theory seeks to contest the assumption that Western knowledge is objective, authoritative, and universally applicable.

In 1959, W. W. Rostow described the stages of "economic growth" in his non-Communist manifesto. Rostow emphasized the role of science and technology in achieving takeoff from a traditional society (Rostow 1959). Science, according to Rostow's narrative, was diffused from Europe. George Basalla amplified this diffusionist perspective by giving details of the spread of Western science from its European center to the periphery or the colonies (Basalla 1967, 612–622). According to Basalla's simple

evolutionary model accounting for the diffusion of science, in phase one the periphery provided raw materials for European science. In phase two, the derivative and dependent institutions of colonial science emerged; and sometimes an independent national science, called phase three, would later develop. By the early 1990s, Basalla's simple evolutionary model of scientific development provoked extensive criticism. In the early 1990s, Paolo Palladino and Michael Worboys—taking Lewis Pyenson's work on the Dutch East Indies as a proxy for diffusionism in science—suggested that Western methods of knowledge had not been accepted passively but were selectively absorbed in relation to existing traditions of knowledge and religion (Pyenson 1989; Palladino and Worboys 1993, 102). Imperialism also shaped the development of metropolitan institutions and knowledge. Discussions of diffusion and nation building have gradually given way to talk of contact zones and network construction.

Postcolonial science as a field of enquiry crosses geopolitical boundaries as it tracks flows, circuits of scientists, knowledges, machines, and techniques (Anderson 2002). Postcolonial science—which focuses on contact zones of clashing knowledges—is incomplete unless it is firmly situated in a political and institutional context (Abraham 2006, 213). Science is central to forging the identity of the postcolonial state. It exists simultaneously as history, as myth, as political slogan, as social category, as technology, as modern Western knowledge, and as an instrument of change (Abraham 2006, 213). Postcolonial science in the Philippine context was a state-building project—as reflected in the establishment of the Philippine Research Reactor (PRR-1) atomic reactor and IRRI.

Given the paucity of historiography on postcolonial Philippine science, one might justify this study on the basis of a lack. But the story of Philippine science during the Cold War is rather eclectic in terms of archival sources. Therefore, a paucity of secondary literature does not provide justification for this article. Rather, this study closely examines the underlying concerns of Philippine presidents (1946–65) and scientists in addressing the dilemma of how to refashion science that was at once relevant to the Philippines' national needs and increased the country's visibility on the international stage. For example, Kathleen Gutierrez investigates the ways in which medical botany writing furthered the symbolic and commercial promise of plants in the context of postcolonial nationalism and international science. Based on a close reading of the Filipino botanist Eduardo Quisumbing's *Medicinal Plants of the Philippines*, Gutierrez highlights the features of medical botany writing that produced articulations of nationalism in the Philippines in the aftermath of World War II (Gutierrez 2018, 36). Through his writing and encyclopedism (genre-bending deluge of information, colonial science, and use of scientific terminology), Quisumbing established a fresh narrative for Philippine science

that had emerged from the ravages of wars and colonial influence. *Medicinal Plants*, according to Gutierrez, is an expression of scientific achievement through encyclopedic gesturing to effect science-minded aims and create a certain kind of nationalism through flora (Gutierrez 2018, 62). As the scope of Gutierrez's article is restricted to botany, the role of applied sciences, particularly medicine, in nation building remains marginal in the narrative.

Physicians dominated the first generation of nationalist leaders in the Philippines under American colonialism (1898–1946). For the nationalist physicians, decolonization was linked to the tropes of scientific progress (Ileto 1988, 105; Anderson and Pols 2012, 93).

Warwick Anderson (2007) contends that the production of scientific knowledge was treated as an index of modernity and national development in the Philippines. But Anderson's article does not elaborate on the circumstances under which science became an instrument of postcolonial nation building.

Sunil Amrith's influential monograph (2006) argues that India played a more influential role in shaping post-World War II Asia's health paradigms than did the Indonesians or the Burmese, who were preoccupied with establishing the legitimacy of the postcolonial state amidst much ethnic strife. However, this line of argument does not hold true with respect to transnational Philippine initiatives in agriculture, for example, the training of Indonesian students from the Faculty of Agriculture (Bogor) at the University of the Philippines (UP) College of Agriculture at Los Baños in the 1950s. Nonetheless, Amrith's monograph has opened new possibilities for historians to examine the transnational circulation of technical expertise across Asia.

During the 1950s, a concern with nation building in newly independent states of Asia and Africa was central to modernization theory. The dominant narrative at the time was how to develop Asian and African states toward a new form of modernity along Western, if not necessarily capitalist, lines (Berger 2003). A conspicuous feature of the political landscape across Asia during the 1950s was an increased emphasis on the role of the state in mediating national development. Gabrielle Hecht observes that at the heart of the modernization theory were disagreements between the USSR and the US regarding industrialization of newly independent countries. Whereas the USSR offered a development path that would lead Asian countries to socialism through large-scale industrialization, the US envisaged that with the right sort of technical assistance, any human society could climb the ladder of progress and that industrialization and democratization would proceed hand in hand (Hecht 2011, 1–12). A common denominator underlying competing US and USSR visions of modernization for newly decolonized nations was the ability of science to provide a panacea for the problem of underdevelopment. But the reception of

international technical assistance was uneven across countries (Immerwahr 2015, 11).[1)]

Anderson (2012) notes that since the 1970s there has been active debate about the meaning of science, technology, and medicine within the Indian context, much of it occurring within the Gandhian, Marxist, subaltern, and postcolonial frameworks. However, the relationships among Indian, Southeast Asian, and global science and technology studies scholarship remain fragmentary. A major research question raised by this article is whether Philippine science was a variant of postcolonial science more generally, or whether it embodied a distinctive national flavor.

"Scientific Research, in the Long Run, Does Pay Off in Terms of Pesos and Centavos"

The challenges of post-World War II national reconstruction necessitated quick changes in the Philippine economy that included producing cash crops for export, increasing food production, and improving people's living standards. To this end, Presidents Manuel Roxas and Elpidio Quirino (between 1946 and 1953) mobilized applied sciences—particularly nutrition, agriculture, and medicine—that would enable the nation to attain self-sufficiency in economic affairs. At the time, within Philippine policy circles it was noted, "Scientific research, in the long run, does pay off in terms of pesos and centavos, in terms of higher efficiency and reduced man-hours of work, in terms of richer harvests and healthier citizens" (Varela 1954). Financial limitations of the state implied that scientific investigations were tied to practical concerns. In general, research in the Philippines lacked funding and the state struggled to attract the best minds to research.

On June 3, 1946—a month before US colonialism finally ended in the Philippines—

1) After its efforts to implement communitarian strategies as part of the New Deal (1933–39) failed, the US bankrolled community development programs in the Global South, in the aftermath of World War II. Such measures were calculated to win political loyalties of local villages in the fight against Communism. The US included a community development program in its bilateral aid package to India in 1952. It invested great hopes in India's community development program that focused on democratic decentralization. But the benefits of the Indian program were elusive. Local development plans were modest in their ambition and focused on the construction of wells, market roads, and community centers that benefited well-off members of the village communities. Conspicuously absent from the community development initiatives in India were issues associated with social inequality. In contrast, in the Philippines—where the Huk rebellion threatened to topple the government—the community development program was seen by the US government as a form of counterinsurgency. Through community development, Filipino politicians sought to create vertical bonds that linked peasants to landlords and crowd out the dangers of peasant solidarity. Around 1953, when the Huk rebellion subsided, the US exported the Philippine variant of the community development program to Vietnam.

Roxas, in his first State of the Nation Address, outlined the challenges facing the nascent nation. The Philippines was born amidst much political turmoil.[2] Roxas expressed disappointment that the government did not have the financial means to support postwar economic rehabilitation:

> Public health and sanitation have retreated far from the level which existed before the war. Epidemic is a constant threat. The three great pests of our land—the rat, the mosquito, and the locust—have thrived on our misfortune and threaten us with both disease and hunger. Control measures against all of them must be taken.
>
> Famine is a strong possibility; shortages of food are even now critical. We are immediately faced by a shortage, which will grow more critical within the next few months, in our staple food product—rice. In some sections of the country rice is not being planted because of the lack of carabaos and the threat of rats and locusts. In others, planting is diminished because of the absence of law and order and the fear that the harvest may be stolen. There is a world shortage of rice. Many nations of the earth are as unfortunate as we; in the case of our own shortage we can expect very little assistance from abroad. We are doing everything in our power to get as much assistance as we can. (Roxas 1946)

Given the scarcity of rice, Roxas mobilized the population to grow corn, root crops, and vegetables. He emphasized an all-out food campaign that encouraged the substitution of rice with corn. His administration also introduced the idea of anti-famine gardens.[3] In addition to increasing the production of rice, Roxas identified symbolic capital in disease eradication (particularly malaria) as the means to resuscitate a strong and healthy population.

2) The Huk rebellion—a peasant-based guerrilla insurrection—was directed originally against Japanese occupation (1942–45) and later against the failure of Roxas's social welfare program as the legislation had several loopholes. The economic objectives of the Huks—developed between 1946 and 1950—reflected a strong Communist orientation by 1950. The Huks advocated real independence for the Philippines, "unsullied" and "unadulterated" by economic ties with the US, such as the Bell Act. Instead, they advocated a more equitable crop distribution between landlord and tenant, government purchase of large landed estates and their sale to tenants, and agricultural loans to aid small farmers. As the Huks were unable to get along with Quirino, they backed José Laurel. However, the Huk candidate lost the 1949 presidential election against the Liberal candidate, Quirino. Consequently, the Huks denounced electoral processes. The Huk Politburo declared the existence of a "revolutionary situation" in January 1950 and advocated an armed overthrow of the government. By March 1950 the Huks asserted their manifesto, "New Democracy," which would erase the economic, political, and cultural domination of the US, feudal landlords, and the Liberal Party and instead place political control in the hands of the Filipino peasantry, proletariat, and intelligentsia. For details, see Fifield (1951).

3) In 1948, the republican government in Indonesia designed a three-year food production plan (christened the Kasimo Plan, after then Minister of Food Affairs I. J. Kasimo) aimed at achieving self-reliance in food. In order to guarantee a high quality of rice, Kasimo advocated the creation of seedling gardens. For a parallel with Indonesia, refer to Nawiyanto (2013).

Fig. 1 The Malaria Control Unit of the Philippines Public Health Rehabilitation Program (1946)
Source: National Library of Medicine, NLM Image ID 10395113.

In January 1946, five months after the end of the Pacific War, the US—in mutual agreement with the Philippine Bureau of Health—developed a road map for preventing disease that had a negative bearing on economic recovery. The US Public Health Services (USPHS) appropriated a sum of US$1 billion to assist the Philippine Bureau of Health to rehabilitate the devastated Philippine quarantine service, the School of Hygiene at Alabang, and the Bacteriological Laboratory of the UP.[4] The USPHS identified malaria as a rural disease that vitiated agricultural productivity and estimated that up to half the working population was afflicted with the disease.[5] The Bureau of Health, with restricted allocation of funds, was unable to cope with malaria and its associated socioeconomic effects (see Fig. 1).

After Philippine independence in July 1946, the USPHS was unable to cement cooperation with the Malaria Control Organization of the Philippine Department of Health as the latter suffered from a shortage of trained medical personnel. As a result, the USPHS implemented malaria control as a public health rehabilitation project. Its methods included house-to-house surveys of the disease among inhabitants of Negros Occidental

4) US Public Health Report of the Philippines Public Health Rehabilitation: July 4, 1946 to June 30, 1950, Frank Waring Papers, Harry S. Truman Presidential Library.
5) US Public Health Report of the Philippines Public Health Rehabilitation: July 4, 1946 to June 30, 1950, Frank Waring Papers, Harry S. Truman Presidential Library.

and Negros Oriental Provinces, entomological surveys, public health propaganda through lectures illustrating the importance of the disease, and control of the vector through insecticidal spraying. Malaria control was incorporated into the curricula of elementary and high schools, particularly in these two provinces. Not surprisingly, the Negros Islands recorded an 85 percent decrease in the incidence of malaria between 1946 and 1950 and a 65 percent decline in death rates attributed to the disease.[6)]

Despite successes in specific areas, the malaria control program in the Philippines prior to 1950 was beset with organizational bottlenecks. The national government had granted the measly sum of 180,000 pesos for malaria control work (Francisco 1950, 347). Insecticidal spraying was the weakest arm of the program. Most of the plantation owners had not taken malaria seriously, and there was a pervasive absence of preventive measures.

Until 1950 the Philippines suffered from economic instability primarily due to a budgetary deficit and an insufficient increase in the production of cash crops (particularly sugarcane and abaca); the latter could be partly attributed to malaria and schistosomiasis, which impeded the efficiency of the workforce. To compound the problem, the Huk rebellion gained momentum in March 1950.[7)] The US was determined to retain the Philippines within the orbit of democratic powers but was concerned that the latter's inability to release peso savings for capital investment, stimulate industrialization, and raise people's living standards would lead to internal unrest.[8)] The Bell Mission recommended that the US government provide financial assistance amounting to US$250 million to the Philippines so that the latter could carry out a five-year plan of economic development (Ravenholt 1951, 414).

After the sudden death of Roxas in 1948, Quirino, a political conservative and pro-American, drew support from the sugar barons for presidency. During his presidency, large-scale inequalities in the distribution of agricultural holdings provided a fertile breeding ground for the Huk rebellion (Merrill 1993, 137–159).

Quirino's first State of the Nation Address exhorted Filipino citizens to work toward total economic mobilization and attacking poverty (Quirino 1949). In his quest for the nation's economic self-sufficiency, the president devised measures to increase the

6) US Public Health Report of the Philippines Public Health Rehabilitation: July 4, 1946 to June 30, 1950, Frank Waring Papers, Harry S. Truman Presidential Library.

7) By 1950 Huk leadership had been taken over by the Communists, who alleged that the Philippine government was a "puppet" in the hands of the US. See, for example, Neal Peterson *et al.*, *Foreign Relations of the United States, 1950, East Asia and the Pacific*, Vol. 6 (Washington, DC: Government Printing Office, 1976).

8) Paul Claussen *et al.*, *Foreign Relations of the United States, 1951, East Asia and the Pacific*, Vol. 6, Part 2 (Washington, DC: US Government Printing Office, 1977).

acreage under rice, particularly in Mindanao:

> We must turn our concentrated attention to the development of Mindanao. Something must be done without loss of time to convert that vast region into a real empire of wealth. I recommend a general program of road construction to encourage production and communication. The establishment of the planned hydro-electric and fertilizer plant in Maria Cristina Falls will give the proper agricultural and industrial incentives. Locust pest is hampering the agricultural development of Northern Mindanao and even as far as Bohol and Cebu. I also recommend that sufficient appropriation be set aside to eradicate this winged enemy to our increased production. (Quirino 1949)

The Philippine government's proposal of opening Mindanao for economic development converged with the Economic Cooperation Administration's (ECA) plan of containing the spread of the Huk rebellion to the island (Fifield 1951, 16).

Magsaysay—secretary of defense (1950–53) during Quirino's presidency—had won military victories against the Huks. He contested the 1953 presidential election on a Nacionalista Party ticket against the Liberal candidate Carlos Romulo. After assuming office in 1953, Magsaysay promised to ameliorate people's living conditions.

In his second State of the Nation Address, Magsaysay asserted that there was more to national security than simply maintaining territorial integrity and public order. As an independent nation, the Philippines had to assure its citizens freedom from disease, ignorance, and want (Magsaysay 1955). Magsaysay emphasized that the government could not do everything for the Filipinos and that people had to help themselves (Magsaysay 1956). To this effect, the Magsaysay administration reoriented health, education, and welfare programs with an emphasis on self-help.[9] Magsaysay's concern with the "common man" was the logical first step in imbuing the Filipino way of life with the substance of democracy. In the pursuit of democratic ideals, he urged Filipinos to work ground-up—from factories, barrios (rural areas), and towns (Magsaysay 1956). For the fulfillment of Filipinos' basic needs, he identified the following requirements: (a) self-sufficiency in food (rice); (b) a strong administrative apparatus for the implementation of community development; (c) industrialization based on the utilization of locally available resources; (d) reorientation of the education system with an emphasis on science; and (e) scientific research (see Fig. 2).

Magsaysay exhorted that education reforms in the Philippines be oriented toward general, scientific, and vocational education. He expressed concern that diminishing interest in natural and physical sciences ran contrary to the rapidly developing requirements of the atomic age (Magsaysay 1955). At the heart of Magsaysay's concern was

9) The notion of self-help was evolved by the Magsaysay administration to attack the root causes of rural poverty by stimulating community initiative and responsibility.

Fig. 2 Community Development through Self-Help (c. 1957)
Source: Series: Propaganda Posters Distributed in Asia, Latin America and the Middle East, 1900–2003, Record Group 306: Records of the US Information Agency (1900–2003); US National Archives and Records Administration (NARA) Identifier 6949000.

how to refashion science such that it was at once open to international collaboration and relevant to national priorities. To this end, he created a Science Advisory Committee in 1955 composed of representatives from universities and research organizations. The committee did not explicitly mention medicine in its agenda.

Magsaysay's vision of using public health as a pathway for economic development was congruent with the US objective of subverting Communism in newly independent countries. In 1955 US President Dwight Eisenhower pointed out that a strong program of international aid was urgent in order to prevent newly independent countries of Asia and Africa from deflecting to the Communist camp.[10] To this end, the Eisenhower administration appropriated US$700 million to target toward technical and economic assistance to underdeveloped nations, particularly in the form of malaria eradication.[11]

10) Draft of Eisenhower's Speech, 1955, File White House Correspondence: General Files, John Foster Dulles Papers, Box 5, Dwight Eisenhower Presidential Library.
11) Draft of Eisenhower's Speech, 1955, File White House Correspondence: General Files, John Foster Dulles Papers, Box 5, Dwight Eisenhower Presidential Library.

Eisenhower observed that by 1954, malaria had attacked 200 million people and killed over two million and that the US had formulated a blueprint in cooperation with the World Health Organization to wipe out malaria globally. Eisenhower contended that malaria eradication was congruent with the American national interest of opening up new markets in underdeveloped countries. In the fiscal year 1954, the ECA loaned US$22 million to the Philippines to augment food production and ameliorate public health conditions in rural areas, especially to eradicate malaria.[12] The apparent speed with which malaria could be brought under control using DDT made malaria control attractive for US planners, who saw the elimination of the disease as an instrument for winning "hearts and minds" in the war against Communist expansion (Packard 1997, 283).

By 1954 the Magsaysay administration had enacted the Rural Health Act, which provided for the establishment of rural health units for every municipal district. The Act instituted health officers for municipalities. The power of municipal health officers was centralized with the provincial health officers (Ford and Cruz 1957, 687–696). At the time, isolated disease eradication programs related to malaria, tuberculosis, and venereal diseases were implemented on a piecemeal basis. The district health officers had limited authority to implement health programs within their jurisdiction. Most activities of the rural health units were concentrated at the level of the *poblacion* (district headquarters), leaving outlying barrios underserved (Neelakantan 2015a). At the time, the major stumbling blocks to Philippine development were administrative and political.[13] Governmental functions were dispersed among an excessive number of departments, which resulted in diffusion of responsibility and led to procedural delays in the implementation of public health programs.

Despite the administration's legislative measures—such as the enactment of the Rural Health Act—that reaffirmed Magsaysay's commitment to ensuring freedom from disease, the implementation of public health measures was contingent on the availability of American aid. The Eisenhower administration wanted Magsaysay to mount vigorous attacks on the Philippines' socioeconomic problems and to become a symbol in the war against Communism (Cullather 1993, 332). But these hopes were not fulfilled. Within months of Magsaysay's inauguration, the ruling Nacionalista Party coalition fragmented. Growing Filipino resentment against the US military bases in the Philippines threatened bilateral relations.

12) Policy toward Philippines, File NSC 5413/1, NSC Series: Policy Papers Subseries, White House Office of Special Assistant: NSC Records, 1952 to 1961, Box 10, Dwight Eisenhower Presidential Library.

13) Donald Stone, Common Administrative Obstacles to Development, Dated January to April 1961, Dennis Fitzgerald Papers, Box 5, Dwight Eisenhower Presidential Library.

In a confidential letter to then US Secretary of State John Foster Dulles, Magsaysay expressed concern that the Philippines did not have the means to fully implement the rural development program.[14] He requested US$10 million from the Eisenhower administration to implement the program and prevent disillusionment among the masses.[15] In requesting increased funding for the rural development program, Magsaysay emphasized the centrality of the Philippines to the success of the US anti-Communist propaganda in Asia.

The Philippines' strong cultural ties with the US placed the former's scientific research on a strong footing vis-à-vis other ex-colonial nations in a similar economic position (Varela 1954, 363). At the time, it was widely held within scientific circles that pure research undertaken in US laboratories could serve as a stepping-stone for applied research undertaken by Filipino scientists. The institutional foundations of Philippine science in the postwar period appeared to be jeopardized by the bureaucracy. The governments under Roxas and Quirino were disappointing in their budgetary allocation to research (Gutierrez 2018, 44–45).

The Philippine Bureau of Science, established in 1905, undertook research in tropical medicine, botany, zoology, entomology, and geology. The research activities of the bureau were disrupted due to the Pacific War (1942–45). In 1947, after Philippine independence, the Bureau of Science was renamed the Institute of Science. The institute carried out research in various branches of science and drew personnel from state universities.[16] It undertook quality control of vaccines produced locally at Alabang and established minimum standards for agricultural products. But research coordination was carried out by the National Research Council of the Philippines (Neelakantan 2019). The combined efforts of the National Research Council of the Philippines and the University of the Philippines resulted in the passage of Republic Act 1606 in August 1956, "An Act to Promote Scientific, Engineering and Technological Research, Invention and Development" (Valenzuela 1960, 515). This Act created the National Science Board, which provided financial incentives for a number of research projects, particularly pharmaceutical and pharmacological research on Philippine medicinal plants; nutrition surveys that assessed the nutritive value of Filipino foods; and biological research on antibiotics, tetanus toxoids, and human rabies (Valenzuela 1960, 515). Increased congressional interest in science during Carlos Garcia's presidency (1957–61) resulted in the creation of

14) Robert McMahon *et al.*, *Foreign Relations of the United States, 1955–1957, Southeast Asia*, Vol. 22 (Washington, DC: United States Government Printing Office, 1989).
15) Letter from President Magsaysay to US Secretary of State Dulles, March 15, 1956.
16) S. N. Dasgupta, Status of Research in the Philippines 1948 (I), UNESCO Report No. UNESCO NS/71, January 18, 1950.

a committee to revise Republic Act 1606 in order to mobilize private participation in research funding. The results of the congressional committee were spelled out in Republic Act 2067, a measure that was intended to integrate, coordinate, and intensify science and technology and foster innovation.

Republic Act 2067 paved the way for the Science Act of 1958. The Science Act established the National Science Development Board (NSDB) in place of the former National Science Board, although the changes were cosmetic. The NSDB supervised and partially funded the following projects: (1) the establishment of the Institute of Applied Research and Graduate Studies in Engineering in the UP; (2) scientific and industrial research under the jurisdiction of the National Institute of Science and Technology; (3) pharmaceutical and pharmacological research in the College of Pharmacy, UP; (4) the promotion of science consciousness under the leadership of the National Science Foundation of the Philippines; (5) agricultural research in the College of Agriculture, UP; and (6) nutrition research, undertaken by the Food and Nutrition Center, UP College of Medicine (Valenzuela 1960, 516–517). The Philippine Atomic Energy Commission's radioactive iodine studies on treating various thyroid disorders attracted the attention of the International Atomic Energy Commission (Valenzuela 1960, 520).

The scientific landscape of the Philippines during the 1950s and 1960s could be characterized in terms of symbolic projects that signified the nation was increasing its visibility and respectability within the international community. An editorial in the *Manila Times* on November 4, 1963 proclaimed that the egg-shaped dome of the new atomic reactor, the PRR-1—built with US assistance under the Atoms for Peace program—symbolized the Philippines' desire to keep pace with development along Western lines.[17] The public hoped that the atomic reactor would serve as a training ground for local scientists, inspire a new generation to take up science, and halt the emigration of scientists overseas. During the 1960s and 1970s, the PRR-1 became the nucleus for research in the Philippines on radioisotope production, neutron spectrometry, and reactor physics before it was mothballed in 1988 due to technical reasons (Guillermo 2012).

Postcolonial science in the Philippines was largely statist in its orientation. The Philippine private sector's need for research was less urgent than the adaptation of already available technology from abroad, especially in the textile, flour milling, steel, and pharmaceutical sectors. Philippine private industries' gross expenditure on research and development accounted for a mere 0.04 percent of the gross national income (Ramirez 1962, 465). At the time, research was influenced by government priorities in national

17) Letter from C. H. G. Oldham to R. H. Nolte, Science in the Philippines: Problems and Opinions, January 6, 1964, Doc CHGO-22, Institute of Current World Affairs.

development such that when an area of science happened to be defined as relevant to national priorities, funding from the NSDB would be assured. Between 1958 and 1966, applied research attracted almost 90 percent of all research funding, whereas basic research did not receive more than 10 percent of available resources (Ramirez 1962, 465). Consequently, Philippine scientists had to work independently to obtain grants from the US.

Low salaries and lack of prestige accorded to scientists dissuaded Filipino students from pursuing a research career. For instance, Ralph Blanco, a former instructor of mathematics at De La Salle University, worked out a hypothesis on the symmetry of energy and matter (Marasigan 1955, 85). His hypothesis could be verified by bringing together electrons and positrons and producing gamma rays. But to verify the hypothesis, Blanco needed a Bevatron (particle accelerator). As Bevatrons were expensive, Blanco abandoned his field of research and instead joined the civilian defense forces. Blanco's inability to continue his research is illustrative of the neglect of mathematics and physics in Philippine science, given their perceived inability to address the country's developmental needs in contrast to agricultural or medical sciences. The underlining features of the Philippine research landscape of the 1950s included an excessive emphasis on teaching rather than research and the absorption of most productive scientists into administrative positions.

Amador Muriel, a former physics instructor from the UP, recounted that until 1956 the university did not have a single doctoral physicist. Between 1959 and 1967, of the 12 Filipino students who had left for the US to earn a doctoral degree in physics, only one returned home (Muriel 1970, 38–39). Similarly, of the 13,829 foreign-born physicians in the US in 1966, 25 percent were Filipinos (Van der Kroef 1968, 243). The lack of local facilities for proper training of professionals and the lack of incentives to stay in the Philippines were two factors responsible for the brain drain of Filipino professionals overseas.

Euro-American Empire, Scientific Nationalism, and the Cold War: The Bataan Rice Enrichment Project, 1946–49

In 1946 beriberi was the second leading cause of death in the Philippines, after tuberculosis. Between 1947 and 1949, a province-wide feeding experiment was undertaken in Bataan, as a collaborative venture between the American chemist Robert R. Williams, who synthesized thiamine, and Juan Salcedo, the Philippine secretary of health between 1950 and 1953. The experiment revealed that polished white rice enriched with thiamine

reduced the incidence of beriberi in vulnerable populations. Yet, by willfully exposing 50 percent of Bataan's population to polished rice—and, consequently, beriberi—Williams recreated the prisons and asylums that European and American researchers had used to induce beriberi in unwilling research subjects in colonial Philippines prior to World War II (Ventura 2020). The attainment of Philippine political independence in 1946 was concomitant with the onset of the Cold War, marked by political, ideological, and military rivalry between the US and the USSR. The US—in its attempts to stem the appeal of the Soviet planned economy and land reforms—designed technical solutions to hunger such as rice enrichment. Such technical fixes medicalized food scarcity.

A deep historical contextualization of the Bataan Rice Enrichment Project reveals that Euro-American biomedical practitioners discovered beriberi in carceral laboratories in colonial Philippines that included prisons, plantations, barracks, and leprosy colonies (Ventura 2020, 294). Unlike Williams, who narrowly associated beriberi with thiamine deficiency, Filipino physicians prior to World War II, particularly Manuel Zamora and Primo Arambulo, encountered beriberi as a problem of infant mortality and maternal health. These physicians introduced *tiki-tiki* (a thiamine-rich rice bran supplement) that could be produced at low cost (McElhinny 2009; Ventura 2020). Arambulo equated *tiki-tiki* with national self-sufficiency. Salcedo did not reject rice enrichment in favor of *tiki-tiki*, as the latter was associated with a children's supplement during the late colonial period (Ventura 2020, 305). Post-World War II nutritional enrichment programs were meant to supplement adult diets.

The nutrition policy in postcolonial Philippines bore the imprint of Salcedo. He began his career between 1929 and 1936 at the UP as an instructor of physiology. In 1943, during the Pacific War, he took graduate courses at Columbia University. There he met Williams, who had synthesized vitamin B1 in 1935. Together, Salcedo and Williams worked out a plan to attack beriberi in the Philippines in 1943 (Baldwin 1975, 11). The plan became feasible after the defeat of Japan in 1945. In 1946 Hoffman-La Roche pioneered the rice enrichment premix consisting of thiamine, niacin, and iron that was subsequently used in the Bataan rice enrichment experiment, beginning in 1947. At the time, Salcedo was director of field operations of USPHS and was the founding father of the Philippine Association of Nutrition, a nongovernmental institution that agitated for the creation of a state entity dedicated solely to the problem of nutrition. In 1948 the Roxas administration appointed Salcedo as the chairperson of the state-created Institute of Nutrition (see Fig. 3).

The Bataan experiment was made possible due to a grant from the Williams-Waterman Fund for the Combat of Dietary Diseases to the Philippine Department of Health. Seven municipalities on the east coast of the province with a population of 63,508 constituted

Fig. 3 Juan Salcedo, Health Secretary of the Philippines (1950–53) and Chairperson of the NSDB (1962–65, 1966–70)
Source: With permission from the Nutrition Foundation of the Philippines.

the experimental area, whereas the remainder of the province—which included five municipalities with a population of 29,393—constituted the control area (Salcedo *et al.* 1950, 503). People from the experimental area consumed artificially enriched polished rice over the two-year period of the study, leading to a cataclysmic fall in mortality to near zero levels by 1949. The ratio of persons who displayed symptoms of beriberi dropped from 12.76 percent in 1947 to 1.55 percent in 1949 (Salcedo 1962, 573). In contrast, the death rate due to beriberi remained unchanged in the control area. By denying enriched rice to the control area, the Bataan experiment unknowingly exposed research participants to the risk of beriberi (Ventura 2020, 294).

In 1951 Salcedo extended the practice of rice enrichment to the provinces of North Luzon, particularly Tarlac, Nueva Ecija, and Pangasinan, the rice bowl of the Philippines. Retail prices of rice increased by 1 percent as a consequence of rice enrichment costs borne by millers (National Research Council 1958, 9). Local ordinances were enacted that forbade the sale of unenriched rice, but these were poorly enforced. In August 1952, as health secretary (1950–53) under the Quirino administration, Salcedo spearheaded the enactment of National Rice Enrichment Act 832, which made rice enrichment mandatory.

First, rice millers protested against the legislation as millers who did not comply with the national law had a 1 percent cost advantage over the complying ones (National Research Council 1958, 9). Second, due to an extant legislation in the Philippines, rice millers and other producers were obligated to pay a 2 percent tax on the value of their output. Of the 8,000 rice millers in the Philippines during the early 1950s, 7,000 were very small millers who did not maintain account books. As a result, nearly 90 percent of rice millers did not pay tax. But with the introduction of the Act, traders were apprehen-

sive that with the Department of Health's supervision of the distribution of premix—which included thiamine used in rice enrichment—the government could readily calculate the tax evaded by the millers (National Research Council 1958, 9). Provincial millers formed a union to resist the Enrichment Act.

The chief factor slowing the expansion of rice enrichment in the Philippines was the underlying concern among Filipino state officials outside the Department of Health that the thiamine premix was possibly monopolized by Hoffman-La Roche. Williams's role as patent holder for synthetic thiamine raised considerable suspicion in the Philippines that he was motivated by profit (Williams 1961, 171; Ventura 2020, 306).

The Food and Agriculture Organization (FAO) critiqued the findings of the Bataan study and the National Rice Enrichment Act in 1956. In its critique, the FAO noted that rice enrichment was introduced to Japan in 1950 (Mercado 1956, 1–10). The Japanese method of rice enrichment consisted of enlisting the support of housewives, who would voluntarily add thiamine to rice; this was in contrast to the Philippines, which mandated rice enrichment by the mills through state legislation. The FAO findings revealed that in contrast to Japan, the Philippines did not emphasize nutrition education, a critical pillar in ensuring the successful implementation of the National Rice Enrichment Act.

In his biography, Salcedo reminisces that Magsaysay assured him of presidential support for rice enrichment (Williams 1985, 52). But in reality, Magsaysay did not do so. In his address to millers in 1955, Magsaysay promised to seek the repeal of the Rice Enrichment Act (Williams 1985, 52). Salcedo was disappointed, as the law had not been implemented on a significant scale. A few days before his death on March 15, 1957, Magsaysay had planned to organize a national conference to identify organizational bottlenecks that impeded the implementation of the rice enrichment program (Editorial 1958). His successor, Garcia, created a committee to study the means to implement the Rice Enrichment Act. But the committee was unable to complete its task, and its activities were postponed due to the influential rice millers' lobby.

The Garcia administration attempted to implement the Rice Enrichment Act through the Office of Nutrition in order to coordinate those working on nutrition-related issues at the regional or provincial level (Valencia 1960, 46–49). The Institute of Nutrition—which had been under the jurisdiction of the Ministry of Health during the Roxas and Quirino presidencies—used to provide consultation to the government on nutrition-related matters. A rider in the budget prevented the Institute of Nutrition from releasing any of its funds for activities related to implementation of the National Rice Enrichment Act (Mercado 1956, 1–10). The implementation of the Act faltered due to organizational bottlenecks.

Instead of investigating the cause of beriberi, the Bataan Rice Enrichment Project

sought to demonstrate to the Filipino government and citizens the benefits of fortifying polished rice with thiamine. Although rice enrichment raised post-World War II hopes of worldwide eradication of nutritional diseases through UN agencies such as the FAO, enrichment also medicalized food scarcities attributed to socioeconomic inequalities. Williams was deeply embittered by his inability to turn the Bataan project into an international model for rice enrichment. He attributed the FAO's rejection of the results of the Bataan project to "hostility to Americans on the part of Europeans or hostility to Filipinos on the part of other Asians" (Williams 1961, 202). As US technical assistance became tethered to Cold War objectives, the Philippines became less free to reject US aid agreements which mandated that US companies supply commodities necessary for technocratic projects (Ventura 2020, 309). While beriberi's decline in Manila might have apparently contributed to declining interest in rice enrichment, endemic hunger in rural areas of the Philippines—particularly in Mindanao in 1960—might have provided an impetus to the discovery of miracle rice at the IRRI in 1966.

All in a Grain of Rice: The Cold War Origins of the International Rice Research Institute

The prevailing political and intellectual climate in the US between 1945 and 1955 was shaped by the Cold War, a part of which included the Population-National Security Theory. This theory purported to causally link overpopulation, resource exhaustion, hunger, political instability, appeal to Communism, and danger to US national interests (Perkins 1998, 119–121). According to this theory, world hunger was a cause of resource extraction and further political instability. Plant breeding could be seen as a panacea for hunger because science could increase and stabilize yields. The apolitical nature of science in solving tractable problems related to food and population growth was instrumental in bringing together the Rockefeller and Ford Foundations in the establishment of the IRRI.

In 1950 US President Harry Truman appointed Nelson Rockefeller as the chairperson of the International Development Advisory Board to expand the Point Four Program, intended to assist people of underdeveloped nations to increase their living standards. In 1951 Rockefeller published his report in *Foreign Affairs*. The report indicated that the security and prosperity of the US and industrialized nations could be maintained only if there was complementary progress of economically backward regions (Rockefeller 1951, 530). Rockefeller noted that the first priority of US foreign policy was to raise food production in underdeveloped nations by 25 percent, followed by the

development and export of raw materials from those countries to the US and Europe, and to render technical assistance. He warned that any reckless handling of US technical assistance to underdeveloped countries would disrupt supplies of raw materials to the US as a result of the former countries being thrown into the close economic orbit of the USSR (Rockefeller 1951, 528). The report was illustrative of a dominant view in US political circles that saw the food problem in newly independent nations in relation to political and economic problems. In 1951—as Rockefeller was advising Truman on the implementation of the Point Four Program—his foundation was creating a new research and funding division to define the world food problem and its solutions (Anderson 1991, 62).

In 1950–51 the Rockefeller Foundation contemplated establishing a major agricultural science division which could draw on the foundation's experiences in the Southern US, China, and Mexico. At the time, P. L. Mapa, secretary of agricultural and natural resources of the Philippines, in an informal correspondence with John D. Rockefeller III cited the achievements of the Mexican program of the foundation, which had raised people's living standards (Anderson 1991, 67). In the view of Philippine agricultural scientists, increased production of rice and corn would contribute to the creation of economic stability—but the varieties of seeds available at the time did not yield as much as those planted in other countries. Mapa advocated raising people's living standards in the Philippines, as the country was a good example of democracy in Asia and it was crucial for democracies to achieve economic stability (Anderson 1991, 71). The Rockefeller Foundation conceded that there was a special problem in the Philippines with respect to the correlation between the prevalence of hunger and the appeal of Communist ideology. The identification of health and agriculture as objects of attention of the Rockefeller Foundation occurred in conjunction with a belief in the universal application of science and technology (Anderson 1991, 63). Foundation officials referred to "tractable" problems, meaning those that would yield to the application of science and technology. Work on tractable problems helped the foundation in dealing with governments as these problems seemed free of political entanglements during the Cold War.

Ex-CIA official John Kerry King, in his 1953 article in *Foreign Affairs*, noted that in Cold War Asia—caught between two opposing ideological blocs—the supply of rice had major political implications. The major challenge in the struggle to keep South and Southeast Asia free of Communist domination was raising people's living standards. In 1952, Communist China emerged as a net exporter of rice after several years of scarcity. China used rice in its propaganda to reinforce the productive superiority of the Communist system. At the time, a need was felt within US foreign policy circles to convince South and Southeast Asian nations that increased production and a higher standard of

living were possible in their own countries without resort to totalitarian methods. King asserted that "the struggle of the East versus the West in Asia is, in part, a race for production and rice is the symbol and substance of it" (King 1953, 453–460). King's statement was significant as it placed rice in the context of regional security and US relations with non-Communist Asia.

The establishment of the IRRI was the result of a joint venture between the Rockefeller Foundation, Ford Foundation, UP College of Agriculture at Los Baños, and Cornell University. The Ford Foundation funded the IRRI after its earlier investment in community development programs in India amounting to US$100 million (1951–53) failed to generate dramatic results (Anderson 1991, 81). The community development program was undertaken for geopolitical reasons. The foundation feared that a rapidly expanding population relative to food supplies in Southeast Asia would result in newly independent countries of the region falling into the Communist camp (Chandler 1992, 6). Disruptions in India's Second Five-Year Plan around 1960–61, caused by declining agricultural yields, shifted the focus of American aid programs in the country from containing peasant unrest to increasing agricultural yields. The Central Intelligence Agency urged the Ford Foundation to take immediate action to avert a food crisis in Asia (Cullather 2010, 162). The new director of the Ford Foundation, Henry Heald, hired the Cornell agronomist Forrest Hill to reorganize the foundation's international development program. Hill had visited the corn and wheat research stations of the Rockefeller Foundation in Mexico and pushed to bring the Mexican model to the rice fields of Asia. In 1955, the Rockefeller Foundation enlisted the services of the Cornell agronomist Richard Bradfield. As the newly appointed assistant director of the Rockefeller Foundation in 1955, Robert Chandler accompanied Bradfield to identify requirements of agricultural colleges in the Philippines, Japan, Burma, Taiwan, Thailand, Indonesia, India, and Pakistan and awarded grants for fellowships and specific research projects (Chandler 1992, 4). This was the beginning of the Rockefeller Foundation's action program for agriculture in Asia.

The Ford and Rockefeller Foundations promoted project-oriented research—a US answer to totalitarian Soviet science—in the shadow of the Sputnik (Cullather 2010, 162). Given the Ford Foundation had an endowment four times larger than the Rockefeller Foundation and the latter's experience in staffing international programs since 1913, the two foundations cemented collaboration by 1958. In January 1959, Bradfield—while in Asia for the Rockefeller Foundation—stopped in the Philippines to explore the proposal of setting up a rice institute. He noted that L. B. Uichano, then dean of the UP College of Agriculture at Los Baños, expressed enthusiasm for the establishment of such an institute (Chandler 1992, 8). Between June and September 1959, the Ford and Rockefeller

Foundations reached an agreement for the establishment of the IRRI.[18)]

Three factors influenced the collaboration between Cornell and the UP College of Agriculture at Los Baños. First, Cornell had some involvement with the Philippines dating back to the colonial period. Several students from the College of Agriculture had been trained in Cornell. Second, the College of Agriculture was devastated during World War II and was consequently isolated from international developments in agriculture. Third, the ECA became directly involved with the College of Agriculture in what was then known as the Los Baños Technical Assistance Project. Cornell became involved soon after. With the strengths of Cornell—known for its extensive research program in all branches of agriculture—and the needs of the college at Los Baños in mind, a contract was signed on July 1, 1952 that introduced the land-grant concept of university service, as adapted to the Philippine context. The land-grant concept emphasized experimentation toward finding solutions to common problems that beset Philippine agriculture (Turk 1974, 30).

Between 1955 and 1960, the UP College of Agriculture had already established a niche for itself in training undergraduate students from Southeast Asia, particularly Indonesia. At the time, the Faculty of Agriculture (affiliated with Universitas Indonesia) was in dire need of research staff.[19)] As a way out of the situation, Sukotjo, director of the Agricultural Experiment Station at Bogor, approached the Rockefeller Foundation with a proposal to train Indonesian undergraduate students overseas. The foundation brokered an agreement with Indonesian and Filipino officials for training Indonesian undergraduates from the College of Agriculture, Bogor, at Los Baños and pledged US$120,000.[20)] By 1957, the first cohort of 12 Indonesian students from the College of Agriculture at Bogor arrived in Los Baños for training, some of them funded by the International Cooperation Administration (ICA) of the US government.[21)] The Rockefeller–ICA joint initiative to train Indonesian agricultural science undergraduates in the Philippines was intended to deepen friendship among Asian nations.[22)] The most significant episode for the UP College of Agriculture at Los Baños was the founding of the IRRI.

18) The Ford Foundation had allotted US$250,000 for land purchases and architectural fees, whereas the Rockefeller Foundation had advanced US$165,000 to meet the operational costs for 1960 (see Turk 1974, 187).

19) University of the Philippines: College of Agriculture, Indonesia Scholarships, Record Group (RG) 1.2, Finding Aid (FA) 387A, Series 242 D, Box 12, File 98, Rockefeller Archive Center (RAC).

20) Letter from J. C. Harrar, Rockefeller Foundation, to Dr. Vidal Tan, President of UP, November 9, 1955, FA 387A, RG 1.2, Series 242 D, Box 12, File 98, RAC.

21) Correspondence between Robert Chandler and George Trduerger, May 13, 1957, FA 387A, RG 1.2, Series 242 D, Box 12, File 99, RAC.

22) Correspondence between Robert Chandler and George Trduerger, May 13, 1957.

In 1960, the island of Luzon was viewed as the most logical choice for the establishment of the IRRI (Chandler 1992, 188). The Philippines was a rice-producing country where demand for the crop far outstripped supply. Average production figures were low, and there was a dearth of indigenous agricultural research.[23] Los Baños had been a pilgrim destination since pre-Christian times. The IRRI's proximity to Mount Makiling—a sacred site since pre-Christian times—cast a spiritual aura on the institute that the discovery of miracle rice only confirmed (Cullather 2004, 237). Chandler never explicitly invoked Makiling's legends, but an imprint of these legends may be echoed in the vernacular names the Filipino press attached to the IRRI's first varieties, for example, IR8 or "miracle rice."

The Rockefeller Foundation selected the world-renowned modernist architect Ralph Walker to design the IRRI buildings. Constructed completely out of imported materials, the sprawling one-story aluminum-and-glass structures featured modular walls to encourage an egalitarian office culture (Cullather 2010, 163). Facing the IRRI laboratory building was an experimental farm that replicated climatic conditions across Asia (see Fig. 4).

Given the historical context that led to the establishment of the IRRI, what was the focus of the institute? The focus included: (a) developing well-adapted high-yielding varieties of rice suited to tropical climates; (b) genetic study of mutation; (c) research on the physiology of growth, nutrition, and reproduction of rice; (d) studies on the physical composition, soil chemistry, and microbiology of paddy soils; and (e) observing the effects of water and temperature on plant growth. Chandler and his team collected 10,000 varieties of rice worldwide, recorded the characteristic features of each strain, and placed the varieties in cold storage for future use by scientists.[24] During the early years (1960–64), research scientists affiliated with the IRRI undertook investigations on tropical varieties of rice which were unreasonably tall and leafy and susceptible to lodging (when plant stems are weak to the point that they can no longer support the grain, causing the plant to fall over). Tropical varieties were susceptible to rice stem borer attacks that reduced yields. Scientists at the institute attempted to identify rice strains resistant to borer attacks and use these strains in developing new high-yielding hybrid varieties.[25] The IRRI maintained a program to evaluate the efficacy of insecticides used against stem borers.

23) NSDB Role in Science Progress in the Philippines, University of the Philippines [Undated], FA 387 A, RG 1.2, Series 242, Box 1, File 1, RAC.

24) IRRI: Brief Description of Training Program, November 2, 1962, FA 388, RG 1.3, Subseries 242 D, Box 17, File 168, RAC.

25) IRRI, Proposal to the US Agency for International Development [Undated], FA 388, RG 1.3, Series 242 D, Box 17, Folder 171, RAC.

Fig. 4 The IRRI Building in the Distant Background (1963). Scientists and trainees were expected to wade through the slush of the experimental farm. During the early years of the IRRI, before power tillers were developed, carabaos were used to prepare the experimental plots.
Source: IRRI Archives.

During the 1960s, the IRRI established a regional research program and convened periodic conferences that focused on problems of international economic importance, including one that focused on rice blast disease, a leading cause of global food insecurity.[26] Senior scientists from the institute trained agricultural educators from Thailand, Pakistan, and Indonesia.

Under the vision of Jacob George Harrar, who became president of the Rockefeller Foundation in 1961, the IRRI devoted its attention to developing high-yielding varieties of rice suitable for tropical climates. Southeast Asia in general suffered a serious deficit in rice production. The Asian farmer had a "rice complex" that was comparable to the "cotton complex" of the American South.[27] The rural population of Asia depended excessively on rice not only as a source of income but also as the main source of food. The IRRI sought to discourage the excessive dependence on rice by undertaking research

26) Draft of a Proposal to the Ford Foundation for Support of Certain Phases of the Training and Regional Program of the IRRI [Undated], FA 388, RG1.3, Series 242D, Box 17, File 164, RAC.

27) Letter from Norman Efferson, Louisiana State University Agricultural College, to the Rockefeller Foundation, August 27, 1963, FA 388, RG 1.3, Series 242 D, Box 17, File 171, RAC.

in leguminous crops such as mung, cowpeas, and soybean that could correct dietary deficiencies.[28)]

The first decade of the IRRI (1960–70) reflected the imprint of Chandler's ideas. The IRRI defined the global food problem in Malthusian terms. The task for the institute was to determine how global food production would increase to keep pace with the ever-rising population (Oasa and Jennings 1982, 39). Between the two alternatives of either increasing the yield per unit area or addressing inequities in rural society, IRRI scientists opted for the former. Chandler was concerned about low rice yields and slow adoption of agricultural techniques. His concern alluded to the reluctance of farmers to adopt technological advances. At the same time, he dismissed farmers' concerns about the costliness of technology as an "excuse" (Oasa and Jennings 1982, 39). In doing so, Chandler accepted inequality in rural society as a given. Research had to eliminate constraints imposed upon higher yields. From the inception of the IRRI, Chandler elected to avoid incremental agricultural improvements and instead go for the big jump strategy that emphasized technology as a catalyst to increase crop productivity (Cullather 2004, 239). Chandler wanted to take plant genetics to its frontiers to show the world that higher yields were possible (see Fig. 5).

Filipino agronomists critiqued the big jump strategy. Dioscoro Umali, dean of the College of Agriculture at UP, noted that high-yielding varieties of rice were contingent upon expensive inputs such as fertilizers and herbicides (Cullather 2004, 240). Shallow-rooted dwarf varieties of plants were dependent on precise hydraulic management that most farmers were unaware of. Farmers were forced to discard nearly all the traditional practices and adopt new techniques for planting, weeding, irrigation, harvesting, and threshing. New chemicals and irrigation would require access to credit networks that local farmers did not have. If adopted, high-yielding rice varieties would radically disrupt the social environment in which the crop was grown. Umali tried to rescue the straightforward objective of increasing rice production from the ballooning expectations that clustered around high-yielding varieties of the crop.

During the formative years of the IRRI (1960–70), crop yields did rise but slowly. The growth of agricultural production across Asia was marginal (less than 3 percent) and barely in line with population growth (Umali 1972). In organizing and institutionalizing the sharing of technology in rice production, the IRRI's role was limited to assembly and dissemination of knowledge but did not take into account the adaptation of a given technology to suit the needs of specific countries. Despite these shortcomings, the

28) The Improvement of Grain Legumes Production: Communication from the IRRI [Undated], FA 388, RG 1.3, Series 242 D, Box 17, File 170, RAC.

Fig. 5 Mechanized Paddy Threshers (1960s)
Source: IRRI Archives: Early Field Experiments and Machines.

achievements of the IRRI are significant. The institute placed increased emphasis on international scientific exchanges and cooperative research programs between the Philippines and other Southeast Asian nations. Within the IRRI, a logic different from the stereotype of the Asian farmer as traditional was meant to operate: scientifically ordered spaces within the institute would be populated with an interdisciplinary phalanx of scholars who would work on global issues such as food insecurity. During the 1950s and 1960s, Filipino scientists such as Umali pursued their careers within the confines of national science. But by the 1970s—with the IRRI's introduction of the Liaison Scientists Program—Umali officiated as the IRRI's liaison scientist in the People's Republic of China. He coordinated between international aid agencies such as the FAO—in his capacity as assistant director general and regional representative for Asia and the Far East—and the National Agricultural Research System of China in formulating a national rice production strategy.

"No Variety of Want Is More Individualized than Illness": The Philippine Medical Association, Socialized Medicine, and Anti-Communist Propaganda

During the early years of the Cold War (1946–47), the American Medical Association (AMA) used socialized medicine as a political weapon to disparage President Truman's proposal for compulsory national health insurance. The AMA suspected physicians who advocated universal health care of being Communists. At the time, opponents of national health insurance focused on maintaining the professional independence of doctors. Medicine became a blazing focal point in the fundamental struggle to determine whether the United States would become a free or a socialist state (Warner 2013, 1452–1453). The Philippine Medical Association (PMA) during its early years (1939–46) was an affiliate of the AMA.[29] Affiliation with the AMA conditioned PMA physicians to be skeptics of the state-centered approach to public health. During the 1950s, the PMA was faced with the dilemma of meeting the goals of the Philippines' rapidly expanding public health program without compromising on professional standards.

The year 1949 was significant for the working class in the Philippines as President Quirino recommended before Congress the passage of a legislation providing prepaid medical services to rural populations (Department of Health 2014, 3). At the time, a faction within the PMA expressed concern that Quirino's proposal would lead to the growth of socialized medicine, defined as the total mobilization of medical care under government control (Torres 1949, 249–255). Luis Torres, a PMA physician also affiliated with the Philippine Federation of Private Medical Practitioners, contended that socialized medicine claimed to provide a panacea to the public health problem through the taxation system. But for every peso spent on health care, the proposal to extend prepaid health care to the rural population would entail additional administrative expenditure, for example, 190,000 government employees for a population of 18 million people (Torres 1949, 249–255). One of the weaknesses of socialized medicine, according to Torres, was that it promised too much. The taxpayer made undue demands on doctors' time and disrupted the doctor-patient relationship. Furthermore, Torres noted that doctors would not be able to maintain confidentiality of patients' records under a system of socialized medicine, given insurance claims. He warned that socialized medicine sounded the death knell for

29) The Philippine Islands Medical Association, precursor of the PMA, was founded in 1903 as an affiliate of the AMA. By 1921, Filipino physicians had become members of the association. By 1932, private practitioners had splintered from the Philippine Islands Medical Association and founded the Philippine Federation of Private Medical Practitioners, although many members of the federation continued to hold membership of the former. In 1939, the Philippine Islands Medical Association was renamed the PMA to reflect its nationalist orientation.

democracy in the Philippines. But PMA members—particularly Rodolfo Gonzalez, the incoming PMA president (1950)—did not subscribe to Torres's views.

In 1950, Gonzalez noted that the Philippines suffered an acute shortage of hospital beds for poor patients, estimated at 8,500 for a population of 18 million people (Gonzalez 1950, 187–191). The government did not have enough funds to establish more hospitals, which in Gonzalez's view led to a vicious cycle. He argued that the less the state took care of the health of the masses, the more difficult it would be for people to engage in productive work, especially agriculture and industry. The less the productivity of the people, the lower would be the state income and the harder it would be for the government to carry out its social amelioration program. Gonzalez appealed to PMA members to help the government by maintaining "charity beds" in private hospitals. Gonzalez's views with respect to greater state intervention in public health were shared by then Health Secretary Salcedo (1950–53), who was also the president of the PMA between 1952 and 1953.

At the inaugural address of the First Southeast Asian Medical Conference in Manila on May 8, 1951, then incoming PMA President Eugenio Alonso criticized shortcomings of the Quirino administration's proposal to provide prepaid medical services to rural areas. He pointed out that no variety of want was more individualized than illness. The illness of a wage earner from tuberculosis or the failing health of children due to malnutrition was a problem that needed treatment of individual patients (Alonso 1951, 455). Alonso shed light on the contradiction that although 700 million pesos had been spent by the government on public health by 1951, 90 percent of patients did not see a doctor. He contended that medical inadequacies could be remedied through amelioration of people's living conditions. He questioned the feasibility of undertaking nutrition research in the Philippines, or educating people about the nutritive value of food, at a time when people did not have enough to eat. Given the lack of consensus within the PMA on the question of expanding rural health care, the association was faced with a dilemma. At the heart of the matter was how to hold the association together when there were so many private practitioners who were fearful of increased competition from the state. One way out of the dilemma was to benefit both private and government practitioners.

In 1951, as the president of the PMA, Alonso proposed major changes in the organization of health work, i.e., decentralization of health activities to rural areas (Stauffer 1966, 96). His underlying rationale was that with the decentralization of the government's health activities, government physicians would be sent to rural areas. In the process, the scope of state medicine would be expanded, a prospect he hoped would appease government physicians. Alonso hoped that private physicians would like the proposal to dispatch government physicians to more rural areas and free the cities and

towns for private practice. But neither of the two camps liked Alonso's proposal. Government physicians were reluctant to get transferred to remote areas, whereas private physicians were apprehensive of increasing state presence in public health (Stauffer 1966, 96).

In 1952 the Quirino administration, despite opposition from sections of the PMA, succeeded in passing Republic Act 747, "An Act to Regulate the Fees to Be Charged against Patients in Government Hospitals and Charity Clinics Classifying Patients According to Their Financial Condition" (Republic Act 747, 1952). The Act established a classification system for individuals who would be eligible for free treatment in government hospitals. A year later, the Quirino administration liberalized the classification system such that Filipino families with a monthly income of less than 100 pesos qualified as indigents and were eligible for free hospitalization (Stauffer 1966, 127). Nearly 90 percent of Filipinos qualified as indigents under the Act. Subsequent to the passage of Republic Act 747, there was a rapid construction boom of public hospitals. Many small hospitals, acquired through pork-barrel funds, could not be staffed by government doctors (Stauffer 1966, 128).

Public spending on health acquired a new lease of life during the Magsaysay era (1953–57). During his election campaign, Magsaysay made many promises for a better quality of life in the barrios and repeatedly reminded the PMA about expanding medical care to rural areas. He appealed to the association to abandon its "mercenary" zeal and instead return to its "missionary" zeal of service (Stauffer 1966, 123). In line with its preelection promises, the Magsaysay administration had to increase public spending on health and, in turn, increase taxation. Physicians united under the umbrella of the PMA to resist what they interpreted as "socialized medicine" and the deterioration of professional standards, given that a majority of physicians recruited to the Rural Health Units were political appointees (Editorial 1959). The PMA bargained for a subsidy to be provided to Filipino physicians who elected to set up practice in rural areas (Icasiano 1955, 230–233). The then president of the association, M. C. Icasiano, warned the Magsaysay government that medical services in rural areas should not be disbursed as a matter of charity but must be extended on the basis of self-help such that barrios could independently support private practitioners.

During the Garcia presidency (1957–61), Rodolfo Guiang—a private practitioner from Pangasinan and a member of the PMA—proposed an Indigency Plan that was intended to meet the increasing demand for medical care in the Philippines and free densely populated urban areas for private practice (Stauffer 1966, 96). The plan would screen the population to identify those who could be given free medical treatment due to their inability to pay. While working out details of the PMA Indigency Plan with the

Department of Health, private physicians realized that the Garcia administration was less cooperative than they had anticipated. The association subsequently began to use socialized medicine as a weapon to break the monopoly of state medicine in dealing with the indigent population of rural Philippines. In 1960, an editorial in the *Journal of the Philippine Medical Association* noted that "socialization of medicine" was one of the many insidious manifestations of the socialist-Communist monster that was a danger to Philippine democracy (Stauffer 1966, 129). Although the government gave assurances of cooperation with the Indigency Plan, it failed to support the plan financially. The association subsequently worked on the Indigency Plan as a voluntary project.

Until the early 1960s, socialized medicine was a recurring theme in the PMA annual meetings. In 1961, Diosdado Macapagal was elected president of the Philippines. He introduced a comprehensive Five-Year Integrated Plan for the country's socioeconomic development, proposing improvement of various public services, including the delivery of health care (Department of Health 2014, 104). In 1962, then Health Secretary Francisco Duque designed a plan that would extend medical services to the needy at no additional cost. The PMA labeled the proposed scheme "socialized medicine" that stifled physicians' individuality and removed incentives for professional advancement (Guiang 1962).

Between 1949 and 1962, the PMA focused on the type of medical care most suitable for the Philippines. In its early efforts to achieve satisfactory distribution of physicians across rural areas, the association advocated that government physicians be sent to rural areas while freeing urban areas for private practice. But the plan did not work, due to mutual distrust between private and government physicians. The association was successful in thwarting any plans for expanding the state's role in Philippine public health. First, it launched a propaganda campaign through journal articles and newspapers that enlightened the Filipino public regarding the importance of treating diseases at the individual level. Second, the association preyed on the public's worst fears regarding the loss of doctor-patient relationships and the erosion of professional standards associated with the expansion of public health services. At the same time, it tapped into the Philippine political leadership's fear of Communism and portrayed socialized medicine as a threat to the nation's democracy. In a rather demagogic manner, the association used socialized medicine to stifle any debate amongst physicians regarding nationalized health care.

Conclusion

This article does not chronicle the successes or failures of individual disease control programs as they were implemented in the Philippines. Rather, it seeks to understand

the niche that applied sciences, particularly nutrition, agriculture, and medicine, occupied with respect to national reconstruction in the aftermath of Philippine independence in 1946.

The lingering question as to whether Philippine science was a variant of postcolonial science more generally, or whether it was imbued with a distinctly national flavor, cannot be easily answered. It entails situating the "postcolonial" in Philippine science. Science was the raison d'être of the modern nation-state. In other words, the phenomenon called state building by modernization theorists was the identification of the state's projects as uniquely modern: state building crucially depended on the principles of science and technology (Abraham 1997). In the Philippine context, institutions such as the PRR-1 atomic reactor and IRRI belonged to the postcolonial space.

This article highlights three discerning features of postcolonial Philippine science. First, science was packaged as a comprehensive program of delivery intended to address the basic needs of people. Second, Philippine presidents understood science in terms of balancing national needs and nurturing the country's Cold War ambitions as the leader of the free world in Southeast Asia. But the Philippines' aspirations as leader of the free world in Southeast Asia were contingent on the availability of US technical assistance. For instance, the Bataan rice enrichment experiment failed to turn into an international model of rice enrichment due to other Asians' suspicion of Filipinos. As the Philippines was drawn into the US orbit during the Cold War, the Philippine government became less free to reject technical assistance agreements which mandated the involvement of private American corporations. Third, science in postcolonial Philippines was statist, i.e., conducted on behalf of the people but at the discretion of the state. The Philippines inherited colonial scientific bodies such as the Bureau of Science—which drew on the models of similar institutions extant in the US—although the emphasis during the 1950s shifted from basic to applied research.[30)]

Given the emphasis on packaging science as a comprehensive program of delivery, and the emphasis on applied over basic research, one may infer that Philippine science was a variant of postcolonial science in Southeast Asia and shared parallels with Nehruvian India and Soekarno-era Indonesia (Arnold 2013; Neelakantan 2015b). What distinguished postcolonial Philippine science from its Indian and Indonesian counterparts was its dovetailing with US objectives of subverting the spread of Communism in Southeast Asia. For instance, Magsaysay had to emphasize the geopolitical significance of the Philippines —as being in the frontline against Communism in Southeast Asia—while requesting US aid for malaria eradication during the 1950s. In contrast, India and Indonesia sought to

30) For a comparison with Indonesia, see Messer (1994) and Goss (2011).

achieve a delicate equilibrium between increased receptiveness to foreign aid and maintaining their respective political sovereignty (Arnold 2013, 361; Bu and Yip 2015, 6). A mobilization mentality suffused the practice of science in the Philippines during the 1950s such that the pursuit of knowledge led to new unresolved questions associated with the Cold War, such as socialized medicine—expanding health care access to the entire population—resulting in political deadlocks. These deadlocks, in addition to institutional bottlenecks that seemed almost insurmountable during the 1950s, have stymied the implementation of health legislation to the present.

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Local Politics in the Migration between Vietnam and Cambodia: Mobility in a Multiethnic Society in the Mekong Delta since 1975

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This paper examines the history of cross-border migration by (primarily) Khmer residents of Vietnam's Mekong Delta since 1975. Using a multiethnic village as an example case, it follows the changes in migratory patterns and control of cross-border migration by the Vietnamese state, from the collectivization era to the early Đổi Mới reforms and into the post-Cold War era. In so doing, it demonstrates that while negotiations between border crossers and the state around the social acceptance ("licit-ness") and illegality of cross-border migration were invisible during the 1980s and 1990s, they have come to the fore since the 2000s. Despite the border being legally closed in the 1980s and 1990s, undocumented migration as a livelihood strategy was rampant due to the porous nature of the border. In the 2000s, the border began to be officially opened to local people and simultaneously function as a political boundary to regulate belonging and identities. The changes in migratory patterns indicate that the mapping and establishment of a national border alone is not enough to etch it in the minds of people, especially minorities who have connections with people in the neighboring country. Rather, a border "hardens" through continuous negotiations between state actors, who become suspicious of influence from a foreign country, and cross-border migrants, who become dependent on the state for their needs.

Keywords: cross-border migration, licit-ness, illegality, collectivization era, post-Cold War era, Khmer, Vietnam, Cambodia

Introduction

This paper examines the history of cross-border migration by (primarily) Khmer residents of Vietnam's Mekong Delta since 1975. Using a multiethnic village in a coastal province of Vietnam as an example case, it follows the changes in migratory patterns and control of cross-border migration by the Vietnamese state, from the collectivization era

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(1975–86)[1] to the early Đổi Mới (renovation) reform era (1986–mid-1990s) and into the post-Cold War era (from the late 1990s). In so doing, it demonstrates that although migrants have crossed the border to take advantage of political and economic differences between Cambodia and Vietnam as a livelihood strategy for decades, the Vietnam-Cambodia border has begun to effectively function as a political boundary to regulate their belonging and identities only since the early 2000s. This regulation of cross-border migration is a result of a new political calculus on the part of (1) local residents, who have become dependent on the Vietnamese state for economic and religious needs, (2) local governments in the delta, which are suspicious of human and information flows from Cambodia, and (3) the Vietnamese state, which officially protects ethnic Khmer.

Ambiguities and the political instability of the boundary between Vietnam's Mekong Delta and Cambodia have abounded since before colonization. Nguyen Phuc Anh began to govern the delta at the end of the eighteenth century and eventually unified almost all provinces of today's Vietnam under a single state, officially declaring the foundation of the Nguyen Dynasty in 1802. The Nguyen Dynasty indirectly began to govern the Mekong Delta through local political leaders, but it lost control of many parts of the delta when Khmer rebellions against the centralization erupted in the 1830s (Kitagawa 2006, 182–183, 190, 221–222; Vũ Đức Liêm 2016, 89–91). As Vũ Đức Liêm observes, the Nguyen Dynasty attempted to demarcate boundaries (*giới*) by digging canals such as the Vinh Te canal, which is located not far from today's national border, and to translate those physical markers into cartography. It did not, however, differentiate provincial boundaries from the national border when managing the "Khmer world" (Vũ Đức Liêm 2016, 93), and in that sense it can be said that the modern national border did not emerge during the Nguyen Dynasty. In the late nineteenth century, the delta and Cambodia were integrated into a federation of states known as French Indochina.[2] Although the administrative line drawn between the two regions during the French era began to work as a national border in 1954, intensification of the Vietnam War during the 1960s, when several political forces collided,[3] brought disorder to the borderland (Chandler 2008, 242–249). Even during wartime, people created many open-air marketplaces along the border in areas uncontrolled by the states (Lê Hương 1970, 10), and people migrated from Southern Vietnam to Cambodia to seek a higher Buddhist education or livelihood.

1) The naming of the era is based on local naming practices; those in my field site call the era *thời tập đoàn* (collectivization era), rarely using the term *thời bao cấp* (rationing era), which is generally much better known.
2) On the migration between French Cochinchina (Southern Vietnam today) and the Protectorate of Cambodia by Khmer monks, see my paper in Japanese (Shimojo 2015).
3) These were the South Vietnamese and Cambodian governments, the United States, the National Liberation Front, and the Khmer Rouge.

However, as the Vietnam War expanded into Cambodia, notably in 1970—when the Norodom Sihanouk regime was overthrown in a coup by general Lon Nol, whose army units massacred hundreds of unarmed Vietnamese civilians near Phnom Penh on the dubious grounds that they were allied with the Communists (Chandler 2008, 251)—a large number of Vietnamese citizens in Cambodia returned to Vietnam.[4)]

Following the end of the Vietnam War in 1975, conflict between the unified Vietnamese government and the Khmer Rouge increased political tensions in the borderland. These tensions eased when Vietnam invaded Cambodia and established a pro-Vietnam government in Phnom Penh in 1979. Starting in 1975, the Vietnamese socialist economy stagnated, making it difficult for people to make a living. This, combined with the easing of border tensions, spurred people in the delta not only to flee Vietnam by sea as "boat people" but also to migrate overland to Cambodia and then to Thailand as refugees, laborers, or traders to access means of livelihood. Migration continued throughout the 1980s and increased in the early 1990s, when the economic boom in Phnom Penh under the governance of the United Nations offered promise in the face of the social dislocation and economic difficulty caused by Đổi Mới reforms and a new market-oriented economy in Vietnam.

According to Evan Gottesman (2003, 165–168), during the Vietnamese occupation of Cambodia, the Vietnamese military established checkpoints along the border; and anyone from Vietnam who attempted to flee to Thailand via Cambodia was detained, disciplined, and forced to return to Vietnam. Gottesman also notes, however, that cross-border smuggling may have been secretly permitted by both the Hanoi and Phnom Penh governments during the Vietnamese occupation of Cambodia. Indeed, we know that Cambodian timber and rubber were smuggled into Vietnam, and beer and Vietnamese electric generators were smuggled into Cambodia (Gottesman 2003, 311–314). Research conducted for this paper confirms that from 1979 through the 1990s local migrants crossed the border using informal routes to avoid checkpoints, suggesting that border control was ineffective and undocumented migration occurred during that time.

It is generally assumed that the decollectivization and market liberalization stimulated by Đổi Mới reforms in 1986 eased economic difficulties in Vietnam on the whole, though there were still many poor in rural areas, especially areas with high ethnic minority populations, and the gap between the rich and the poor tended to widen (see Vo Tri Thanh and Pham Hoang Ha 2004, 83–84). According to Philip Taylor (2004), the result of decollectivization and land liberalization policies was that increasing numbers of Mekong Delta farmers had to sell their land and thus had—and still have—less access

4) The official number of Vietnamese citizens in Cambodia decreased from 400,000 in 1969 to 210,000 in 1970 (VNCHBKHPTQG 1973, 387).

than ever to the profits from the delta's agricultural economy.[5] Taylor also mentions briefly that many farmers in the delta, especially Khmer people who missed out on many benefits of the liberal reforms, sought work in the urban centers of the delta, or in nearby cities such as Phnom Penh and Ho Chi Minh City (Taylor 2004, 237, 245, 252). Taking into consideration these arguments over Đổi Mới, this paper puts into focus the pattern of those who, failing to cope with the rapid penetration of the market economy, began to migrate to Cambodia in order to seek a livelihood.

Andrew Hardy observes, "at the heart of the Đổi Mới transition lay the process of land decollectivisation and it was this, above all, that undermined the state's control over population mobility" (Hardy 2003a, 124). While Hardy's (2003a; 2003b) research focuses mainly on the contemporary history of government-sponsored and spontaneous internal migration from the northern Red River Delta to Vietnam's highlands, Iwai, Ono, and Ota analyze migrations from the Red River Delta to the floodplain of the southern Mekong Delta since the Đổi Mới reforms (Iwai *et al.* 2016). This paper deals with cross-border migration between Southern Vietnam and Cambodia as an extension of such internal migrations.

Beginning in the late 1990s, Vietnam gradually returned to international society, accelerating its market economy. Subsequent economic growth during the 2000s witnessed an explosion of industries around Ho Chi Minh City, which began to absorb the rural population. Reflecting this pattern, some people who had moved to Cambodia returned to their home in Vietnam due to its improving social and economic situation. In tandem with this phenomenon, control of migrants crossing the Vietnam-Cambodia border intensified and became more firmly institutionalized from the 2000s, as the government became more suspicious of the human and information flows from Cambodia.

One notable exception to this pattern is the regulation of Khmer monks from Vietnam crossing the border to study in Cambodia. This movement has been strictly regulated since 1975, due to Vietnam's concern over those monks being influenced by the environment of anti-Vietnamese politics in Cambodia, as Taylor's ethnographic studies observe (Taylor 2014, 59; 2016, 282–285).[6] While Taylor's research stresses Khmer monks'

5) In Khanh Hau village, Long An Province in the Mekong Delta, where several Japanese scholars conducted intensive fieldwork in the late 1990s, the farmland shared by the agricultural collectivization was returned to the former owners by Đổi Mới reforms, resulting in large numbers of landless households. Among them, not only the original landless households but also some others became landless because the process of land inheritance between generations did not catch up with the rapid population growth over 40 years (Iwai 2001, 121).

6) When Buddhist and secular educational institutions were revived and restructured in the 1990s in Cambodia, many Khmer monks from Vietnam resumed undocumented travel to Cambodia for study, but the Vietnamese government attempted to restrict them from going (Taylor 2016).

migration to and from Cambodia, this paper focuses on the interaction between laypeople's migration and state control, whose pattern is different from that of the monks.

Timothy Gorman and Alice Beban (2016) reveal that contemporary migrant workers from Vietnam cross the Cambodian border as farmers to cultivate shrimp, and Sango Mahanty (2019) analyzes traders circulating between Vietnam and Cambodia to buy and transport cassava. According to these studies, in order to mitigate their legally unstable position or to facilitate the transnational trade of cash crops, these border crossers voluntarily attempt to establish ties with state actors, such as border guards, military personnel, or local authorities.

Some migrants circulating between both countries today survive by making use of the social insurance provided to the poor in Vietnam and the economic boom of Cambodia's borderlands. In so doing, they rely not only on the state's insurance programs but also on middlemen in their homeland to arrange official documents such as passports and ID cards.

By explaining the historical changes in cross-border migration trends, this paper betters our understanding of why migrants from Vietnam have come to depend more on state actors since the 2000s. The paper is structured as follows. The first section presents an overview of the migration between Vietnam and Cambodia while reviewing some literature on borders and migration. After explaining the field site of P. village in the second section, the paper details the patterns of undocumented migration during Vietnam's collectivization era (1975–86) in the third section, and during the early Đổi Mới reform era (1986–mid-1990s) in the fourth section. The fifth section discusses the circulation of migrants and Vietnamese regulation of the border and migrants in the post-Cold War era (from the late 1990s). In examining the changing migration trends and state regulations, this paper concludes that while interactions between border crossers and the state around the social acceptance (or "licit-ness") and illegality of cross-border migration were invisible during the 1980s and 1990s (when undocumented migration was rampant despite the border being legally closed), they have come to the fore since the 2000s, when the border was institutionally opened to local people.

I Creation of a Border

In Southeast Asian historical studies, it is assumed that since the mapping and demarcation of modern national borders, the formation of the state and creation of nationhood have been actively pursued (Thongchai 1994). The border gradually emerges in people's imagination of a nation through migration control policies such as exclusion or greater

scrutiny (Osada 2011). Given this "hardening" of borders, some studies focus on how migrants strategically take advantage of social and economic differences on either side of the border, engaging in sophisticated cross-border smuggling using various, often corrupt, networks (Tagliacozzo 2005; Ishikawa 2010).

Itty Abraham and Willem van Schendel (2005) refer to the borderland as both a "licit" and an illegal space. They define licit activities not as permissible by law, but rather in contrast to the popular sense of "illicit" activities; in other words, licit activities are legally banned but socially sanctioned and protected. The borderland is a space formed by the intersection of multiple competing authorities and enforcements. Neighboring states often hold different views on both the law and licit-ness. As a result, what is considered licit, or what may be allowed on one side of the border, may be considered strictly illegal and not allowed on the other side. As people cross borders to work in sweatshops and brothels to avoid labor regulations or the vice police, strategic interactions or "border games" ensue between border enforcers and unauthorized border crossers (Abraham and Schendel 2005, 22–23).

In light of the border and migrant studies mentioned above, the case of P. village in Vietnam raises the question of how concretely migrants have etched the national border in their minds as a "boundary" to differentiate their own society from the society on the other side of the border. Many people in P. village migrated to Cambodia during the 1980s and 1990s to escape economic difficulty. This undocumented migration was not fully controlled by either of the two states, whose lax governments did not trace the mobility of border crossers after their initial border crossing or during long stays. This enabled the people in P. village to continue to recognize their own homeland and Cambodia as a mutually connected cultural and economic space, even after the establishment of the Vietnam-Cambodia border. Border crossing through informal routes was frequent at least until the 1990s, as border crossers relied on backstreets along the border, long-distance family or relative networks, personal experiences, and middlemen preparing land or sea transport. The cases from P. village demonstrate that the Vietnam-Cambodia border was not clearly "etched in the minds of people" as a boundary to regulate mobility or identities, and it did not strictly function as a political institution, as it was virtually porous and permeable until the late 1990s. Schendel (2005, 52) notes that the permeability of a border can differ along its length based on physical features, intensive policing of a particular section, cross-border agreements, and the varying degrees of physical or linguistic difference between borderlanders on either side. Due to a combination of these factors, the Vietnam-Cambodia border was very porous, and although not strictly legal, migration between the countries was habitual and licit, in that it was socially sanctioned among P. villagers and even overlooked and tolerated by the states.

However, the Vietnamese state has paid increasing attention to this undocumented migration and lack of border governance, especially since the early 2000s. Today the Vietnamese government pays particular attention to Khmer people crossing the border, due to the sensitivity of the territorial politics of the Mekong Delta, which in Cambodia is still called Lower Cambodia (Kampuchea Kr[a]om) and considered a territory taken by Vietnam. In the late 1970s, the Pol Pot regime raided the borderland on the Vietnam side with the aim of reclaiming the Mekong Delta (Chanda 1986, 96–98). However, the political presence of Khmer in the delta was temporarily forgotten when the pro-Vietnam government was installed in Phnom Penh after the Vietnamese invasion of Cambodia. Following Vietnam's withdrawal of troops from Cambodia, the Vietnamese government lacked the ability to prevent local residents from crossing the border, and serious political problems relating to the border, migrants, and Khmer ethnicity did not surface until the late 1990s. However, since the early 2000s, as people, goods, and information from Cambodia have continued to flow into Vietnam, the Vietnamese government has become concerned that if the Khmer people have more contact with Cambodian society, previous political issues might resurface. The regulation of migrants from P. village, many of whom identify as ethnic Khmer, is closely connected with Vietnam-Cambodia border governance. As explained below, only since the 2000s have interactions between unauthorized migrants and territorial states around the licit-ness and illegality of cross-border migrations started to make themselves visible. This has happened even in P. village, which is located quite far from the border.

II Methodology and Field Site

This paper is based on oral histories and ethnographic data collected in P. village (*xã*)[7] between December 2010 and March 2012. I lived and conducted fieldwork in the village for 15 months, collecting ethnographic data about society-state relations in everyday lives and oral histories of people's survival strategies to avoid subsistence crises during wartime, the collectivization era, the early Đổi Mới reform era, and the post-Cold War era. I also conducted several one- to two-week research trips in the borderlands of Cambodia and Vietnam, as well as Phnom Penh, to gather information related to migration trends.

P. village is located 150 km from the Cambodian border on the east bank of the Bassac River in Soc Trang, a coastal province in the Mekong Delta of Vietnam. Soc Trang

7) Although *xã* is often translated as "commune," this paper translates *xã* as village, because the people in P. village do not distinguish between the terms *làng* (natural village) and *xã* (the smallest administrative unit), treating both as the same.

Table 1 Populations of Vietnam, Mekong Delta, Soc Trang, and P. Village

Population of Vietnam (2009)	Population of Mekong Delta (2009)
Total: 85,846,997 (100%)	Total: 17,191,470 (100%)
Khmer: 1,260,640 (1.47%)	Khmer: 1,183,476 (6.88%)
Chinese: 823,071 (0.96%)	Chinese: 177,178 (1.03%)
Viet: 73,594,427 (85.73%)	Viet: 15,811,571 (91.97%)

Population of Soc Trang (2009)	Population of P. village (2011)
Total: 1,292,853 (100%)	Total: 14,649 (100%)
Khmer: 397,014 (30.71%)	Khmer: 11,622 (79%)
Chinese: 64,910 (5.02%)	Chinese: 258 (2%)
Viet: 830,508 (64.24%)	Viet: 2,769 (19%)

Sources: BCĐTĐTDSVNƠTƯ (2010, 146, 223); Công văn UBND Xã P, Bảng Tổng hợp toàn số, khẩu, 2011

is home to many ethnic Khmer who have remained connected with Cambodian society through their language and Theravada Buddhism even after national border demarcation in the mid-twentieth century. The ethnic Khmer have lived together and intermarried with ethnic Chinese and Viets (ethnic Kinh, the majority in Vietnam).[8)]

According to Vietnamese government statistics from 2009, ethnic Viets (Kinh) are the largest ethnic group in the Mekong Delta, accounting for about 92 percent of the population; ethnic Khmer account for around 7 percent and ethnic Chinese just 1 percent (see Table 1). Within the delta, Soc Trang is ethnically diverse, with 64 percent of the population ethnic Viet, 31 percent Khmer, and 5 percent Chinese. The province is also recognized as having the largest Khmer population in Vietnam and the largest Chinese population in the delta. Within Soc Trang Province, P. village has a higher percentage of Khmer residents. Government statistics from 2011 show that 79 percent of P. village is ethnic Khmer, followed by ethnic Viet (19 percent) and ethnic Chinese (2 percent).[9)] In my survey, according to the ethnicity registered with the government, of the 395 people living in "Samrong ward (*khu*),"[10)] Q. hamlet (*ấp*), P. village, 390 were ethnic Khmer, 3 were Viet, and 2 were Chinese. However, 170 of the 390 people registered as

8) The people in P. village use the term "Viet" rather than "Kinh." Based on the local context, I use "Viet" in this paper.

9) Công văn UBND Xã P, Bảng Tổng hợp toàn số, khẩu, 2011.

10) Samrong ward, which is located in Q. hamlet (*ấp*) of P. village, is the focus of this study. Although it is not an official place name, in my fieldwork I used this name for convenience of explanation. Q. hamlet is officially separated into three wards. Samrong ward encompasses most of ward 2 and part of ward 3. At the time of my household survey (December 2011–January 2012), Samrong ward had 663 residents (713 including people traveling to work outside of the ward). I lived in an area known in the Khmer language as "*Phno* (dunes) located on the fringe of the Samrong trees." Thus, I named the study area "Samrong ward."

Khmer had Chinese (154), Viet (13), or both Chinese and Viet (3) kinship ties among their parents, grandparents, or great-grandparents on their father's, mother's, or both sides. Intermarriage between different ethnic groups is common, and as a result many villagers today identify themselves as ethnically mixed, or métis (in Vietnamese [VN], *lai*; in Khmer [KH], *cat*), and speak multiple languages.

Most residents of P. village maintain connections with Cambodian society through the Khmer language and Theravada Buddhism. Despite its distance from the Cambodian border, the village has two Khmer temples, from which monks, since at least the early twentieth century, have traveled to temples in Cambodia to undertake higher religious and secular education or to engage in meditation practices (Shimojo 2015, 24–33). The majority of villagers have relatives and acquaintances who travel to Cambodia for work, and many routinely cross the Vietnam-Cambodia border.

Examining changes in the local politics of P. villagers' migration patterns enhances our understanding of the Vietnam-Cambodia border and cross-border migration for two reasons. First, the mobility of ethnic Khmer, who are the majority in P. village and in Cambodia, often leads the Vietnamese state to give importance to regulating the border and cross-border migration. Second, the village's location far from the border exemplifies broader changes in migratory patterns in the Mekong Delta more accurately than a location on the border, reflecting which state (Cambodia or Vietnam) or which economic center (Phnom Penh or Ho Chi Minh City) historically attracted people in the delta in response to the economic and political conditions of each era. Analysis of societies located in the borderlands, where people routinely cross the border for their economic and social needs, may not reveal such historical migratory patterns.

III Migration during the Collectivization Era (1975–86)

III-1 *Refugee Migration*

Refugees who fled Vietnam from 1975 to 1986 during collectivization were generally regarded as "boat people" who crossed the ocean (*vượt biển*). However, many migrants in P. village evacuated over land, relying on their local knowledge of Cambodian society to move from Vietnam to Thailand via Cambodia. The number of such people from P. village increased after early 1979.

Following the reunification of North and South Vietnam, the socialist regimes of Vietnam, China, and Cambodia entered a new phase in their interrelations, shifting from an outward "fraternal" cooperation (in support of Communist revolutionary movements) during the Vietnam War era to "fratricidal" conflict in the post-Vietnam War era. The

Pol Pot regime spread anti-Vietnam sentiments, insisted on claiming territorial rights to the Mekong Delta, and frequently collided with Vietnamese military personnel stationed in the borderlands. Ultimately, Vietnam invaded Cambodia in December 1978 and occupied Phnom Penh in January 1979. To support the Pol Pot regime, China invaded Vietnam in February 1979, fighting in the Sino-Vietnam borderland (Elliott 1981, 8–10; Evans and Rowley 1984, 39, 45–57; Chanda 1986, 231–262; Kimura 1996, 76–90).

Due to the two international wars, ethnic Khmer and Chinese, and métis Khmer- and Chinese-Viets in P. village—whose loyalty to Vietnam was now suspect—were placed in a politically sensitive situation. In addition to the worsening of China-Vietnam state relations, most had lost their livelihoods due to the Communist government's promotion of collective farming and redistribution of land, its direct purchase of food, and its establishment of a rationing system. Landlords, rice merchants, millers, and shopkeepers who had engaged in the production and distribution of exported rice were forced to close their businesses.

In response to the political and economic situation, some people decided to flee by land. Com (a Chinese-métis Khmer), a family member of a once-rich landlord in P. village, described the journeys of his younger brother and sister:

> In Vietnam at that time, people were forced to participate in labor service [VN: *công tác*, KH: *polakam*], but they had no work of their own and no way to earn money. My younger brother crossed the Cambodia border and arrived in Thailand in 1979. He moved from Thailand to the Philippines by boat, and in the end he migrated to Canada. My younger sister and her husband arrived at a refugee camp in Thailand via Cambodia and migrated to Canada. Her husband had been engaged in the "revolution's work," but he had a difficult life.[11)]

As Com's brother-in-law's case reveals, the refugees included those who had participated in the "revolution's work" as cadres of the new government, indicating that economic difficulty was a more serious factor than political positions when deciding to flee. Having local knowledge of Cambodia was also an important factor for those choosing to flee by land. Com's eldest stepsister, Sang (an ethnic Khmer), pointed out that her younger brother had been sent to Phnom Penh as a South Vietnamese soldier during the Vietnam War, and therefore he was familiar with the city.[12)]

Upon Vietnam's successful invasion of Cambodia, tensions in the borderlands caused by the international conflict rapidly eased and more people fled overland, defying the border and making use of their own language and past experiences.

11) Interview with Com (born 1950), male, Chinese-métis Khmer, farmer, living in P. village, March 6, 2012.

12) Interview with Sang (born 1936), female, Khmer, farmer, living in P. village, January 12, 2012.

III-2 *Circulating Migration*

Beginning in 1979, migrant workers and traders as well as refugees repeatedly passed thorough the porous border. Some people in P. village circulated repeatedly between Vietnam and Cambodia. Rat, an ethnic Khmer, said:

> After the liberation, I didn't engage in collective farming because it was troublesome. After the Pol Pot regime collapsed in 1979, I traveled every two weeks between Phnom Penh and P. village as a *ku roup* [painter]. I sold pictures for 5,000 riel each until I stopped going to Phnom Penh one year later. In Vietnam fertilizer and agricultural chemicals were scarce and the land was not fertile, but business was free in Cambodia. I passed through Kompot in Cambodia via Ha Tien by car to go to Phnom Penh. I didn't cross the formal border but entered Cambodia by an informal route.[13)]

Although *ku roup* in Khmer means "painter," strictly speaking Rat was not a painter. To earn money in Cambodia, he collected pictures of deceased people from bereaved families and brought those pictures to a painter in P. village. The painter created portraits of the deceased, and Rat then returned to Cambodia to sell them to the bereaved families.

Rat went to Cambodia not only because the restrictions on private activities in the black economy there were comparatively lax, but also because he was accustomed to Cambodian society. He had been to Phnom Penh as a monk to study Pali at Unalom Temple for a year in the late 1960s, as many Khmer monks in the delta had in the past. Rat could also take advantage of the informal car route connecting P. village with Phnom Penh via Ha Tien and Kompot (see Fig. 1) that was being created at the time. Rat's narrative shows that repeated border crossing was possible because of the porous border.

In the mid-1980s, some people even migrated to Thailand via Cambodia to engage in undocumented work. Han said:

> I went to Thailand by car without a passport to work as a laborer [KH: *kammakor*], from 1986 to 1992. First I stayed in Phnom Penh for half a month, and after that I moved to Thailand. I did physical labor like loading and earned about 20 baht per day. The pay was a little bit better in Cambodia than in Vietnam at that time. Both Vietnam and Cambodia were under Communist rule, but Thailand was a liberal country. I stayed in Surin Province, Thailand, and I worked on a cassava farm for 20 baht per day. I could understand 80 percent of the Surin Khmer dialect. I don't know which road I used to cross the border, because I just went along with others and got into a car. I was a manual laborer [KH: *si chhunual ke*]. Vietnam was very poor, and furthermore, we were obligated to participate in labor service for one month per year. Although I had farmland in 1985, we only produced one annual rice crop, which was not profitable.[14)]

It was possible for P. villagers, many of whom could speak Khmer, to work not only in

13) Interview with Rat (born 1948), male, Khmer, farmer, living in P. village, February 28, 2012.
14) Interview with Han (born 1951), male, Chinese-métis Khmer, farmer, living in P. village, February 22, 2012.

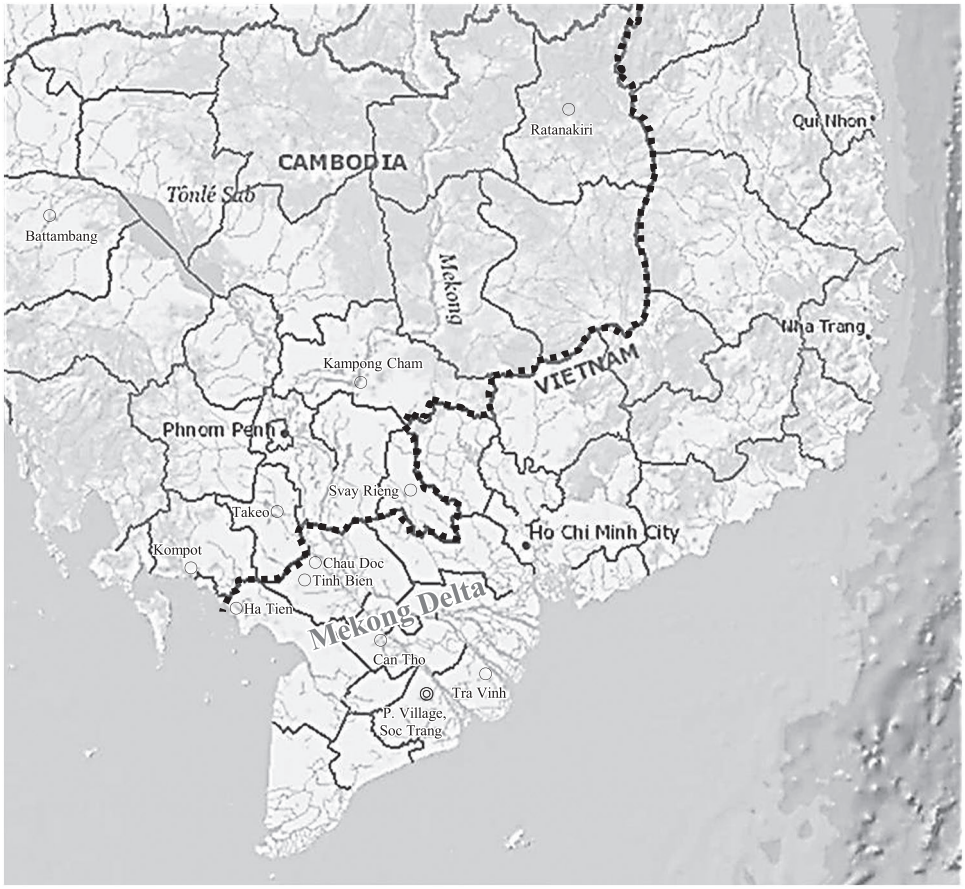

Fig. 1 Mekong Delta and Vietnam-Cambodia Border
Source: Esri, GEBCO, DeLorme, NaturalVue | Esri, GEBCO, IHO-IOC GEBCO, DeLorme, NGS.

Cambodia but also in Surin Province, Thailand, where many ethnic Khmer resided. Han's narrative reveals that groups of migrant workers from Vietnam crossed the border via informal routes with the help of mediators who prepared transportation for workers' groups to Cambodia and Thailand.

The two narratives above show that people from Vietnam went to Cambodia seeking less intervention in their lives and a freer economic space. After the Pol Pot regime was driven out of Phnom Penh in 1979, many people in the delta, especially Khmer speakers, crossed the Vietnam-Cambodia border to escape difficulties in their lives brought about by state policies. Migration from Vietnam to Cambodia and Thailand during collectivization, not only to escape the political situation but also to partake in cross-border trade and migrant work, was possible because in the face of political chaos,

the state powers could not control the porous border and the human flows searching for informal routes and work. During this time, although cross-border and internal migration was legally banned or restricted, it was socially licit in P. village and carried on across informal routes stretching from the village to Cambodia and on to Thailand. In that sense, the Vietnam-Cambodia border at the time did not function as a political apparatus to regulate interactions between migrants and the state or to functionally regulate the licitness or illegality of migrations.

IV Migration during the Early Đổi Mới Era (1986–mid-1990s)

IV-1 *Withdrawal of the Vietnamese Military from Cambodia*

At the beginning of the 1990s, the political situation in Cambodia began to change, prompted by the withdrawal of the Vietnamese military from that country. For a decade, Vietnam and the pro-Vietnam government in Cambodia (the Cambodian People's Party) had fought with Pol Pot's guerrillas and other anti-Vietnam forces that were supported by China and several Western countries. However, after mediation by the Soviet Union, which hoped to normalize its relations with China, Vietnam began to withdraw its military from Cambodia in June 1988, completing its withdrawal in September 1989 (Kimura 1996, 222–232; Gottesman 2003, 336–350). After the withdrawal, the political situation in Cambodia began to rapidly and drastically change. In 1991 the pro-Vietnam government and anti-Vietnam forces in Cambodia concluded the Paris Peace Accords. In 1993 the United Nations Transitional Authority in Cambodia (UNTAC) implemented a parliamentary election, which resulted in the establishment of the Kingdom of Cambodia and major changes in the country's politics and economy. By 1989 the Cambodian People's Party government had all but abandoned the socialist economic system, and in 1993 the new Kingdom of Cambodia government officially introduced a market economy system (Gottesman 2003, 280–300; Amakawa 2004, 4–14).

The change in the military power balance, political pluralization, and the introduction of a market economy in the early 1990s further motivated people in P. village to attempt to cross the border to escape economic difficulties.

IV-2 *Undocumented Migration of the Poor into Cambodia*

During the period of political change in Cambodia, the number of migrant workers from P. village seeking to escape economic difficulties increased to levels higher than the 1980s. The villagers I interviewed said that in the early 1990s the Cambodian economy was better than the Vietnamese economy, and that a significant number of Vietnamese

Table 2 Reasons for Migrating to Phnom Penh from Samrong Ward, 1979–2011 (unit: one person)

Year/Purpose	Work (including accompanying parents as a child)	Trip (including a visit to family or relative)	Military service	Obscure	Total
1979	0	0	1	0	1
1980	1	0	1	0	2
1981	1	0	1	0	2
1982	0	0	0	1	1
1983	0	0	0	1	1
1984	0	0	0	1	1
1985	1	0	0	1	2
1986	2	0	0	1	3
1987	1	0	0	0	1
1988	1	0	0	0	1
1989	1	0	0	0	1
1990	2	1	0	0	3
1991	2	1	0	0	3
1992	9	0	0	0	9
1993	7	0	0	0	7
1994	7	0	0	0	7
1995	7	0	0	0	7
1996	7	0	0	0	7
1997	7	0	0	0	7
1998	7	0	0	0	7
2000	6	0	0	0	6
2001	7	2	0	0	9
2002	7	2	0	0	9
2003	4	0	0	0	4
2004	4	1	0	0	5
2005	4	1	0	0	5
2006	3	3	0	0	6
2007	3	0	0	1	4
2008	3	2	0	0	5
2009	3	2	0	0	5
2010	4	7	0	0	11
2011	3	0	0	0	3

Source: Based on the author's survey conducted from November 2011 to January 2012.
Note: Sample size: 37 people in Samrong ward, Q. hamlet, P. village.

citizens lived in Phnom Penh. In Samrong ward, Q. hamlet of P. village, the number of migrants going to Phnom Penh to work was markedly increased from 1992 to 2002 (see Table 2). To determine how and why people went to Phnom Penh, I analyzed the oral histories of several people in P. village who had made border crossings.

The main reason why people migrated to Cambodia was their inability to cope with the rapid development of the market economy in Vietnam after the initiation of Đổi Mới in 1986. Đổi Mới reforms brought private economic activities that had been part of the

black economy during the Collectivization Era out into the open. As people began to engage in a wider range of crop productions, commercial production was diversified. In P. village, the cultivation of watermelon was popular at the end of the 1980s. According to an official monograph published by the communist party in Soc Trang province in 1988, trucks from Ho Chi Minh City and Can Tho would gather at P. village just before *Tet* (the lunar new year), and merchants would purchase watermelon produced in the village (Vũ Lân *et al.* 1988, 61).

Than, a Khmer-métis Chinese villager who lived in Samrong ward, Q. hamlet of P. village, told me that he cultivated watermelons from 1988 to 1990. He and his wife transported the harvest by bus to sell in Ho Chi Minh City. The variety of watermelon he grew was large but did not taste very good, so he could sell the fruit only as decoration for the *Tet* celebration. Since he could harvest only once per year, Than found it increasingly difficult to make sufficient profit from this endeavor and eventually stopped. After that he mortgaged his farmland to Hang, who was also a resident of Samrong ward, for 100 kg of rice at twofold interest before going to Phnom Penh (rice was desired because it was a valuable currency during the economic dislocation of the time).[15] Although some people, such as Than, attempted to produce new agricultural products, they did not receive any state support in the form of technical assistance, investments, loans, etc. Thus, they were at high risk of failure or becoming dependent on private moneylenders such as Hang, who often charged high interest rates.

Than said that he went to Phnom Penh for a year and a half from 1991 to 1992 with his wife and youngest daughter. Without a passport, he crossed the border not through a border gate but via an informal route. He worked as a traveling wharf laborer in a town near Phnom Penh, loading commodities onto a ship and traveling on the ship to Saigon, where he unloaded the items, and then repeating the cycle.[16]

People moved to Cambodia also to be closer to relatives. According to Than, his adopted brother (his parents' adopted child) had lived in Phnom Penh since 1982, so Than went to Phnom Penh relying on his relationship with his brother. His brother earned enough to live on, working in a factory manufacturing bottle lids. Than said that when he lived in Phnom Penh, he met many ethnic Viets who had migrated from Vietnam.[17]

Don, another P. villager, went to Phnom Penh with his family to work during the 1990s due to food shortages, insufficient profit from agriculture, and lack of agricultural

15) At that time, Hang had enlarged his farmland by claiming the land of another debtor who was unable to repay his debt. Interview with Than (born 1955), male, Khmer-métis Chinese, member of P. village people's committee, living in P. village, February 22, 2012.
16) Interview with Than, February 22, 2012.
17) Interview with Than, March 1, 2012.

expertise. He explained that he had sold all of his land because his wife was sick and his five children were very young.[18] According to his acquaintance, Don sold his land because, like many other villagers, he had failed in his watermelon cultivation enterprise.[19]

Thus, Don went to Phnom Penh to escape the economic difficulties experienced by farmers in rural villages in the Mekong Delta and to take advantage of the economic boom in Cambodia. Under UNTAC, Phnom Penh offered a significant economic incentive that attracted poor wage laborers: US dollars were used by the foreign militaries stationed there, and the value of the US dollar was much more stable than that of Vietnamese đồng or Cambodian riel.

Don's wife said that during the 1990s only agricultural wage labor such as rice harvesting was available in Vietnam. The average daily wage of a manual laborer in Cambodia was 5,000 riel for a woman and 8,000 riel for a man, but it was just 4,000 riel in Vietnam.[20] In Phnom Penh, Don's wife took care of housework while Don worked as a carpenter for 150,000 đồng per day.[21] According to Don's wife, the potential earnings in Phnom Penh meant that not only Khmer people born in Vietnam, but also many ethnic Viets, lived in Cambodia.[22]

The final reason why Don's family chose to go to Phnom Penh was that Don's older sister had moved there before the Pol Pot regime was established,[23] although, according to Don,[24] she died during the Pol Pot era. Don's wife explained that one reason they chose not to go to Ho Chi Minh City was because they had no acquaintances there. Thus, Don's family chose to go to Phnom Penh to work because the city was not an unknown place. The experience of Don and others highlights the importance of family or acquaintance networks in choosing the routes migrants traveled along and their destinations.

During the 1990s, like the 1980s, circulating migrants traded commodities and worked in the borderlands of the two countries. Con, who lived in P. village, told me that in the early 1990s there was no work in Vietnam and wages were extremely low, even in Ho Chi Minh City. To earn money, he traveled repeatedly between Cambodia and Vietnam from 1992 to 1993. His father, Rat, as mentioned above, also repeatedly crossed between Cambodia and Vietnam as a *ku roup* (painter) around 1979, after the collapse of the Pol Pot regime. Con said that he also went twice a month to Takeo Province in Cam-

18) Interview with Don (born 1953), male, Khmer, carpenter, living in P. village, September 9, 2011.
19) Interview with Than, February 22, 2012.
20) The exchange rate at the end of December 1992 was USD1 = 2,310 riel (Tomiyama 1993).
21) The exchange rate at the end of December 1992 was USD1 = 10,505 đồng (Murano 1993).
22) Interview with Don's wife (born 1954), female, Chinese-métis Khmer, homemaker, living in P. village, February 29, 2012.
23) Interview with Don's wife, February 29, 2012.
24) Interview with Don, March 4, 2012.

Fig. 2 Landscape of the Vietnam-Cambodia Borderland Visible from Tinh Bien District, An Giang Province
Sources: Left: Satellite photo obtained from DigitalGlobe, Earthstar Geographics | NOSTRA, Esri, HERE, Garmin, METI/NASA, USGS.
Right: Photograph looking toward the Vietnam-Cambodia border taken by the author at the location of the white spot in the photograph on the left.

bodia, near the Vietnam-Cambodia border, by local bus (*xe đò*) and collected pictures of deceased people by going door to door. Without a passport, he crossed the border either near Cam Mountain in Tinh Bien District or Sam Mountain in Chau Doc city in An Giang Province (see Fig. 1). His maternal uncle had migrated to Cambodia in the 1980s and worked as a goldsmith in Takeo Province.[25] Con stayed at his uncle's house.

The photographs in Fig. 2 are of the area surrounding a rice packaging factory located near the border in Tinh Bien District, An Giang Province in Vietnam, which is adjacent to Takeo Province in Cambodia. The borderland is located in a vast floodplain area, which is often inundated during the rainy season. The photographs show that there is no natural geography or official facilities to prevent people from crossing the border. In terms of intensive policing (Schendel 2005, 52), the Vietnam-Cambodia border, notably the Tinh Bien-Takeo borderlands, was more porous and permeable for people in P. village during the early Đổi Mới era than during the collectivization era. In addition, because internal migration was tolerated by the government after Đổi Mới, more and more people relied on informal and licit routes that had been continuously developed in several places since pre-Đổi Mới times, and where licit middlemen and networks prepared ships or land vehicles to enable cross-border migration.[26]

25) Interview with Con (born 1973), male, Khmer, guard at a junior high school, living in P. village, March 4, 2012.

26) The people whom I have interviewed so far mentioned Tinh Bien (a vast floodplain, see Fig. 2), Ha Tien (a port city on the Gulf of Siam), and Long Binh (a city along the Bassac and Binh Di Rivers) as popular informal border crossing areas during the 1980s and 1990s. These areas today have official border gates through which almost all people can cross with a passport.

IV-3 *Economic Attraction of Phnom Penh in the Early 1990s*

Whereas some people, such as Than, Don, and Con, relied on connections with family or relatives to go to Cambodia, others went based on their own experiences. For example, Thu, a Chinese-métis Khmer woman from P. village, had lived in Phnom Penh with her late husband from 1968 to 1973 or 1974, during the Vietnam War. After the initiation of Đổi Mới she was too poor to keep her land, so she sold it and returned with her five children to Phnom Penh, where she lived from 1992 to 2010. Without passports, Thu's family took a local bus with what little money they had and crossed the border via an informal route in Tinh Bien District. When the family arrived in Phnom Penh, Thu found that all of her husband's brothers had died during the Pol Pot era, and therefore she had no acquaintances left in the city. According to Thu, the prices of commodities in Cambodia in the 1990s were higher than those in Vietnam, but wages were better because Cambodia was economically more liberal. In 1993, when the United Nations established UNTAC, US currency became widely used in Cambodia. Thu opened a kiosk and sold food, while her children worked as laborers. She said that many ethnic Viets lived in Phnom Penh at that time. According to her, ethnic Viets, who comprised a larger population than Kampuchea Krom (Khmer born in Vietnam),[27] spoke the Khmer language fluently and operated street stalls in the city.[28]

During the early 1990s, people migrated to Cambodia because it offered better economic opportunities (including relatively higher wages). Although economically motivated, such migration relied on long-distance family or relative networks and personal experiences. The number of people crossing the border from Vietnam to Cambodia increased sharply in the early 1990s due to the rural economic depression in the Mekong Delta and political and economic transformation in Cambodia. Finally, undocumented border crossings were not fully controlled by the government because border governance at that time had not been sufficiently developed, and people noticed that many points along the border were still porous, especially in Tinh Bien District. Depending on family and other networks, and past memories and experiences connecting the two countries,

27) In 1970, when the Cambodian civil war broke out, the number of "Vietnamese citizens" in Cambodia decreased sharply from 400,000 to 210,000 (VNCHBKHPTQG 1973, 387). The number of "Vietnamese" was just 8,200 in 1981, when the Vietnamese military invaded, but had increased to 95,600 by 1995 (Usuki 2013, 26–28). It is unclear whether "Vietnamese" in some of the surveys conducted at that time referred to ethnic "Viets" or "Vietnamese citizens," including ethnic Khmer born in Vietnam. Furthermore, it is unclear whether people who migrated from Vietnam without possessing passports were counted in these statistics. However, what is certain is that the number of people classified as "Vietnamese" was increasing.

28) Interview with Thu (born 1947), female, Chinese-métis Khmer, seller of cheap candy, living in P. village, February 24 and March 3, 2012. In 2010 Thu moved back to P. village, where she set up a small business selling candy.

people created informal and socially licit routes stretching out from their village toward the border and beyond.

V Migrants and Border Control in the Post-Cold War Era (from the Late 1990s)

V-1 *People Circulating Legally between Vietnam and Cambodia*

As mentioned above, the political and economic situation in Vietnam began to change in the 1990s. Vietnam joined ASEAN in 1995, resulting in the removal of an embargo on external assistance, trade, investment, and loans entering the country. The main reasons for this change were the United States beginning to lift its economic sanctions on Vietnam after the signing of the Paris Peace Accords in 1991, the lifting of the US embargo on Vietnam in February 1994, and the US normalizing its diplomatic relations with Vietnam two weeks after the latter joined ASEAN (Kimura 1996, 283–285; Elliott 2012, 147–155). Vietnam became increasingly accessible to international society, and it became easier for Vietnamese who had moved overseas to return home to live.

The flow of people from P. village changed in line with the transformation in international politics. The major destination for people from P. village gradually changed from Phnom Penh to Ho Chi Minh City, the economic center of Vietnam, as the economic lure of Phnom Penh weakened. As shown in Table 3, the number of workers from Samrong ward migrating to Ho Chi Minh City and the surrounding suburbs was markedly increased between 2001 and 2011. Many of the migrants found work at timber- or fruit-processing companies, industries that were growing rapidly around Ho Chi Minh City. In contrast, the number of workers migrating to Phnom Penh was low between 2003 and 2011 (see Table 2). However, the number of people traveling to Phnom Penh to visit family members increased between 2001 and 2010, suggesting that although the transnational relationship between P. village and Phnom Penh remained, the number of people moving to Phnom Penh for economic purposes was decreasing.

In P. village, I often saw middle-aged or elderly people staying in the village for a few days or months but then suddenly leaving without notice. They would come from Cambodia and spend their time at a coffee shop engaging in enthusiastic chitchat with villagers regarding current news and rumors from Cambodia. They stayed with their children who lived in the village.

Some P. villagers earned enough to live in both countries by making strategic use of each country's unique political and economic situation. For example, Son, who was staying temporarily in P. village in August 2011, told me:

Table 3 Migrant Workers from Samrong Ward in Ho Chi Minh City and Its Suburbs by Type of Work, 1997–2011 (unit: one person)

Year/Type of Work	Agriculture	Company Processing Timber	Company Processing Fruits	Brickmaking	Driver	Other Wage Labor	Total
1997	0	0	0	0	1	0	1
1998	0	2	0	0	1	1	4
1999	1	3	0	0	2	0	6
2000	0	3	0	0	2	1	6
2001	0	3	0	1	2	4	10
2002	0	4	0	2	2	2	10
2003	0	4	0	0	2	2	8
2004	2	4	0	0	3	3	12
2005	0	4	0	0	3	3	10
2006	0	7	0	0	2	2	11
2007	0	5	0	2	2	3	12
2008	0	7	0	2	2	4	15
2009	0	4	1	2	1	2	10
2010	0	6	1	2	1	5	15
2011	0	5	0	2	1	2	10

Source: Based on the author's survey conducted from November 2011 to January 2012.
Note: Sample size: 57 people in Samrong ward, Q. hamlet, P. village.

> From 1978 to 1979 I worked as a laborer in Ho Chi Minh City, but from 1983 to 1990 I migrated to Cambodia to work. In Cambodia, I sold bread as a day laborer. After that I returned to Vietnam, but even today I go to Cambodia every four or five months. At the moment I am staying in P. village for three or four days until my passport is renewed, and then I plan to return to Cambodia. Every time I cross the border, I do so in Tinh Bien District. There are three casinos in Ratanakiri [Cambodia]. One of them is managed by Prime Minister Hun Sen. The casino's customers come mostly from Vietnam, so my daughter works there because she can speak Vietnamese. I have no land in Vietnam, but I have 20–30 *công* (2.6–3.9 ha) of land in Ratanakiri.[29] There are rubber tree plantations, and some foreigners are mining for gold there. In Vietnam, I can use medical services for free because I am recognized as a "poor household" by the government. Every time I get sick, I come back to Vietnam. When I have spent all of my money, I call my daughter and ask her to send me USD200–300.[30]

Son survives thanks to the social insurance for the poor in Vietnam and the economic boom in the Cambodian borderlands. He went to Cambodia and worked as a laborer in an undocumented way at least until the 1990s, as did many villagers. As he recently verified his Vietnamese citizenship by getting a passport, he now simultaneously uses the preferential treatment for poor households in Vietnam while depending for money

29) *Công* is the local unit for measuring land; 1 *công* is about 0.13 ha.
30) Interview with Son (born 1952), male, Khmer (his father was born in Cambodia), wage laborer, living in P. village and Ratanakiri, August 11, 2011.

on his daughter who works at a casino near the border in Cambodia. Only foreigners are permitted to gamble at casinos in Vietnam, so many casinos have been built in the borderland on the Cambodian side, catering to customers from Vietnam.

V-2 *Government Suspicion of Khmer Cross-border Migrants*

Why is Son recognized by the Vietnamese government as belonging to a poor household, and how can he use the Vietnamese social insurance system? Starting in 2001, Vietnam's government implemented policies to eliminate poor households, especially among ethnic minorities in the Mekong Delta.[31] Today the local government in P. village gives high priority to social insurance policies for poor Khmer households. The government exempts these households from school expenses and provides housing or assistance for their living expenses.[32] However, this special status is based on stereotypes and suspicion against Khmer within the Vietnamese government and society, which have historically considered Khmer to be poor. An official 1991 Communist Party document reports that ethnic Khmer do not receive enough of an education; therefore, some ethnic Khmer Communist Party members violate national policies because they do not understand the meaning of the ethnic and religious policies of the Party-state. The document also notes that the matter has had a negative impact on society, the economy, sentiment, thought, and politics.[33] Therefore, the government now focuses on Khmer people in order to avoid such negative impacts. The document continues:

> We must fight against the plots and means of the hostile forces who make use of historical issues, religious ethnic problems, and trifling mistakes, and distort plans, cause splits, stir up ethnic animosity, spread nasty rumors, and disrupt the implementation of the advocacies and policies of the Party-state.
>
> We organize and support ethnic Khmer in Southern Vietnam who hope to cross the Vietnam-Cambodia border to visit their relatives and acquaintances based on state laws, while restricting border crossings between the two countries. That is, we take people's convenience into consideration while protecting public order in both our country and our neighboring country.[34]

Thus, the Vietnamese government constructed a social insurance system for ethnic

31) Thủ tướng Chính phủ, Số: 74/2008/QĐ-TTg, Quyết định về Một số Chính sách Hỗ trợ giải quyết đất ở, đất sản xuất và Giải quyết việc làm cho Đồng bào dân Tộc thiểu số nghèo, đời sống khó khăn vùng Đồng bằng sống Cửu Long Giai đoạn 2008–2010, June 9, 2008.

32) Interviews with Than, January 13, 2011 and 7 March 7, 2012; Son, August 11, 2011; Cang (born 1950), male, Khmer, traditional medical practitioner, living in P. village, August 18, 2011.

33) Đảng Cộng sản Việt Nam, Ban Chấp hành Trung ương, Số: 68CT/TW, Chỉ thị về Công tác ở Vùng Đồng bào Dân tộc Khơ-mer, April 18, 1991.

34) Đảng Cộng sản Việt Nam, Ban Chấp hành Trung ương, Số: 68CT/TW, Chỉ thị về Công tác ở Vùng Đồng bào Dân tộc Khơ-mer, April 18, 1991.

Khmer in Vietnam, a border control system, and a system to regulate migrants in order to eliminate negative impacts on the Party-state. In addition, the government, which was not stable enough to realize its political and economic policies until the 1990s, has attempted since the turn of the twenty-first century to integrate ethnic Khmer into the nation-state and cut off influence from Cambodia with the provision of social insurance.

One day in 2011, while staying in Soc Trang, I interviewed an official who recounted the following incident:

> In 2009, before you came to Soc Trang, Khmer monks launched a protest against the government in Soc Trang Province. The protest broke out when traffic police arrested two monks for the violation of riding on the backseat of a motorbike. That affair was distorted and spread by evil people, who manipulated the monks into starting the protest. This incident is referred to as the "August Affair" among police.[35)]

Informants mentioned that the Vietnamese authorities were wary of "evil people," or members of political organizations formed by Khmer going from Vietnam to Cambodia who identified themselves as "Khmer Kampuchea Krom (Khmer of Lower Cambodia)." Using various forms of media, such organizations accuse the Vietnamese Communist government of ignoring historical problems, human rights violations, and religious oppression of ethnic Khmer in Vietnam.

Taylor analyzes the contesting narratives as follows:

> Although these contesting claims on the Khmers of Lower Cambodia/the Khmer minority of Vietnam are held with equal passion, each is coloured by deep ambivalence. Many Cambodians suspect that the Khmer Krom have been subject to Vietnamese assimilatory rule for so long that they are no longer fully Khmer. For their part, Vietnamese officials lament the recalcitrance of a minority group whom they label pejoratively as backward, insular and marginal, and whose continuing identification with Khmer nationalist mythology threatens the integrity of the Vietnamese nation. (Taylor 2014, 252)

How do these nationwide contestations affect local politics? The government has begun implementing conciliatory policies toward ethnic Khmer as it has become more cautious of them. For example, according to residents in P. village, although the government formerly fixed the date of Kathen—a Khmer festival after the end of the rainy season in which laypeople offer donations such as new robes to temples—since 2009 the authorities have allowed each temple to decide its own date on which to hold the festival.[36)] Also,

35) Interview conducted on September 7, 2011. I have anonymized the interviewee in order to protect the interviewee from political persecution.

36) Interview with Pho (born 1971), male, Chinese-métis Khmer, farmer, living in P. village, October 16, 2011.

during my stay in P. village, Communist Party members at the village, district, province, and even central government levels often visited Khmer temples during ritual ceremonies to donate large amounts of money.[37)]

While Vietnam's government emphasizes that it is considerate of the Khmer ethnicity and religion in Vietnam, it remains extremely cautious, even when people try to import items for religious activities from Cambodia. A good example is the process of importing books of the Buddhist Pali canon (the representative Buddhist scripture). Theravada Buddhist temples have imported the canon from Cambodia for a long time. Even today, there is no publisher that can print the canon in the Khmer language in Vietnam, so temple representatives must go to Cambodia to buy the books themselves. However, bringing any books into Vietnam is a complicated process and requires support from a local official. Ke, who works as chairman of the Buon Temple Committee in P. village, recalled that in 2006 or 2007 he was able to buy the canon, but:

> It took a total of two months to get my passport and complete the procedure. Than [a P. village policeman] offered to help me. It was necessary to get permission from the district committee to start the procedure. If we had imported the Pali canon without permission, it could have been confiscated. My wife and I hired a car and went to Phnom Penh with another policeman, the wife of the Party secretary in the village, and two monks. Although I invited Than, he was too busy with work to come with us. We bought about 100 volumes in a large building in Phnom Penh.[38)]

V-3 *Role of Middlemen in Negotiating between the Local Community and the State*

From 1998 to 2008, Than worked as a policeman and then as a member of the village people's committee, and he has been a clerk for the Buon Temple Committee for a long time. He was a monk in the Buon Temple from 1971 to 1975 and can read and write both Khmer and Vietnamese, so he was responsible for the exchange of documents between the temple and the local government. Because he had experience dealing with affairs of public order and administration, he was the temple's go-to person for government matters. He was also the preferred person for the temple to negotiate with the local government to obtain permission for religious activities and economic support from the secular authority. Than may be regarded as a middleman between his religious community and the secular authority.

Dealing with religious affairs was not his only work. As a sideline, he also instructed others on how to obtain official documents such as passports and ID cards. When I lived in P. village, people returning from or migrating to Cambodia would visit Than's house

37) Author's field notes, September 26–27, 2011.

38) Interview with Ke (born 1940), male, Khmer, farmer, March 6, 2012. It can be assumed that Ke bought the Pali canon at the Buddhist Institute in Phnom Penh.

and ask him to arrange the documents they needed. Than said that his monthly salary from the village people's committee was only 830,000 đồng (USD41 in 2011) but he earned no less than USD50 per month through his side business.[39]

The reason why Than could earn so much through this sideline is that the rate of literacy in the Vietnamese language among the villagers is very low, so most people are unable to deal with administrative procedures. The older people are, the more likely it is that they have received no public education.[40] To avoid problems when dealing with administrative procedures, people are dependent on Than, who studied to junior high school level and is now a government official.

Than also has knowledge of administrative procedures relating to people who crossed the border without documents, such as those who moved to Cambodia from 1979 to the early 1990s without a passport or ID card and recently returned home. For example, Thu said that although she returned to Vietnam in 2010 after crossing the border without a passport in the early 1990s, she still had not received her Vietnamese citizen ID card as of 2012.[41]

Although it seems that Thu does not have any intention of returning to Cambodia, many people still travel back and forth between the two countries. Because the local government exerts strict control over those crossing the border, migrants depend on middlemen such as Than who can help them obtain a passport and ID card. In fact, Than himself had been to Phnom Penh to work without possessing a passport in the early 1990s, and so he had a good understanding of the migrant's situation.

Both the local community and the state need middlemen like Than. If the Vietnamese government attempts to excessively restrict the flow of migrants, singling out the movement of Khmer people across the border, the state's legitimacy may be questioned, as it officially claims to be a multiethnic state that treats each of its 54 ethnicities equally. Excessive restrictions may upset residents who have historically been connected with Cambodian society though Theravada Buddhism. Mediated by local middlemen, cross-border migrants and the local government now negotiate over their belonging and identities regulated by the national border. In other words, after migrants and the state started to negotiate around the licit-ness and illegality of cross-border migrations, people had no choice but to be conscious of the border's existence and their nationalities.

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39) Interview with Than, February 8, 2012.

40) In Samrong ward, P. village, of the 419 people over 20 years old, 89 had never studied at a public school, 172 had studied in a primary school, and 111 had studied in a secondary school. Thus, the majority had never studied in a public school or had studied only up to primary school level (based on the author's survey conducted from November 2011 to January 2012).

41) Interview with Thu, March 3, 2012.

Conclusion

Cross-border movement has long been accepted as a licit (formally illegal but socially acceptable) (Abraham and Schendel 2005, 22–23) activity by the local community in P. village and overlooked by both the Vietnamese and Cambodian states. Even after the Vietnam War ended and North and South Vietnam were unified, state power was too limited to control the flow of refugees and migrant workers across the border, mainly because political control in the borderlands became lax with the Vietnamese occupation of Cambodia in 1979. The Đổi Mới reforms prompted the development of a market-oriented economy and a marked political transformation in both countries from the late 1980s to the mid-1990s. However, the process of rapid market liberalization coupled with the lack of social insurance policies in Vietnam also sent many peasants in Vietnam into economic difficulty. They fled life in Vietnam, traveling without a passport or documents via informal routes and across the porous border to Cambodia, where political changes and the rise of the market economy were more intense, to find work. Licit middlemen and transnational human networks facilitated their movement by preparing sea or land vehicles along these routes, which had developed and adapted since the pre-Đổi Mới era. Although it is generally assumed that the Đổi Mới reforms drastically improved people's livelihoods, this paper suggests the contrary. Without any official state support, people who decided to migrate due to the rural economic depression in Vietnam and the political and economic transformation in Cambodia had no choice but to rely on local moneylenders, family networks, and past experiences to secure livelihoods.

The situation changed in the early 2000s. Vietnam had joined ASEAN, accelerating its return to international society and the removal of many restrictions on the entry of foreign assistance into the country in the late 1990s. As a result, it experienced rapid economic development in the 2000s. Some people in P. village began to return to Vietnam from Cambodia due to the improving social and economic situation; others circulated between the two countries, taking advantage of better economic opportunities in Cambodia and the social insurance that the Vietnamese government began to provide. However, the establishment of greater political stability and a borderless market-oriented economy made Vietnam's government recognize the importance of ensuring control of the border.

To this day, many of those who returned from Cambodia do not possess passports or official ID cards because they crossed the Vietnam-Cambodia border during the 1980s and 1990s in an undocumented way. Local authorities in Vietnam continue their efforts to confirm the citizenship of these returnees, particularly because of the government's concern that Khmer nationalists in Cambodia might instigate unrest among ethnic Khmer

in Vietnam. Increasing amounts of information about Cambodia are reaching local communities in Vietnam through these returnees. Therefore, the Vietnamese government has recently attempted to regulate people's movements and improve their recognition of the state's territory by confirming citizenship and controlling the flow of information. At the same time, it is implementing insurance policies and conciliatory actions to appease ethnic Khmer.

These policies cut both ways. To deny the ethnicity and religion of the Khmer would call into question the legitimacy of the multiethnic state and produce discontent. Therefore, the government has no choice but to respect the ethnicity of Khmer in Vietnam while simultaneously denying the historical social ties between Khmer in Vietnam and Cambodia. For their part, local people are seeking out information and commodities from Cambodia and crossing the border as part of their everyday lives. The struggle between society and state reveals itself through middlemen who mitigate the concerns of both sides.

The situation in P. village reveals a dichotomy of social acceptance (licit-ness) and illegality with regard to migrants crossing the border. This dichotomy has recently become a political issue: as Vietnam's government intensifies its control of Khmer migrants who cross the border, the contradiction of the Vietnamese state territory and the principles underlying the government's ethnic and religious policies becomes more visible. Although the Vietnamese government has attempted to restrict the flow of migrants across the border and integrate them into the nation-state as an "ethnic minority," excessive regulation of migration would reveal the contradiction with the state principle to equally protect ethnic minority cultures, and in turn create discontent in society. On the other hand, local people must increasingly depend on state actors in order to make strategic use of the social and economic differences between Cambodia and Vietnam while avoiding excessive state control.

Today the Vietnamese state and border crossers continue subtle negotiations over the latter's belonging and identities, the duality of which has been socially sanctioned (licit) but is now becoming regulated by the national border, particularly through middlemen who meditate between the local government and migrants. Such negotiation was not visible during the 1980s and 1990s, when the border between the two countries was virtually porous despite being legally closed; it has become visible only since the early 2000s, when the political and economic situation of each country began to stabilize and mobility between the two countries was openly institutionalized and legalized. The changes in migratory patterns indicate that the national border, despite being mapped and officially established, is not always etched in the minds of people. This is especially true of minorities who have connections with people in the neighboring country. Rather,

the national border begins to be etched through everyday and continuous interactions between state actors, who become suspicious of influence from a foreign country, and cross-border migrants, who become dependent on the state for their needs.

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Peasant Violence in Early Nineteenth Century Philippines and Guatemala: The Cases of Apolinario de la Cruz and Rafael Carrera in Comparative Perspective

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The Philippines and Guatemala belong to a common indigenous Hispanic cultural sphere defined by the presence of large numbers of pre-Hispanic populations and their transformation by the institutions and rule of a shared history within the Spanish Empire. In the first half of the nineteenth century both regions were undergoing analogous fiscal pressures and economic transformations toward capitalist modes of agricultural production. They were also being introduced to global markets: the Philippines under the tutelage of a colonial regime and Guatemala under an inexperienced and dysfunctional federation of states. The brunt of the economic changes fell mostly on the lower castes of their societies, indigenous peasants. During the 1830s and early 1840s, despite efforts by the authorities in the Philippines to modernize and universalize the management of tribute in the colony, the territory's fiscal system varied throughout the archipelago. By 1841, the year of the *cofradía*'s uprising in the province of Tayabas, tribute administration remained under the old corruption-plagued system led by *alcaldes mayores* and *gobernadorcillos*. These factors help to explain the background and motivations for the early nineteenth century peasant revolts led by Apolinario de la Cruz in the Philippines and Rafael Carrera in Guatemala.

Keywords: colonialism, peasant violence, Philippines, Guatemala, Apolinario de la Cruz, Catholic Church, state repression, *cofradía*

The study of peasant violence in the early nineteenth century requires an interregional comparative perspective. The Philippines and Mesoamerica make appropriate candidates for interregional comparison due to their relative similarities in socioeconomic composition, colonial history, and political importance within the Spanish-dominated territories. The aim of this research is to analyze the 1841 Cofradía de San José revolt led by Apolinario de la Cruz in the Philippines in comparative perspective with the peasant rebellion led by Rafael Carrera in Guatemala in 1837. The revolt led by Apolinario, a former lay brother

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in the San Juan de Dios Hospital in Manila, was ultimately put down by Spanish colonial authorities in November 1841; and the movement led by Carrera, a former army drummer and pig farmer, managed to defeat the Central American federal government in March 1840. However, this research's assumption is that both cases represented the reactions of countryside peasants unified under the banner of religion against state intrusiveness in peasant traditional life and the imposition of heavy tribute during a period of rapid economic change in both locations and beyond. The paper will first give a sociopolitical description of the backdrop to the two revolts. It will begin by discussing the issue of land property as established in colonial legislation, followed by a brief survey of the economic conditions in the first half of the nineteenth century in both locations, continuing with a description of the reforms made to tribute collection. A brief description of the independence of Central America will be given to provide the reader with the political context in which the peasant revolt occurred in the former Kingdom of Guatemala. Lastly, the topic of religion in both territories' revolts will be addressed. The research finds that peasant violence occurred in Guatemala when the state intervened in peasant life through the imposition of heavy tribute, forced labor, and/or confiscation of church and communal property—features in colonial and former colonial states adjusting to capitalist modes of production in the early nineteenth century—and suggests that similar forces were at play in the province of Tayabas (now Quezon Province) in the Philippines during the revolt of the Cofradía de San José and should be regarded as possible explanations for the 1841 peasant revolt in the Philippines.

The Imposition of Hispanic Modes of Property in Spain's Overseas Dominions

Spaniards brought novel Hispanic institutions into the newly discovered lands of the Americas and the Philippines; and, most important, they imposed these Hispanic institutions on the newly discovered peoples. The new Hispanic modes of property introduced the concept of individual ownership of land, an alien concept for indigenous peoples who had previously exploited land under the basis of *ejidos*, or communal ownership of land. This communal mode of land exploitation was standard not only among the peoples of Mesoamerica but also among all the indigenous peoples whom the Spanish encountered in their overseas expansion, both on the American continent and in the Philippines.

From the sixteenth century onward, there were already two types of individual agricultural property owners in the Kingdom of Guatemala: owners of small properties who worked in subsistence agriculture; and owners of large properties, better known as haciendas, which were geared toward commerce in agricultural surpluses either in

domestic markets or overseas. The owners of small properties were for the most part *ladinos*—people who were ethnically indigenous but culturally Hispanic or mixed-raced Spanish and indigenous (*mestizo*). *Ladinos* tended to have more pronounced indigenous than Spanish physical features. The haciendas were for the most part owned by Spaniards, *criollos*—Spaniards born in the colonies—or corporately by religious orders. The masses of indigenous people exploited their lands in the form of *ejidos*.

The majority of *ladino* settlements did not enjoy any legal support throughout the colonial period. Colonial authorities also resisted the founding of new *poblaciones* or towns that would have given these groups access to more land. Large property owners backed the authorities' resistance to the founding of new settlements and to the conferral of legal rights to these small owners (Solórzano 1984, 98). It was also common for peasants to settle within the boundaries of haciendas, whose owners accepted them due to the labor they provided on their property and the possibility of retaining some proportion of the goods produced by the peasants as a form of payment for the use of their land. In fact, there were many cases in which *poblaciones* and towns were founded within haciendas, as studies from El Salvador demonstrate (Solórzano 1984, 98), and which occurred in Guatemala as well, particularly on its southern coast. One example of the latter is the current municipality of Palin, which originated from a previous hacienda. It is likely that such developments were commonplace in the region. Due to these complexities it is hard to determine with precision which territories were actual haciendas and which were settlements of a conglomeration of small producers utilizing common lands. What can be said with more certainty is that the expansion of territories owned individually by either haciendas or small landowners was occurring at the expense of indigenous communal lands and was analogous to the demographic increase of non-indigenous groups.

Another important element to consider is that in those regions of the kingdom where the proportion of the non-indigenous population was higher, the income generated for the government's treasury from sales taxes (*alcabala*) was among the most important sources of revenue; this was the case in San Salvador in the last two years of the eighteenth century. Conversely, in areas where the proportion of the indigenous population was higher, the most important source of revenue was tribute; this was the case in Chiapas, now in southern part of Mexico, and most of Guatemala (Solórzano 1984, 109).

The Legal Basis of Property in the Indies: *Recopilación de leyes de Indias*

As in Mesoamerica, Hispanic institutions—among them individual ownership of land—

were to be imposed in the Philippines upon indigenous populations that for generations had possessed their lands communally. Through individual landownership, proprietors were able to exclude outsiders from seemingly freely available land. This state of affairs would be hard to understand by communities on the islands that were used to working the land communally. It was expected that there would be clashes between communities needing access to lands and property owners excluding them. Nicholas Cushner's (1973) research on Meysapan, an Augustinian property formerly located in Tondo, is a good case for studying the development of large state holdings in the Philippines that could have been replicated in other parts of the territory.

The origins of Meysapan can be traced to a sixteenth-century royal grant in favor of the Augustinians of San Pablo monastery, a holding that would increase in size through the acquisition of nearby land initially owned by both Spaniards and indigenous groups in a succession of transactions that would turn Meysapan into "one of the largest estates in seventeenth-century Philippines" (Cushner 1973, 34). Cushner states that the legal basis for the acquisition of property in the Philippines was the *Recopilación de leyes de Indias*, Book IV, Title XII, particularly Laws I, II, VII, IX, and XIX. The *principalia*, the native elite class of colonial Philippine society, seems to have benefited most when Hispanic modes of property were imported from overseas, a situation that allowed many in the group to gain individual ownership of village lands.[1)]

In the *Recopilación*, it is established in Law I that:

> It is our will that it may be given and be given houses, *solares*,[2)] lands, *caballerías*,[3)] and *peonías*,[4)] to all those who settle in the new lands, that by the governor of the new settlement be indicated,

1) In his paper, Cushner refers to the newly introduced concept of individual landownership as private ownership, an understanding of property rights shared by James Lockhart. It is important for the reader to be aware that the *Recopilación* itself does not mention the concept of private property or ownership; it discusses property ownership in terms of the Spanish word *propio*, which carries connotations of individual, particular, and/or proper (but not private) possession of an object. *Diccionario de la Lengua Castellana* (1791) defines *propio* as "What belongs to someone, with the right of using it freely to his will," while it defines *privado* as "What is executed by the view of few familiar and domestically, without formality" and "what is particular and personal of each," among a few other definitions not relevant here (DLC 1791, 696). When the *Recopilación* uses the word *privado*, it does so mostly as the past tense of *privar*, which is defined by the same dictionary as "to strip away, or remove something that was possessed" (DLC 1791, 682) and used in the description of penalties and punishments for individuals who transgressed the law. For instance, an *alcalde mayor* who bought silver illegally would be *privado* (removed) from his office (Tribunal Supremo de Justicia 1841, 142). This is not to challenge the validity of employing the term as Cushner does, but to clarify the use of the word in the context of the time studied. The link between *privado* and property would probably persist until the nineteenth century.
2) Small landed property where a house was built.
3) Large unit of land around 43 hectares.
4) Small unit of land around 4.46 hectares (Konetzke 1977, 40).

> making distinction between esquire and pawn, and those of lower grade . . .

and particularly Law IV:

> If in the already discovered areas of the Indies there are some sites and regions so good that it suits the formation of settlements, and some people are willing to settle and live in them . . . the viceroys and presidents give them in our name lands, *solares*, and waters . . . and be it for the duration, according to our will. (Tribunal Supremo de Justicia 1841, 119)[5)]

Thus, we can appreciate that land was a patrimony of the Spanish Crown, and the distribution of land was to be done by high-level colonial bureaucrats in the name of Spanish monarchs, who granted land to those who were deemed to have provided loyal service.

In the case of Meysapan, the large state managed to increase its holdings through donations by *principalia* owners who expected goods or services in return for their donation, such as the provision of livestock or yearly Masses by local priests. By donating land to the Augustinians, the previous owners of the lands were in fact circumventing the prohibition by the *Recopilación* against the selling of property to religious orders or any member of the clergy (*Recopilación* Book IV, Title XII, Law X). Cushner mentions the case of Julian Talo, a principal land speculator who purchased land from other Filipinos in 1624 and later sold that land to the Augustinians for 300 pesos (Cushner 1973, 36). How Talo was able to sell his land to the clergy is unexplained, but two years later he made another donation to the religious order. It was in such ways that the religious group expanded its territory. The means through which these *principales* acquired ownership of the lands they donated or sold is not clearly explained, but it is reasonable to expect that their access to members of the colonial bureaucracy must have aided them in the acquisition of previously common land.

The estate of Meysapan leased land mainly to local natives and also to some Spaniards, sometimes through contracts with specific obligations and time of validity. Work in the lands of the religious orders must have been attractive for natives in the surrounding areas since domestic service to the religious orders granted exemptions from tribute and personal services (Cushner 1973, 44). In this way, the necessary labor force was obtained for the exploitation of the land. Meysapan is a representative example of how large haciendas originated in the Philippines during the centuries of colonial rule by the Spanish. Cushner concludes by stating that the imposition of "the concept of private ownership of land, superimposed on the native population, had created oppressive

5) The original Spanish documents were translated into English by the author of this paper. All responsibility for any error of translation falls entirely on this author.

landholding patterns beneath whose weight the Filipino peasantry is still struggling" (Cushner 1973, 53). The patterns of landownership were diverse in different parts of the Philippines, as also in Mesoamerica. What can be said in a general way is that the large state was a feature of Spanish rule in all of its possessions and became the economic basis for land exploitation. In addition, it represented a source of friction with natives, particularly in territories with large native populations. The hacienda, an economic unit with a semi-governmental domain (Lockhart 1969, 425), would become the foundation on which nineteenth-century capitalism would be based, having at its core the governmental bureaucracy as the distributor and arbiter of patrimony.

The Economic Importance of *Estancos* in the Early Nineteenth Century

After Spain's loss of possessions on the American continent, it became crucially important for Spanish colonial officials to achieve self-sufficiency in Manila. Commerce would be the way to achieve self-sufficiency, but due to the slow progress of commerce in the Philippines the colonial state became the main economic agent, capable of developing the market and the bases needed for the production and distribution of certain mass-consumed goods. It was on this basis that the state participated in the archipelago's economy through an economic model based on *estancos* (government monopolies), which became the key existential link between the colony and metropole throughout the nineteenth-century Philippines (Fradera 1999, 28). The years 1820–1920 represent a period of radical change in the Philippines, due to the unstoppable progress of the Industrial Revolution and the high demand for agricultural goods produced on the Philippine islands, most important among them tobacco, abaca, coffee, and sugar (Larkin 1982, 612). These new products competed favorably in global markets and represented an important opportunity for Spain's non-metal-producing colonies to acquire an economic significance previously not even imagined. For the Philippines, Cuba, and Puerto Rico, it also meant a further century under the command of Spain (Álvarez 2004, 115).

The improvement of fiscal incomes in Philippine coffers would come mainly from sugar and tobacco, complemented by alcohol made from coconuts, among other products. Debates on the future of the Philippines within the Spanish world had been ongoing since Miguel López de Legazpi reached the islands in the sixteenth century. In 1782 José Basco y Vargas, in a political move aimed to improve the income for the military in the Philippines, established *estancos*, a significant novelty that would later become the key institution for the modernization of nineteenth-century Philippine economic life, and the sought-after financial solution to the bankruptcy and final independence of New Spain

(Fradera 2005, 48). The Philippine government's revenue from *estancos* in 1839 was around 67.5 percent of total revenue. The percentage would keep increasing over the years. The second-most important source of revenue was tribute, which represented 20.3 percent of the total in 1839 and 19.8 percent in 1852 (Fradera 2005).[6)]

This economic dependence on *estancos* and Indian tribute and labor was shared also in Mesoamerica and would constitute the main characteristics of nineteenth-century sociopolitical life in both regions. These two sources of income became indispensable for the Philippine government to try to keep itself economically afloat, especially since by 1834 and 1839 the territory remained economically strained and its trade balance and pension system in a clear deficit (AGI 1834; 1840b). The First Opium War (1839–42) also caused strains in the islands' commerce, with the arrival of boats reduced due to developments in China (AGI 1841). So dire was the economic situation that the Philippine Treasury was unable to completely honor payments due and was falling behind in its obligations. For instance, in 1840 the Philippine Treasury was ordered to make a payment of 247,000 pesos, of which only 84,250 pesos could be paid (AGI 1840a). Channels existed for the avoidance of forced Indian labor and tribute. One was military service, particularly in the Philippines; and another was membership of religious organizations such as *cofradías*, which conferred immunity from forced labor (Di Tella 1990, 24). Exemptions were possible also by working on lands possessed by religious orders, as mentioned earlier. The *alcalde mayor* was the highest local official in charge of the hacienda (treasury) of its jurisdiction, and the *gobernadorcillo* acted as the local agent responsible for the collection of tribute, proceeds from the sale of indulgences, and exemption fees from personal service obligations (Bankoff 1992, 681–682).

One of the most significant sources of revenue for the treasury of the Kingdom of Guatemala was the subsidies emanating from New Spain, a dependency that was also shared by the Philippines, Cuba, and Puerto Rico, until economic depression forced New Spain to suspend financial aid in the second decade of the 1800s. The subsidies were meant to be invested in the modernization and military defense of these territories. For the kingdom's treasury, there were four main sources of income: the first was government monopolies or *estancos* of tobacco and *aguardiente* (liquor); the second was *alcabala* (sales tax) and *almojarifazgo* (trade taxes); the third was Indian tribute; and the fourth was the Church tithe. Of the four, *estancos* of tobacco and liquor represented the most important source of income by 1820, providing around 50 percent of the income

6) Before the establishment of *estancos* of tobacco, tribute was the most important source of government revenue in the Philippines. Its importance at the close of the eighteenth century was even higher if taking into consideration provincial records of tribute collection as opposed to the accounts registered in Manila (Álvarez 2004).

entering the treasury of the kingdom just before the final separation with Spain (Hawkins 2004, 41).

On the Bourbon Reforms, Reformation from Above

As the Spanish historian José Miranda González described, reformer heads of state—from Catherine the Great of Russia to Holy Roman Emperor of Austria Joseph II and Charles III of Spain—were heading a process of modernization sweeping Europe under the banner of enlightened despotism (cited in Commons 2003, 42). The gradual top-to-bottom process of reformation and modernization of Spain's metropolitan and colonial bureaucracies that began in the early eighteenth century under the new Bourbon Dynasty is known collectively as the Bourbon Reforms. For Spain and its colonies, the main aims of the reforms were uniformity and universality of the legal framework (a result of which was the *Recopilación*), a reorganization of administrative territories through intendancies, stimulation of the economy through enterprises that would increase the wealth of the kingdoms (the formation of *estancos* was a result of this impulse), among other measures in the realms of commerce and education. The Crown's goal with these series of measures was to regain authority lost to the lower hierarchies of the colonial bureaucracy and traditional groups of colonial society, an erosion of authority that accelerated in the economically depressed seventeenth century. In essence, the measures were designed to consolidate absolutism in the lands belonging to Spain (Arroyo 1989, 89).

Among the most important reforms was the introduction of the intendancy system. Intendants were responsible for collecting revenue (a duty that previously belonged to the *alcalde mayor*), finding means to increase revenue, supervising the lenders of land and preventing them from oppressing the people in their jurisdiction, granting payment delays to farmers when needed, among other administrative duties (Fisher 1928). Aimed at improving the collection of tribute and limiting the corruption of local officials, intendancy was introduced progressively across the Indies: in Havana in 1764, northern Mexico in 1768, Louisiana in 1775, Venezuela and Argentina in 1777, the Philippines in 1782 (where the system did not enjoy much success) (Fisher 1928, 8), Peru in 1784, and the Kingdom of Guatemala in 1786 (where five intendancies were set up). Although the initial plan was to create five intendancies in the Philippines—in the territories of Manila, Ilocos, Camarines, Iloilo, and Cebu (Commons 2003, 59)—only one was established, in Manila. It was removed after two years, making the income collection system in the Philippines inconsistent with developments on the American continent and also making tribute collection different among the Philippine provinces themselves, a characteristic

that would have implications for the events described later in this paper.

A possible reason behind the failure to implement the intendancy system may have been disputes surrounding the competing jurisdictions between the new intendants, the previous structure of *alcaldes mayores*, and a network of officials from the Treasury Superintendency (Fradera 1999, 103). Despite the bureaucratic reformist zeal in the Americas in the final decades of the eighteenth century, the Philippines would see the continuation of power of the "*alcaldes mayores*, and *corregidores*, parish priests and curates, all of them structured over the mechanisms of control associated with the collection of indigenous tribute" (Fradera 1999, 105). Given that *alcaldes mayores* in the Philippines were to retain their tributary functions, let us examine the importance of their roles, the implications of their roles on the Philippine political system, and what the roles meant for Guatemala when these officers were in place.

Alcaldes Mayores, Tribute Collection, and Governmental Corruption

Tribute was one of the main sources of revenue for the Manila authorities from the establishment of the captaincy in the sixteenth century until the final century of Spanish possession of the islands. Tribute was imposed on *indios*, *mestizos*, and Chinese according to a pyramidal structure: *indios* were taxed the least and Chinese the most—but Chinese were exempted from labor obligations—while the *mestizo* caste fell somewhere in between. This progressive tax structure was based on the castes' varying capacities to produce wealth: the Chinese were the biggest producers of wealth and the indigenous peasants the smallest—although for Edgar Wickberg there might have been in the Spanish mind a correlation between economics and biology (Wickberg 1964, 64). Tribute (*capacitación*) and labor obligations (*polos y servicios*) were not required of the traditional *principalia* posts of *cabezas de barangay* and *gobernadorcillos*, including members of their immediate family, and those who were working the land in large haciendas belonging to religious orders. In the seventeenth century indigenous soldiers who had provided exemplary service to the state could also be exempted from *bandala* (forced purchase of agricultural goods) and *repartimiento* (forced labor) (Mawson 2016).

The collection of tribute depended on *alcaldes mayores*, *gobernadorcillos*, and *cabezas de barangay* alongside lesser-known but important lower clerical officials such as the *directorcillo*, who aided the *gobernadorcillo* in legal matters and tasks involving the Spanish language, an ability that most *gobernadorcillos* lacked, and the *fiscalillo*, the ecclesiastical counterpart who aided local priests in distant towns (Bankoff 1992). As in Mesoamerica before the introduction of the intendancy system, the collection of tribute

was plagued with corruption; and the result was

> much more than simply corruption. An entire commercial system based on government officials came into existence. The Spanish *corregidores* (magistrates), *alcaldes mayores*, and governors who ruled in the Kingdom of Guatemala in reality were entrepreneurs who organized a variety of business activities that affected the economic integration of the whole of Central America. (Patch 1994, 78)

Robert Patch reveals that the average salary of an *alcalde mayor* in eighteenth-century Western Guatemala was around 600 pesos a year, but corrupt practices could boost that income to 12,000 pesos (Patch 1994, 98). To put this amount in context, Eliodoro Robles notes that in the nineteenth century the captain and governor-general of the Philippines received an annual salary of 13,325 pesos and three grams of *oro común*, which combined amounted to 20,000 pesos (Robles 1969, 16); the official salary of the viceroy of New Spain was a similar amount. Geography mattered: it was in regions with high concentrations of indigenous populations that there was more opportunity for wealth accumulation by local officials. This system allowed the Crown to maintain a colonial bureaucracy at little cost, and presented local bureaucrats with commercial channels for personal enrichment, a system where corruption was "an integral and necessary part of the colonial system" (Patch 1994, 80). This same system was in operation in the Philippines. Cushner describes how local officials such as the *gobernadorcillo*, who "represented the central government on the village level, was reduced to practice fraud in order to support the ordinary running of village affairs" (quoted in Bankoff 1992, 682).

Reform of Tribute Collection in the Philippines

Josep Fradera in *Filipinas, la colonia más peculiar* (1999) gives a very detailed and clear description of the reforms that *alcaldes mayores* experienced in the Philippines. The *alcaldes mayores* were responsible for the collection of tribute. They depended on a network of local officials led by *gobernadorcillos* and *cabezas de barangay*, in a process that depended on tributary lists produced by local parishes. Tribute was required to be paid to the *alcalde mayor* and his network of subdelegates (*gobernadorcillos* and *cabezas de barangay*) in the form of produce, usually unhusked rice (*palay*), which was then transported and sold in local markets by the *alcalde* at a profit. This suggests that the amount of rice collected from peasants was inflated for the purpose of personal profit by the collectors. The system was rife with corruption, as mentioned above, and measures were taken to gradually reform it beginning in 1768, with limited success. The most important

modifications to the collection of tribute occurred in the first half of the nineteenth century. In 1826 tribute was required to be paid in metallic money in an attempt to curb the abuses of the *alcaldes* and *gobernadorcillos*. The gathered amount was to be placed in accounts belonging to the Philippine Treasury (previously it was deposited in provincial accounts), and in 1837 it was decreed that jurists should be named for the post of *alcalde mayor*.

In spite of all these measures, adoption was not uniform in all the territories. In 1837 a decree established that military officers were to be named *alcaldes mayores* in the provinces of "Caraga, Samar, Iloilo, Antique, Capiz, Albay, Camarines Sur and Tayabas" as well as the Marianas, Cavite, and Zamboanga, which already had military governments (Fradera 1999, 172). It would not be until 1844 that the *alcaldes* lost the privilege of carrying out commercial activities while holding office. By 1840 most provinces were collecting tribute in the form of metallic money, with the exception of Tayabas and Ilocos, which were still paying in commodities. A number of important circumstances coincided in 1841, the year that Apolinario's brotherhood violence erupted: first, the group's home province of Tayabas was still required to pay heavy tribute in the form of rice; second, the *alcalde mayor* in charge of tribute collection was a military officer; third, the *alcalde* still retained the right to commerce, which was a means for personal enrichment and a source of abuse against peasants; and fourth, Tayabas Province was still being run by *gobernadorcillos* even though the surrounding provinces were not.

Guatemala and the Preservation of Empire

The process of gaining independence in the Kingdom of Guatemala was quite different from developments in the seat of government in New Spain and in the Spanish colonies of South America. While Mexico and South America were involved in violent civil wars in 1810–21, the Kingdom of Guatemala—like Cuba, Puerto Rico, and the Philippines—remained stable and loyal to the absolutist Ferdinand VII, making the kingdom a case of preservation of empire (Hawkins 2004). Guatemala's independence came about not through a violent independence struggle, but through the political instability caused by a military revolt in 1820 led by Rafael del Riego in Spain against Ferdinand VII, which forced the king to restore the contentious Constitution of 1812. The constitutional crisis in Spain led to Mexico's decision to finally secede from Spain and form an independent Mexican Empire in 1821. Mexico encouraged the Kingdom of Guatemala to secede from Spain and join its new empire; at the same time, it dispatched military forces toward the Guatemalan border in order to exert pressure. Ultimately, Guatemalan representatives

agreed that the Guatemalan territory would join the Mexican Empire. Thus, the struggle for the independence of Central America from Spain was carried by Mexico, and was not a result of an internal project that aimed for the emancipation of the former kingdom (Acosta 2014, 17).

Mexico's experiment with independence, led by the military man Agustín de Iturbide, would be short-lived. The experiment began when the viceroy of New Spain sent Iturbide to defeat the rebels approaching the capital in 1821. After seeing the strength of the rebels, Iturbide signed a pact with the rebel leader, Vicente Guerrero, known as the Plan of the Three Guarantees.[7] In it, New Spain declared its independence from Spain (first guarantee), established Catholicism as the state religion without tolerating any other (second guarantee), and declared the union between Americans and Europeans (third guarantee). The plan named, of all people, Ferdinand VII as emperor of the new political entity (Article 4), or in his absence any other prince from the Bourbon Dynasty (Mexican Government Documents 2019).

After the plan was rejected by Ferdinand VII, Iturbide was named emperor by the Mexican Congress in May 1822. By March 1823 Mexico was once again embroiled in a civil war, and Iturbide's short reign ended with his abdication. Central America convened a congress and in June 1823 declared its annexation with the Mexican Empire null and void. In this way the Central American region found itself surprised with independence for a second time, and once again without violence (Acosta 2014). This marked the beginning of the United Provinces of Central America, and this was the political backdrop against which Carrera's peasant uprising would make its appearance.

Peasant Revolts, Reactions from the Countryside

Both the revolt by the Cofradía de San José led by Apolinario in Tayabas Province in the Philippines and the movement led by Carrera in eastern Guatemala were peasant revolts that could be categorized as movements of the folk, of the masses, of those coming from the villages, of the laymen—or, using a term employed by Robert Redfield, revolts belonging to the little tradition (Redfield 1955; Sturtevant 1976; Ileto 1979).

Both uprisings—in 1841 in the Philippines, and in 1837 in Guatemala—were led by charismatic leaders from humble origins who had participated, however indirectly, in two of the most important political institutions of the nineteenth century, the Church and the military. These two institutions were for the most part the only channels in colonial

7) Widely known as the Plan de Iguala.

society (and postcolonial society in the case of Guatemala) that could provide some measure of upward social mobility to a small number of members of the lower castes.

Apolinario (or Hermano Pulé) was born in 1815 in Lucban, Tayabas Province. Encouraged by churchmen, he attempted to have a clerical career, but this was ultimately denied to him by the Spanish authorities. He worked as a *donado* or lay brother in the Hospital San Juan de Dios, in Manila, for six years until he was unexplainably fired in March 1840. The ex-*donado* along with other members of his community founded the Cofradía de San José in 1832 in his hometown of Lucban. The *cofradía* enjoyed great popularity and an increase in membership, which in 1840 numbered in the thousands. This success drew the suspicion of local authorities and led to a series of measures against the brotherhood. The brotherhood sought official recognition from secular and religious authorities numerous times, but each time it was denied. The authorities' responses were increasingly repressive, which led to an open revolt by the brotherhood on October 23, 1841. Despite its initial success in the revolt, the *cofradía* was suppressed by colonial authorities on October 31, 1841, and its leader, Apolinario, was executed a few days later.

Carrera was born in 1814 in what is today Guatemala City. Of mulatto, mestizo, and Spanish descent, he was described as possessing a physical complexion closest to an Indian's (Woodward 2008). Born into a humble family, Carrera enlisted in the federal army as a drummer when he was 12 years old. He rose through the ranks to attain the title of sergeant. After his time in the army he engaged in several odd occupations, from being a cochineal planter to finally becoming a pig farmer in the eastern town of Mataquescuintla in 1832. Motivated by members of the Church to fight against the government's liberal anti-clerical policies and the implementation of forced labor, he led the rebellion in 1837 that eventually saw the collapse of the government. He participated in the creation of a conservative government that he himself eventually oversaw.

The ages of both leaders are noteworthy: Apolinario was 27 years old at the time of his revolt (AHN 1842), while Carrera was 23 years old when he led his movement.

Causes of the Revolts, the Push for Capitalism

To understand the probable causes of the revolts led by Apolinario and Carrera, it is important to view the oppressive forces subjugating the respective communities. In the case of the Cofradía de San José, as mentioned earlier in the paper, the province of Tayabas was under different fiscal pressures from its neighboring provinces. The *cofradía*'s province was one of only two territories where tribute was still being collected in the form of commodities (the other being Ilocos), the *alcalde mayor* had been recently

militarized, and countrywide the weight of tribute had been standardized to 12 reales[8] (Fradera 1999) (1 peso was equal to 8 reales). That means despite the efforts of the colonial authorities to modernize the tributary system in the Philippines, in the province of Tayabas the tributary structure in place was still the old corruption-plagued system dominated by *alcaldes mayores* and *gobernadorcillos*. This background may have influenced the likelihood of people joining the brotherhood and supporting it. It even seems that neighboring provinces did not have either *gobernadorcillos* or parish priests:

> The authorities in Tayabas Province, and even those in the neighboring provinces of Laguna Batangas and Tondo, which did not have *gobernadorcillos* or parish priests—people who held so much influence among the natives—had not only remained loyal to the Supreme Government but even taken preemptive measures to defend the provincial capital and to capture Apolinario, dead or alive. (AHN 1842)

After independence from the Mexican Empire in 1823, the five states that previously made up the Kingdom of Guatemala formed a new independent nation called the United Provinces of Central America. The new Central American state became embroiled in a series of domestic political struggles involving the conservative and liberal parties. The conservative party was in favor of preserving the old institutions, privileges, and social leadership of the Catholic Church. The liberal party, inspired by political developments in the United States and the cultural influence of the British Empire, wanted to replace traditional Hispanic and indigenous institutions with those considered modern and civilizational, such as the privatization of means of production, separation of Church and state, and free trade. In the Guatemalan state, the political struggle between these two factions involved political intrigue and *coups d'etat* that eventually led to open hostilities as early as 1826. By 1831 the liberals were in a strong position, having gained the presidency of the state of Guatemala and the presidency of the federal government, under which ambitious liberal reforms took place. The main targets of the reforms were the Church and *ejido* lands, with the confiscation and auctioning of religious and indigenous communal property. The Guatemalan government raised the head tax to two pesos, "an amount sufficient to harass the Guatemalan peasant of the 1830s who operated principally in a barter economy" (Woodward 2008, 49).[9] Infrastructure works depended on Indian labor, a population regarded by the upper classes as indolent. Exemption from labor obligations required payment of the daily low wage; this was not possible for most work-

8) For David Sweet (1970, 98), however, the amount of tribute was 3 pesos, which was equal to 24 reales.

9) Head tax was the same form of taxation as in the recent past colonial regime, that is, indigenous tribute.

ers, making this kind of labor a forced one (Woodward 2008). The government sought to develop the countryside by extending land grants to Europeans willing to settle there (Griffith 2012). Liberals viewed this series of land measures as modern and civilizational, but the peasantry was instead further infuriated by the actions. It was in the midst of this turmoil that in 1837 Carrera made his entry into the scene.

Similar developments were taking place in the Philippines in the 1830s, but at a much slower speed. It was in the first half of the century that colonial authorities were seeking ways to improve and modernize the economy in capitalistic terms. In 1839 the Philippine Treasury lamented over the territory's trade imbalance, regretting that despite the territory's many natural resources, its advantageous geographical location in Asia—close to the Chinese Empire—and its wealth in lands and people, it was underperforming. A treasury official viewed this economic malaise as originating from the inhabitants of the colony:

> The causes of this malaise I already conveyed to His Majesty in the letter of January 28, No. 321. The main wealth of these islands is found in agriculture, and it finds itself being given to the tanned-skin caste of poor *indios*, who in every part of the world where they are found display apathy, sloth, and indifference to the comforts of life that are acquired through labor. This caste lacks capital and that active white caste that can guide them with the intelligence toward wealth and well-being. (AGI 1840b)

The official offered a solution for the economic difficulties of the islands: the protection of all foreign capitalists trying to establish themselves in the Philippines, particularly those that used their own capital and industry for the acquisition of land. From the same source, it is possible to see the 1834 request made by the president of the United States to the Spanish government for a royal permit for a businessman named Jonatan Willard Peel to establish himself in the Philippines to conduct commerce (AGI 1840b).[10)]

The Veneration of Saint Joseph: The Role of Religion in Peasant Violence

Various studies have made important contributions to the study of the Cofradía de San José, focusing on its religious aspects. Ikehata Setsuho used the activities of the Cofradía de San José as "a means of clarifying the nature of popular Catholicism in the Philippines

10) The source is significant because it clearly shows the racist attitude of Spanish officials toward the indigenous populations in 1840. It is important also because it shows the unfavorable economic conditions that the Philippines was perceived to be in compared with other foreign colonies, even Spain's own Cuba and Puerto Rico. To improve the economic performance of the islands, the Spanish official recommended capitalism and white immigration.

in the first half of the nineteenth century" (Ikehata 1990, 111). Reynaldo Ileto's *Pasyon and Revolution* used the readings of the passion of the Christ (specifically the *Pasyon Pilapil*) as understood by the masses as a means of understanding how the traditional mind operates. According to him, Catholic traditions such as Holy Week "fundamentally shaped the style of peasant brotherhoods and uprisings during Spanish and early American colonial periods" (Ileto 1979, 11). On Apolinario's uprising, Ileto notes:

> The events that culminated in the bloody revolt of 1841 was [*sic*] not simply a blind reaction to oppressive forces in colonial society; it was a conscious act of realizing certain possibilities of existence that the members were made conscious of through reflection upon certain mysteries and signs. (Ileto 1979, 30)

Notwithstanding the enormous impact of *Pasyon and Revolution* on Philippine historiography since its publication in 1979, Ileto's use of textual documents to understand the masses that revolted against their Spanish masters was convincingly put into question by Joseph Scalice, who argued that Ileto's ambiguously termed masses did not experience the *Pasyon* in written form but through singing (*pabasa*) and dramatic acting performances (*sinakulo*), which both the elites and lower members of Tagalog society participated in (Scalice 2018). For Scalice, sources other than the *Pasyon* or the *awit* (Tagalog verse) are needed to begin to understand the consciousness of peasants, day laborers, and members of the working class who played a role in the Philippine Revolution:

> We will not, however, learn from this reconstructed consciousness why the masses revolted to begin with. To address this latter question we must address the historical circumstances that shaped working-class and peasant consciousness and that made revolution an objective necessity for members of those groups. The Philippine Revolution emerged in the late nineteenth century from out of the dramatic transformations in the colony's economic and political life. (Scalice 2018, 50)

For David Sturtevant, among others, the Cofradía de San José's coalition of peasants and *principales* and its revolt confirmed Spanish fears by representing "the first coordinated religious rebellion in Philippine history" (Sturtevant 1976, 82). For Teodoro Agoncillo and Oscar Alfonso the motives behind the revolt led by Apolinario were also religious (Agoncillo and Alfonso 1960, 140), while for David Sweet the roots of the violence lay in a combination of discouraging the practice of traditional customs, combined with heavy taxes and labor, an increase in the economic importance of mestizos, and the "arbitrariness and a morality of the country clergy" (Sweet 1970, 114). When attempting to locate the factors that prompted the *cofradía*'s revolt, given what is discussed in this paper, Sweet's argument seems to be the most reasonable. As Juan Carlos Solórzano and Douglass Sullivan-González succinctly describe in their works on Carrera's peasant upris-

ing in Guatemala, indigenous and *ladino* peasants saw their economic, social, and religious institutions under threat from the modernizing forces being promoted by the state. For Apolinario's and Carrera's movements, religion became the unifying ideological motivation under which previously fragmented castes would join together as a community in defense of traditional peasant life (Solórzano 1987, 9; Sullivan-González 1998, 85). Thus, in the Philippines, the diverse members of Apolinario's movement became conscious of their common interests and under the ideological unifying banner of religion sought to defend themselves from the state's constraints and its intransigence toward freedom of assembly.

Likewise, in Guatemala a multiethnic and multi-class alliance formed; and a blend of "power politics and religion unique to Latin America in the 19th century" developed in Carrera's organized revolt (Sullivan-González 1998, 4). In both cases local priests played an important role as the most important nodes in local village networks, providing valuable moral support and guidance to the leaders while legitimizing the movements in the eyes of community members with their presence. Apolinario's adviser, Father Ciriaco de los Santos—who also managed the finances of the brotherhood as its treasurer—was the person through whom Apolinario met Don Domingo Rojas, a wealthy mestizo businessman. He counseled Apolinario to gain as many supporters as he could in order to force the authorities to approve the recognition of the *cofradía* or, if unsuccessful, to cut heads (*cortar cabezas*), in which case Apolinario and his friends were in danger (AHN 1842). This advice from Rojas probably made the tragic turn of events nearly unavoidable.

As in the case of the Cofradía de San José, members of the Church played key roles in Guatemala's peasant uprisings. The liberal government's anti-clerical policies forced many leading clergymen to live as exiles in Louisiana and Cuba and in the case of Father Mariano Durán led to death by firing squad. For Carrera, Father Francisco Aqueche played a very important role: not only was the latter the link through which Carrera would meet his wife, Petrona Carrera, daughter of a wealthy local man in Eastern Guatemala, but it was also he who convinced Carrera to accept the request by local peasants to lead them in revolt against the government. Carerra's forces managed to finally defeat their opponents, led by the president of the federation, Francisco Morazán, on March 19, 1840. The date was subsequently used not only to commemorate Carrera's important military victory but also as testament to the link between God's favor and the country, as the vicar general testified—for March 19 coincided with the festive day commemorating Saint Joseph (Sullivan-González 1998, 72).

The Regulatory Base of the *Cofradías*

The primary goal of Apolinario's brotherhood was to achieve official recognition for the Cofradía de San José. For this reason it is important to discuss the institution of *cofradías*. Apolinario and his followers believed that official recognition of the confraternity depended on the approval of either the ecclesiastical or secular authorities in the Philippines; they submitted applications at least four times to this end, meeting refusals every single time. The authorities at the Ministry of Justice in Madrid who in 1842 reviewed the confraternity's uprising the previous year (AHN 1842) advised the Audiencia of Manila to be vigilant of the governor's magistrates and the *alcaldes mayores* of all the provinces to enforce Law XXV, Title IV, Book I of the *Recopilación*, which regulates the establishment of *cofradías*. The law states that to

> establish *cofradias*, juntas, colleges, or councils of Spaniards, *indios*, blacks, mulattos, or other people of any condition or quality, even if the things and ends were pious and spiritual, precedes our licence and authority from Ecclesiastical Prelate and having been made the ordinances and statutes, be presented to the Royal Council of the Indies, so that in it, it be observed and dispensed with what is suitable . . . and if it were approved or confirmed, may not gather nor council, without the presence of any of our royal ministers, that by viceroy, president, or governor be named. (Paredes 1681)[11)]

The regulation concerning the establishment of *cofradías* in the Spanish Indies was much more restrictive than the regulation governing the provision of land. Land was to be distributed by governors, presidents, and viceroys, while religious brotherhoods needed the direct approval of the king himself through the Council of the Indies.[12)] This indicates how strongly the metropolitan authorities mistrusted autonomous religious groups as early as 1600, when the law was enacted. The mistrust of confraternities in Europe was widespread from medieval times: these pious organizations were seen as threats to both secular and ecclesiastical powers. The Church in Europe succeeded in bringing brotherhoods within its jurisdiction with the edicts of the Council of Trent (1545–63), while the state dealt with the threat posed by these organizations by suppressing them (Eisenbichler 2019, 1). In spite of the limitations imposed in the *Recopilación*, confraternities were widespread in the Spanish Indies: in the New Spanish capital, for instance, there were thousands of recognized confraternities by the eighteenth century and many

11) The law is titled "*Cofradías* may not be founded without license from the king, nor be gathered without the presence of magistrates and royal ministers."

12) The Council of the Indies was suppressed in 1836. During the time the brotherhood made its applications in 1840–41, the administration of the remaining colonies was the responsibility of the Overseas Government within the Secretary of State and Office of the Navy.

more unrecognized ones (MacLeod 2019, 281). By the last part of the eighteenth century and the beginning of the nineteenth, secular and religious authorities in New Spain were targeting confraternities, particularly their funds, and trying to abolish them (MacLeod 2019, 284).

Confraternities were means through which indigenous communities could preserve some autonomy and pre-Hispanic traditions, celebrate feasts, provide funeral assistance, aid in Christian conversion, and promote general solidarity in their communities. They also provided social status to their members, provided extra income for priests, and conferred exemptions from forced labor (Di Tella 1990). Some *cofradías*' holdings were also designed for "evading the exactions of church and state" (MacLeod 2019, 302). For instance, on June 29, 1773, an earthquake struck the seat of government of the Kingdom of Guatemala. Due to the destruction, government officials decided to transfer the capital to a new location, where the current capital—Guatemala City—still stands. Such an enterprise required a large number of indigenous laborers and the forced migration of *indios* from the central valley of Guatemala. Many resisted these measures by migrating to other pueblos, fleeing into the mountains, or refusing to pay tribute. Some "joined religious *cofradías* to be exempt from all low class labor" (Pedro Pérez Valenzuela 1934, quoted in Jones 1940, 11).

Conclusion

The Philippines' nineteenth-century peasant violence should not be treated as a local spontaneous reaction unconnected with wider events in other parts of the former Spanish world and beyond. Peasant violence is a reaction against the state's economic and political intrusiveness in peasant community livelihoods and should be seen as an act of resistance in the defense of the traditional peasant economy, organization, and traditions. Apolinario's confraternity, although religious in nature, was victim to a centralized and militarized colonial state, traumatized by the loss of its American colonies and obsessed with discovering and destroying any hint of a political movement for independence or a movement that might be used by third parties with independentist aims[13] (AHN 1842). The case of the Cofradía de San José represents more than the mere suppression of a

13) After investigating and analyzing all the evidence surrounding the *cofradía*'s revolt, government officials in Madrid concluded that there was no plot or conspiracy by the members of the brotherhood against the authorities or to make the islands independent. Their efforts were focused on the establishment of the confraternity. Additionally, the officials revealed that the members involved in the violence had indicated that they would not pay tribute (AHN 1842).

religious brotherhood. Its importance is that it represented the emergence of a modern civil society organization in colonial Philippines, tragically suppressed by an arbitrary regime afraid of reliving the traumatic events that had led to the loss of the American colonies.

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Intensification of Rice Cultivation in the Floodplain of the Chao Phraya Delta*

François Molle,** Chatchom Chompadist,*** and Thanawat Bremard**

Over the past 50 years rice cultivation in Asian deltas has undergone impressive intensification. In the Chao Phraya Delta, Thailand, traditional deepwater and floating rice varieties have gradually been replaced by high-yield varieties (HYVs). However, until recently a floodplain of 300,000 ha was still cultivated with traditional varieties. We analyze how these varieties came to be replaced by single/double cropping of HYVs and describe the new water regime that has been established, taking the Bang Kum drainage basin as an illustration. While the shift brought a welcome increase in rural incomes, we show how the change in water management has had serious negative cross-scale consequences that have not been considered. We end by discussing the government's plan to alter the water regime in the area again, as part of its "monkey cheek" (flood retarding) policy. We show that rather than enhancing management flexibility and the floodplain's buffering capacity, as it claims, this policy in fact undermines both.

Keywords: deepwater rice, rice cultivation, flood management, flood retarding basin, Chao Phraya Delta, Thailand

I Introduction

Asian deltas' landscapes and water regimes—most notably the Pearl River, the Red River, the Mekong, and the Chao Phraya River—have undergone spectacular historical transformations (Catling 1992; Tanaka 1995; Kono 2001; Molle and Dao Thê Tuân 2006; Biggs *et al.* 2009; Le Thuy Ngan *et al.* 2018; Nguyen Van Kien *et al.* 2019). The state and farmers alike have incessantly and relentlessly reshaped their waterscapes through the construction of dams, dikes, canals, drains, sluice gates, and pumps in order to reduce

* This article is dedicated to the late Professor Takaya and his colleagues from Kyoto University's Center for Southeast Asian Studies, who carried out seminal work on the Chao Phraya Delta in the 1970s and 1980s.

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the risk/variability and occurrence of flooding while enhancing the provision of irrigation water to fields. By doing so, they have allowed growth in cropping intensities as well as diversification away from rice to fruit and vegetables or aquaculture, in a typical Boserupian scenario of agricultural intensification (Boserup 1981).

In the Chao Phraya Delta, in central Thailand, considerable changes have taken place, particularly since the early land reclamation in the late nineteenth century and the establishment of irrigation networks in the 1960s and 1970s (Takaya 1986; Kasetsart University and ORSTOM 1996). Patterns of rice cultivation are extremely heterogeneous and combine contrasting cropping intensities (from one to three crops per year), gravity canal irrigation to semi-controlled flood regimes, and High Yield Varieties (HYVs) as well as floating rice cultivated in 3 m-deep waters (Kasetsart University and ORSTOM 1996). Around 2000 the delta had approximately 300,000 ha of flood-prone areas cultivated with "traditional" rice varieties (TVs) (Molle *et al.* 1999). Although well adapted to flooding, these varieties, and the associated floodwater regime, confined agriculture to a single annual crop with relatively low productivity, which constrained farming systems and farmers' livelihoods (Kaida 1974; Takaya 1986; Molle and Thippawal 1999).

Unlike the Mekong Delta, where flood-prone areas were gradually diked and protected from heavy floods for most of the year, the Chao Phraya floodplain remained under a semi-controlled water regime whereby the rise in flood level was attuned to the growth of traditional rice varieties. The latest in-depth study of the floodplain concluded that the area was trapped in low-productivity single cropping because it was impossible for managers to prevent these low-lying areas gathering large amounts of excess water during the (late) rainy season[1)] (Molle *et al.* 1999). Shifting to HYVs grown outside the flood period would also entail developing the land and irrigation infrastructures as well as increasing water supply at times when it was already insufficient. Any change was therefore deemed unlikely.

This article offers a historical retrospective of the transformations of the Chao Phraya floodplain, building upon seminal works by Takaya Yoshikazu (1986) and Molle *et al.* (1999; 2001b) on the intensification of rice cultivation in the different sub-ecosystems of the delta. Transformations in the past 20 years were studied based on Landsat and Sentinel images (available through the LandViewer platform), official documents and media releases, and visits to Royal Irrigation Department (RID) regional and local offices as well as to the floodplain itself in 2017–19. After each visit, the information from farmers, officials, and satellite images was triangulated in order to make sense of

1) The option of constructing large-scale pumping stations to remove that excess water into the river system, as practiced in the Red River Delta, for example, was considered economically unsound at this stage of the development of rice cultivation in Thailand.

transformation on the ground. The paper first provides some historical elements on early cultivation of the delta's floodplain and then describes the gradual shift from traditional deepwater rice cultivation to HYVs, ending with a final watershed transformation around 2010, unpacking the conditions that allowed for this unexpected transformation. To do so, we take the case of the low-lying area of Bang Kum, in Ayutthaya Province. But such a transformation must also be understood through its cross-scale consequences. We show that scaling up the new water management regime associated with the shift to the whole floodplain has crucial delta-wide implications for both dry-season and floodwater management. This provides a fascinating illustration of cross-scale and systemic feedback loops that are hard to anticipate when a coherent global understanding of the water regime is lacking. Finally, we show how an in-depth understanding of the water regime can serve to critically appraise the recent (and flawed) policy of exploiting the floodplain, once again, to mitigate flood intensity in the Chao Phraya Delta and the basin as a whole.

II The Floodplain Management System

II-1 *Early Cultivation in Flooded Areas of the Chao Phraya Delta*

The cultivation of rice in the floodplain of the Chao Phraya was described by travelers to Siam prior to the twentieth century, often with bewilderment. Pallegoix Mgr. (1976 [1852]) observed, "this river floods and submerges the plain once a year . . . at the end of August it spreads onto the countryside and rises up to one meter and sometimes more above the bank." All observers noted the random nature of such cultivation, which depended on the extent and duration of the flood, with Pallegoix expressing surprise that "there are some years in which the river floods only part of the plain . . . all the fields which the water cannot reach are lost." Likewise, as early as 1688 N. Gervaise remarked:

> [N]othing is feared more than drought, because it causes the price of rice to increase so much that a quantity that in a year of high rainfall would cost only six francs, in a dry year is worth twenty-nine or thirty francs.

Similar observations also prompted A. E. Stiven (1994 [1903]) to state that "the cultivators . . . are to a large extent at the mercy of the rains and floods. Excessive rain, however, does not cause so much anxiety to the farmers as excessive droughts."

Heavy flooding necessitated the use of floating rice varieties, that is, those that elongate rapidly as the water level rises. An early mention of floating rice appears in De la Loubère (1986 [1693]):

> [T]he Siamese do not reshape their land. They till it and sow it when the rains have sufficiently softened it, and they gather their harvest once the water has retreated, and sometimes while it remains and they can go only by boat. All the land that is overflowed is good for rice and it is said that the ear always rises above the water; and if the water rises a foot in twenty hours, the rice grows a foot in twenty-four hours.

Details of the flood regime in the Chao Phraya Delta prior to the construction of the Bhumibol (1964) and Sirikit (1974) Dams are not known. However, the entire delta was cultivated with TVs—a term that refers to photosensitive varieties with long stems (0.5 to 1 m for "deepwater rice" and up to 4 m for "floating rice") and cycle durations (between five and nine months) (Tanabe 1980; Takaya 1986). A map from 1950 (Fig. 1) shows that flooding occurred annually in most of the delta, with the exception of the levees around

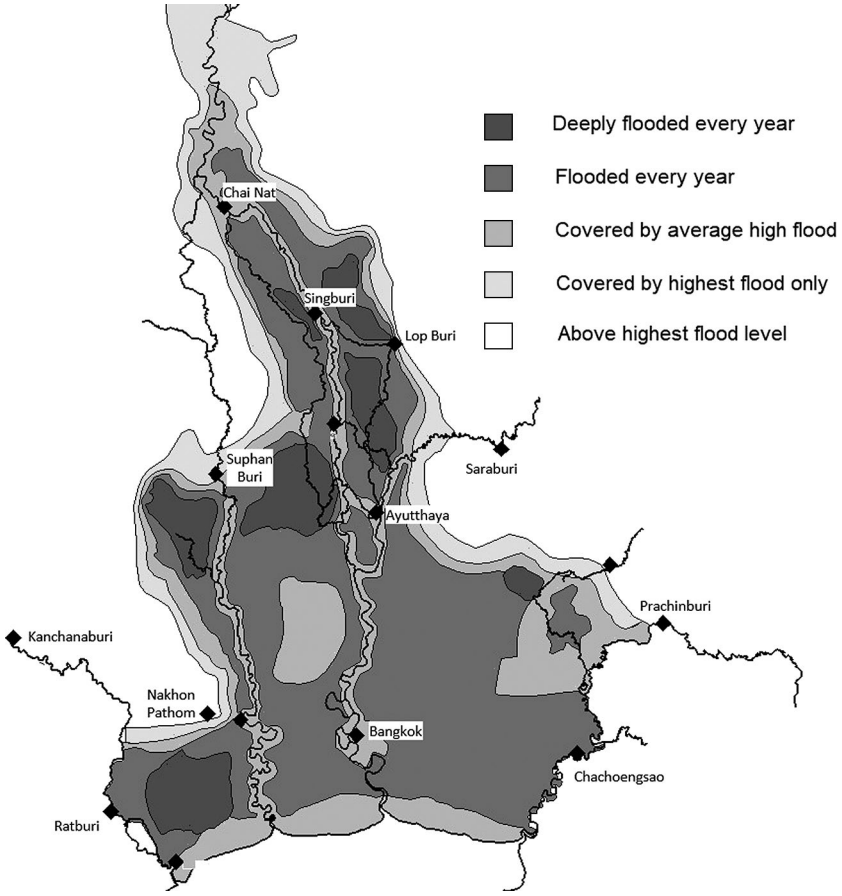

Fig. 1 Flood Zoning in the Late 1940s

Source: Thailand, Ministry of Agriculture (1950).

the river and main canals, the coastal zone, and a few higher-elevation areas.

II-2 *The Greater Chao Phraya Irrigation Scheme of the 1960s and 1970s*

The water regime in the Chao Phraya Delta has been in a state of constant change over the last 60 years, in line with gradual land development and the "artificialization" of the natural landscape and hydrological regime. The introduction of the Greater Chao Phraya irrigation scheme in the 1960s and 1970s saw irrigation canals built on the natural levees bordering the waterways and water controls increased on the higher land served by these canals (Small 1972), enabling double cropping.

However, low-lying areas in the upper delta remained vulnerable to flooding caused by a combination of excess flow from the river system, streams originating on the sides of the delta, return flows from higher irrigated land, and local rainfall. To better regulate the flood pattern in terms of height and duration, dikes were built around the (lower) part of these "drainage boxes" (Molle *et al.* 1999) with regulated outlets to the rivers. (Fig. 2 shows the general structure of a drainage box.) In the 1970s, most of the floodways through which the Chao Phraya River could spread into low-lying areas were gated and closed. Following the floods of 1975, for example, the embankments were raised 50 cm above the flood level. By the late 1980s, around 500,000 ha of traditional rice varieties were still cultivated in the Chao Phraya Delta (Puckridge *et al.* 2000).

Thus, a system of 20 main drainage boxes was gradually constructed and improved in the upper delta. (Fig. 3 shows the name and main outlet of each of these boxes.) It allows water to accumulate within the boxes to a suitable height and retains it at that level until the rice ripens, at which point it is drained for harvesting. This takes place in December or January, depending on the box, once the water level in the river system outside the boxes has subsided, allowing water to be drained by gravity. The drainage rate depends on the box (topography, design of outlet sluices, rice variety, etc.). If there is a single variety, quick drainage is required for harvesting. Where there are several, those growing lower down usually need water for a few days longer and the drainage rate is slower. The rate also depends on downstream conditions in the river. These are affected by the inflow into the delta and the drainage of other boxes. Fig. 4 shows the drainage curves of the three regulators located on Khlong Bang Phra Khru draining the Bang Kum box following the opening of the gates around December 12. We see that the upstream regulators raise the water level, delaying the drainage of those farther downstream.[2)]

While boxes allow a degree of control, risk is not fully eliminated. High inflow can

2) Note the tidal effect on Khlong Bang Phra Khru, located 15 km upstream of Ayutthaya.

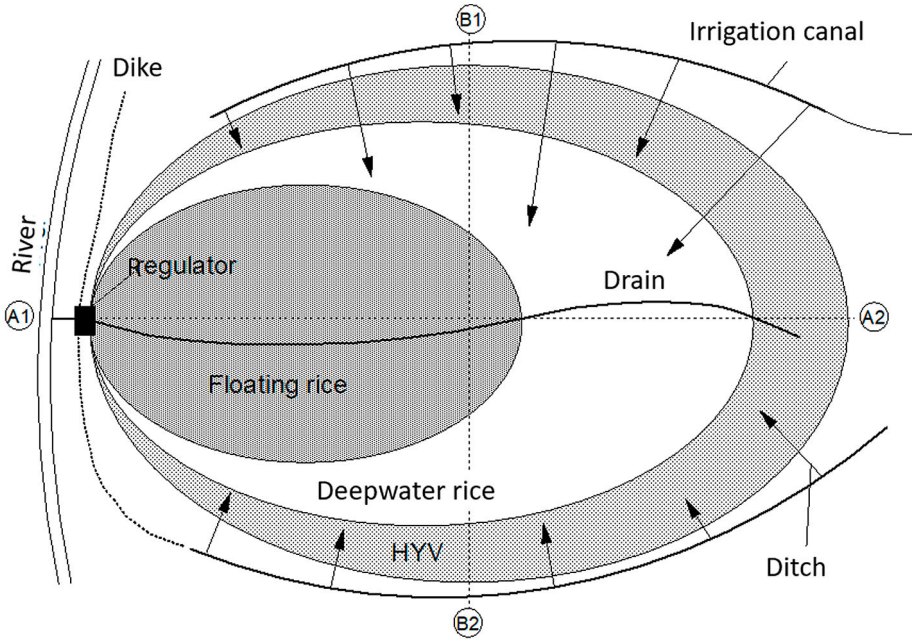

Fig. 2 Schematic Diagram of a Drainage Box

Source: Molle *et al.* (1999).

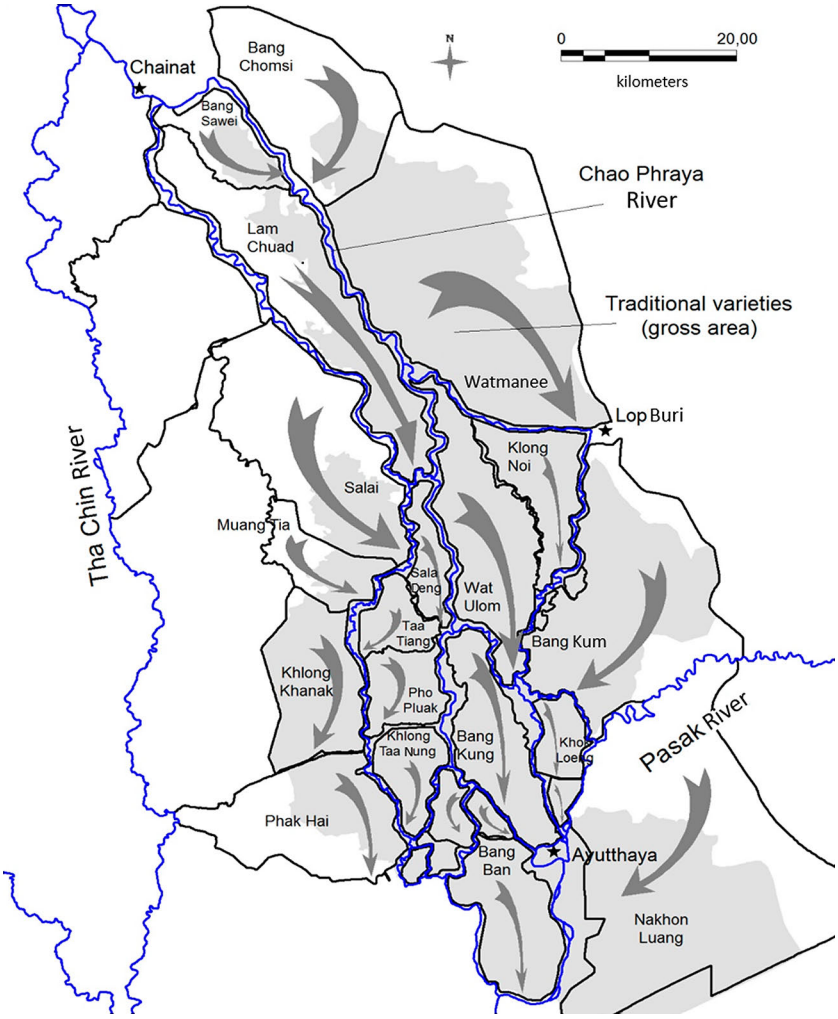

Fig. 3 Main Drainage Boxes in the Chao Phraya Delta
Source: adapted from Molle *et al.* (1999).

exceed the drainage capacity of the boxes, leading water to rise above normal levels and submerging some deepwater rice varieties. If the inflow is too weak, it can cause the water level to rise too slowly or not high enough. A delay in draining the box can force farmers to harvest their rice by boat. Higher land tends not to flood and can be irrigated by canals and cultivated with HYVs. Depending on the year, location, and water availability it can even be double-cropped.

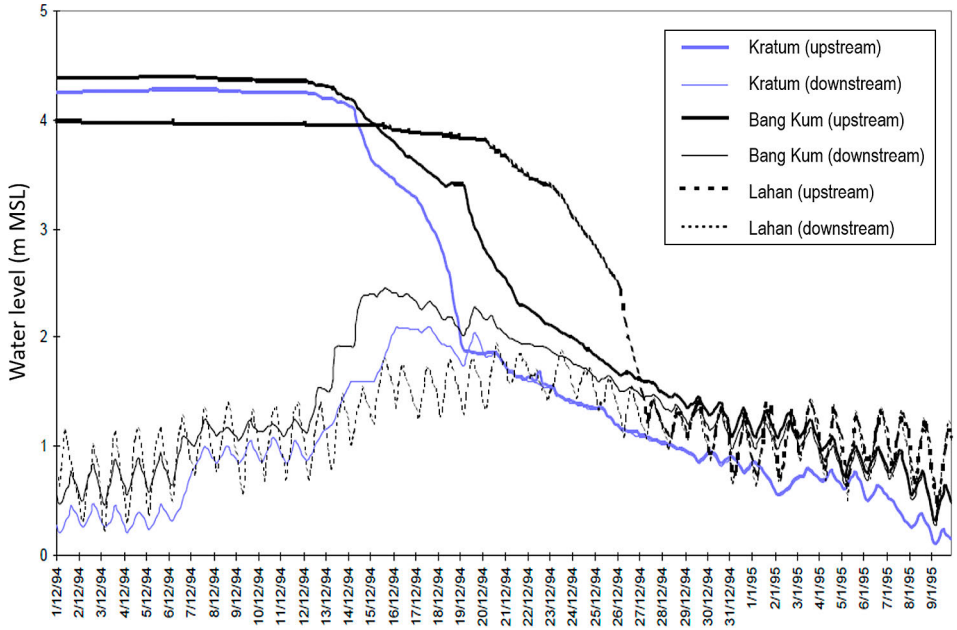

Fig. 4 Drainage of the Bang Kum Box 1994–95 (Three Outlets)

III The Wholesale Shift from Traditional Rice Varieties to HYVs

III-1 *The First Wave of Change*

The construction of the Bhumibol and Sirikit Dams, as well as the development of smaller dams and diversion works in the upper and middle sections of the Chao Phraya basin, decreased the intensity of flooding (see Molle *et al.* 2001a; Tebakari *et al.* 2003). This first manifested itself in the lower delta, where flooding was on average far less severe. Farmers in the upper half of the West Bank (Chao Chet Bang Yihon and Phraya Banlue Projects) found that they could afford to partly protect their fields from flooding by building dikes. Raised road embankments also helped to polder fields from the many waterways that crisscross the West Bank (Takaya 1986; JICA 1992). Where the risk was too high, calendars would be shifted in order to cultivate before and after the flood period. In the West Bank, but also in the East Bank, these changes led to the disappearance of TVs (Tanabe 1980). The availability of water during the dry season (from the Chao Phraya Dam and pumping from adjacent rivers) enabled farmers not only to shift to more productive HYVs but also to double-crop their fields, with substantial economic gains.

In the late 1980s improved water control in the Mae Klong basin[3] also reduced flooding along the Song Phi Nong River, which marks the divide between the Mae Klong alluvial fan and the paddy fields of Suphan Buri to the west of the Chao Phraya Delta. While Song Phi Nong used to be famous for its semi-aquatic lifestyle, with locals living on the first floor of their houses and using boats during the flood period (see Sumet 1988), farmers found that the reduction in flooding meant they could grow one HYV before the flood and another after, as in the West Bank.

From the mid-1980s to the end of the 1990s, several drainage boxes of the upper delta underwent similar changes in their regulation (Molle and Jesda 1998). First, the level was reduced in the flood period as the intensity of flooding appeared to lessen, due to an overall decline in inflow and the development of intermediate cross-regulators on the boxes' main drains that allowed greater, stepwise control of the water. The development of on-farm infrastructure on the high lands gave better access to irrigation water from canals, and the spread of individual axial pumps allowed farmers to tap low water from canals, drains, and rivers, facilitating the cultivation of HYVs, which in turn required a lower water level in the box (Molle *et al.* 2001a).

Second, the target water level at the end of the draining of the box and the beginning of the dry season was increased. As fishing was an important complement to local livelihoods, in the past the boxes were fully drained in order to catch fish more easily in the depressions. However, the target regulation level was raised as dikes were built along both sides of the box main drains, where the remaining water could be stored for use in gardening in the villages or the cultivation of nearby fields, and also perhaps as a result of reduced interest in fishing. Changes in regulation were quite substantial in boxes such as Lam Chuad (from 4 m to 5.5 m), Watmanee (2.3 m to 4.5 m), and Sala Deng (2.5 m to 3 m) (Molle *et al.* 1999).

But shifting from TVs to the double cropping of HYVs on higher land that is no longer flooded comes with two preconditions: first, the terrain must be leveled and supplied by a water distribution network, where previously floodwater was simply spread across uneven land. This on-farm investment—shouldered by farmers—was facilitated by the ever-cheaper cost of earth-moving machinery and service. Second, irrigation water must be provided by the RID, especially for the second (post-flood) crop that will grow in the dry season, with hardly any rainfall, although in some boxes farmers resort primarily to local resources, including rivers. Water supply depends on the capacity/willingness of the RID to provide water, but farmers have understood that starting cultivation as soon as possible after the flood (sometimes even draining their individual

3) Notably with the construction of two large storage dams.

plot by pumping in order to start land preparation early) has two advantages. First, they benefit from the residual soil wetness and water stored in the canals; and second, it compels the RID to supply them with water in the latter stages of cultivation, as the sight of drying paddy fields in media releases is considered unpalatable.

III-2 *The Conversion of Drainage Boxes*

Despite the transformations discussed above and the overall decrease in the regulated water level in the boxes, by the turn of the century TVs in the delta still occupied around 300,000 ha (Molle *et al.* 1999). It was, then, hardly envisioned that this remaining flooded land could be converted to HYV double cropping. On the one hand, excess water (from local rainfall, lateral drains entering the delta, return flows from irrigated areas) had to go somewhere, and when the rivers rose to high levels they could not be drained out of the boxes (in the absence of pump stations). On the other hand, the RID was loath to see the demand for dry-season water increase when the supply could irrigate, on average, only around half the delta (Molle *et al.* 2001a). Yet, despite these limitations, most boxes saw their rice patterns transformed around 2010.[4] Below, this is illustrated by the case of the Bang Kum drainage box (BKB).

The BKB covers around 83,000 *rai*, of which 38,000 belong to the Roeng Rang Project and 45,000 to the Kok Katiem Project. Administratively the BKB comprises 22 *tambon* (subdistricts) belonging to three provinces (Lop Buri, Ayutthaya, and Saraburi) (RID 2018) (see Fig. 5). Ninety percent of the land is used for rice and the rest for taro, other crops, fishponds, small-scale factories, government buildings, temples, and residential areas (RID 2010). The land elevation in the BKB averages 2.9 m (above mean sea level), varying between +2.7 m and +3.2 m (RID 2010).

At least in the BKB's lower parts, farmers have been limited by the floodwater regime. Although this regime was regulated, as described above, and therefore afforded a degree of predictability and stabilization of production, yields remained low, at an average of 35 *thang* (0.35 tons) per *rai*. The main varieties included the Khao Tah Heng and Pin Kaew 56 (floating rice) varieties (Molle *et al.* 1999). Farming system analysis in the village of Ban Nong Mon (Molle *et al.* 2001b) in the heart of the box in 2000 revealed in particular low rice productivity and limited diversification, as well as many absent villagers renting their land to relatives or other villagers, fewer children (due to a lack of economic prospects), a high rate of emigration, and significant off-farm income. A comparison with two other villages, one in Lop Buri Province and the other in Suphan Buri Province, with cropping intensities of 1.45 and 2.9 respectively, showed that the average

4) The generalization of the shift observed in Bang Kum to the whole floodplain was confirmed by satellite images and visits to six different boxes.

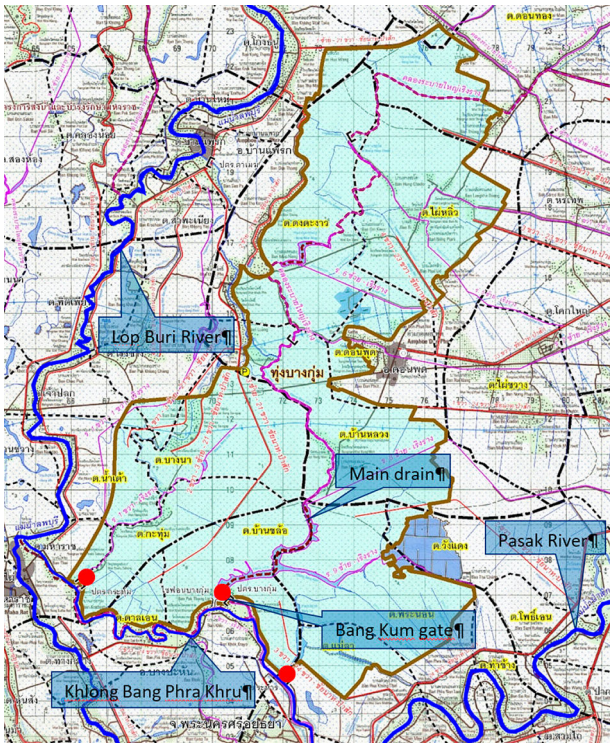

Fig. 5 Bang Kum Drainage Box (BKB), with Regulated Outlets (Round Circles Points)
Source: RID (2018).

net income of 822 baht/*rai* observed in Bang Kum was much lower than the values observed in the other two villages, 2,560 baht/*rai* and 7,195 baht/*rai* respectively. Although this stark per *rai* productivity gap was partly bridged at the household level because Bang Kum had smaller families, larger farms, and a higher reliance on non-cropping activities, off-farm work, and remittances, the per capita income in Suphan Buri remained twice as high as in Bang Kum (yet remarkably far from the initial ratio in land productivity, which was close to 8). This confirmed that environmental constraints to intensification resulted in lower household incomes.

In the late 1990s the RID and provincial services attempted to develop secondary local water resources so farmers could grow a second crop of rice in the dry season, just after harvesting. They excavated ponds surrounded by huge dikes in the lower part of the boxes, but this did not lead to double cropping as the second crop faced three obstacles (Wuttitchai 2000): the limited time window (January to April), which could be reduced by a late flood recession; the need to pump water over high dikes (incurring costs); and the need for collective action (farmers starting alone would see their crops devastated

by rats, which had little to feed on in the dry season).

As in the cases of the Upper West Bank and Phak Hai Project, the overall average decline in floodwater inflow during the rainy season became increasingly evident in the BKB, where the target water level was reduced from 4.8 m to 4.5 m in the early 1990s, allowing higher plots to avoid flooding and grow HYVs with water from irrigation canals. In 1995 two farmers from Ban Nong Mon in the BKB attempted dry-season cropping of HYVs but had their fields overrun by rats, followed by flooding. A farmer leader's attempt at dry-season cropping met with success in 1997—but his fields were located on the higher fringe of the BKB, so he could get irrigation water from the canal.

Collective action was initiated in the 2000s toward a radical, box-wide change in water regulation and rice-cropping patterns. In 2002 a group of farmers in the lower BKB invested 2.8 million baht of their own savings to dig nine ditches with parallel dirt roads, and collectively organized the water management (RID 2010). Their initiative was rewarded with 22.5 million baht from a bumper rice crop that year. The success led them to form a Water User Group consisting of 84 members with 4,700 *rai*. They invited government agencies from various sectors to discuss abandoning flood-season rice cropping of TVs in favor of the double cropping of HYVs—one crop before the flood and a second after it.[5] The RID backed the initiative. Pressure for change mounted when rice cropping became extremely attractive, as the government took to subsidizing production. In 2008–13 the average farm gate price reached 9.6 baht/kilo against a commonplace value of 6–7 baht (OAE, various years).[6] If we take the total cost of production of one *rai* of HYV at 3,600 baht (Stuart *et al.* 2018) and a yield of 0.85 tons, this hike actually represents an increase in net income by a factor of 2.4.

Neighboring farmers in one area would come together to build a channel to their plots. However, on land that sloped gently toward the central drain, higher plots were hard to reach. Farmers would either have to build two or more consecutive reaches, pumping water from the lower to the higher in stages, or raise the water level from below by operating the gate accordingly. But the latter would cause low-lying plots near the drain to flood, and indeed conflict arose between the owners of low- and high-lying plots (RID 2018, 36–37). Low-lying plots were surrounded with higher bunds to allow a target water level in the box of +3 m so water could penetrate inland through networks of ditches dug by farmers. In order to reach higher land, the target level was gradually increased to +3.2 m once lowland farmers had improved their plot bunds and roads and

5) Those who helped mediate the process included a former director general of the Department of Agricultural Extension and a head of district with political support.

6) The reasons for this sharp increase in rice prices are beyond the scope of this paper. For further details, see Ricks (2018).

dikes had been raised and strengthened.

The draining of the box was also contentious, as growers of TVs harvested their crops in late December/January, thereby sometimes delaying the sowing period for the farmers of HYV rice to late January or mid-February. The RID attempted to resolve disputes by holding meetings for farmers to convince the TV growers of the benefits of shifting to two HYV crops and "do[ing] away with old farming habits" (RID 2010, 3–10). It was finally agreed, and in 2010 the RID altered the water regime, replicating what had just occurred in the Watmanee box in the same Kok Katiem Project.

The shift to double cropping entailed a redefinition of the flood-management regime as it had been practiced over previous decades. During the flood period the BKB would now be drained as allowed by the water level in the downstream Khlong Bang Phra Khru (Fig. 5). When the level rose in that canal (which connects the Lop Buri and Pasak Rivers and therefore reflects their respective water levels and flow conditions), the gates would be closed and water would accumulate in the box. There would be no specific attempt to store water, but—as during Phase II—if need be, water could be stored up to 4.5–4.8 m without disrupting local life. As soon as river levels downstream allowed, the gates would be reopened and water drained out of the box. Some years this could be done as early as November, allowing the post-flood crop to be established early, thus maximizing the chances of a second crop the following spring.

However attractive on paper, the new dynamic was not without its limitations, as mentioned earlier with regard to higher-elevation land. TVs were cultivated on rough and uneven ground that was ploughed and sown only after the first rains, usually in April or May. Neither the early rain-fed growth nor the later flooded stages required particular land leveling. But the cultivation of HYVs required investment in farm infrastructure, such as that undertaken by the 84 farmers of the BKB in 2002. This included access roads, plot leveling, and bunds and a network of channels to convey water to inland plots from the low-lying drains and depressions where it was stored.

Despite these investments, eased by the availability of machinery or the possibility of using their four-wheel tractors to grade the land, farmers quickly harvested the benefits of the transformation. From a low benefit estimated at around 1,400 baht/*rai* for traditional varieties, the double cropping of HYVs yielded[7] the handsome sum of 9,100 baht/*rai* to those who managed to double-crop (for a price of 9.6 baht/ton).

III-3 *The "Monkey Cheek" Project and the Requalification of Flood Management*

On September 20, 2016 Deputy Prime Minister Gen. Chatchai Sarikulya endorsed—as

7) Not accounting for the investments made in on-farm development.

earlier governments had—the "monkey cheek" (*kaem ling*) policy, by embracing the use of low-lying land as a buffer at times of flooding (Thanaporn 2018). The move was likely prompted by a very late rice harvest in 2016, which prevented the boxes from being used and shifted the excess flow to the main stem of the Chao Phraya River, damaging houses in Ayutthaya (*Bangkok Post*, October 11, 2016; RID 2016). Gen. Chatchai Sarikulya issued a ruling that established a cropping calendar intended to accelerate crop establishment and harvesting in 13 areas, termed "monkey cheeks," in the Chao Phraya basin, including the BKB.[8] The new cropping pattern was trialed in 2017, and on May 1 the RID began distributing water for rice cultivation in the 12 monkey cheeks located in the delta (1.15 million *rai*). The plots were harvested in August and early September before the land was purposely flooded (officially on September 15) so as to store water in line with the new policy. Once filled, the drainage boxes were drained at the beginning of December (officially on December 1).

The shift from the management regime of the early 2010s brought several changes. While still aimed at enabling two crops of rice, it required more formal planning of the cropping calendars within the box so that cultivation (before September 15) and flood mitigation (after September 15) did not conflict. It also required the box to be filled to its full capacity and enforced a no-cultivation period of 2.5 months to allow for fishing. In exchange, the RID committed to sending water in both early May (so harvesting could take place before the flood) and the dry season (from the beginning of November once the flood had receded), while farmers would be compensated if their crops were damaged by an early flood in August.

IV Management and Technical Complexities of Rice-Water Relationship

The changes described in the preceding section allow us to identify four main phases in the development and management of the floodplain. These are summarized in Table 1. Each of these phases corresponds to a major shift in the water management regime. The water regime established around 2010 (Phase III), briefly described above, allowed a spectacular shift from one TV to one or, increasingly often,[9] two HYVs. However, the new regime was complicated by a dependence on hydrological conditions both locally and

8) Twelve were situated in the middle and lower basin, the Bang Rakam low-lying land being the only one located in the upper basin (Sukhothai and Phitsanulok Provinces). Bang Rakam served as a pilot area for this policy, which is sometimes said to follow the Bang Rakam Model (Thanaporn 2018; Voogd 2019).

9) As on-farm infrastructure was improved.

Table 1 Main Phases in Floodplain Management

Approximate Phases	Main Features
Phase I: Before~1975	Uncontrolled strong flooding, deepwater and floating rice adjusted to the water regime, very limited HYV on highlands
Phase II: 1975–2010	Controlled flooding in the drainage boxes, lowering of the target level, expansion of HYV on highlands
Phase III: 2010–17	Abandonment of traditional varieties, (single or) double cropping of HYV (before and after the flood)
Phase IV: 2017 and after	*Kaem ling* formal policy, with fixed calendars for filling and draining 13 drainage boxes, priority given to these areas in the dry season

in the upstream areas where the flows that traverse the delta originate. Enhancing local benefits made it necessary to reshuffle the water regime, but this created disbenefits in other parts of the delta. We first examine how such negative externalities were created and later turn to briefly analyzing the most recent promotion of the *kaem ling* policy (Phase IV) (subsection IV-3).

IV-1 *Juggling Water and Time*

Under optimal conditions, that is, in a year not hampered by excessive flooding in the wet season or water shortage in the dry season, this new regime (Phase III) in the BKB could be described as follows: during the potential flood period, typically mid-September to mid-November, water would either be drained or stored when downstream river conditions did not allow drainage. There was no need to store a specific amount of water above that required for the next cultivation season thanks to that stored in the drain, at a set level of around 3.2 m above mean sea level. The duration of the flood period in the BKB depended on a combination of local rainfall, sideflows, and possible excess water in the delta (relieved by diverting water to drainage boxes[10]), as well as whether the water levels farther down the river needed the BKB outlets to be fully closed.

As the water receded, sometime in mid-November to December,[11] the box would be partially emptied. Farmers would then begin preparing the land without delay on soil still saturated with water, which facilitated ploughing and puddling, and saving the water needed to soak the soil before these operations.[12]

However, with rice gradually established across the BKB and irrigated with water stored between the dikes of the main drains, the available levels quickly declined. The extent to which crops can be established (particularly on higher ground, far from the

10) In the BKB this could be done by allowing water from the Lop Buri River to enter at Tha Mek gate or by releases from the Chai Nat-Pasak Canal to drains and canals.
11) Or as late as January in years of exceptional flooding.
12) Considered as typically requiring 250 mm of water when the soil is dry.

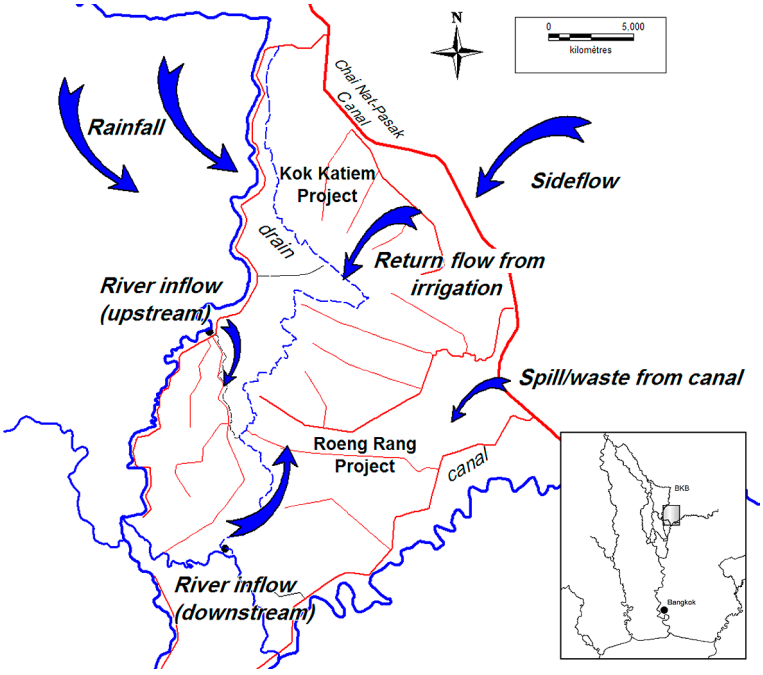

Fig. 6 Inflows to the BKB

Source: Molle *et al.* (1999).

central drain), and the time taken for this, thus depend on additional supply, which can come from several sources (Fig. 6):

1. Released from Chai Nat-Pasak feeder canal by the RID through secondary canals or drains to supply the BKB
2. Pumped from the Lop Buri River and Khlong Bang Phra Khru to meet irrigation needs, including permanent pumps set up by subdistricts or farmers themselves, and mobile RID pumps in case of crisis
3. Local storage either in excavated natural ponds (*bung*) or dug reservoirs, both of which can be fairly large in certain boxes, such as Lam Chuad and Wat Ulom. In the BKB the army has recently excavated a buffer reservoir with local funding.
4. Return flow from the higher areas in the Roeng Rang and Kok Katiem Projects that receive canal water and irrigate by gravity (from both canal tail-ends and the drainage system), but these areas generally receive water later (and may be allocated very limited water, depending on the year).

Fig. 7 Farmers Collectively Pumping the Remaining Water in the BKB Main Drain (2015) (Khun Somboon, Ban Nong Mon)

A major consequence of the new regime that must be emphasized is that by allowing farmers in the box to forego their TV and cultivate after the flood recedes, the RID has implicitly put itself in the position of having to ensure supply to the area once local resources are exhausted. Since the overall availability of water—at the basin or delta level—is very limited in the dry season, and although the BKB partly grows its post-flood crop based on local water resources, this creates added competition between upstream highland farmers (who receive water by gravity through the canal system) and lowland farmers in the box.

Indeed, the optimistic planting of rice after the flood can be confronted by a lack of water toward the middle or end of the cycle. This leads to desperate measures on the part of farmers, as in the BKB in 2015, when 40 pumps were pooled to extract water from the bottom of the BKB main drain[13] (see Fig. 7), compelling the RID to find ways to support paddy fields in want of water so as to avoid damaging media coverage of withering crops. (This included pumping water from the Lop Buri River and Khlong Bang Phra Khru [see Fig. 5] with mobile pumps and allowing extra releases from the Chao Phraya Dam.) But losses in yield are not always preventable: in March 2016, 400,000 *rai* were damaged in the delta.[14]

Therefore, in 2019 and again in 2020, low or uncertain stocks led the RID to announce at the beginning of the year that farmers should not cultivate dry-season crops, as the

13) The operation was conducted at high tide, when the water level would rise, since the tidal effect could be felt as far as the BKB.

14) ThaiVisa (2016).

water supply could not be assured. The move was intended to renounce responsibility and prevent any criticism of the RID should crops fail. Yet, despite the warnings there were reduced yields and even crop loss, demonstrating that in practice it is not possible to prevent farmers from embarking on cultivation if they have access to water.

Around three to four months after sowing, depending on the rice variety used and access to water,[15] fields in the box are drained in order to allow mechanical harvesters to operate. Farmers in the higher parts of the box, who have to pump water from below to irrigate (unless it reaches them from above, through the canal system), now benefit from their plot's position and drain by gravity. Conversely, farmers on lower land—below the regulation level of 3.2 m—who can get water from the main drain into their plot by gravity sometimes need to pump water out. All such operations are carried out using mobile axial pumps generally powered by two-wheel tractors. It is possible for managers to lower the regulation level (say from 3.2 m to 1.5 m in a week) so all the fields can be drained by gravity, including the lowest. Once this is done, in a matter of days the gates are closed again to allow the water level to recover so that farmers can begin their second crop.

In May, therefore, farmers are eager to embark on a second HYV crop. However, this also may face water shortages, since there is little flow from upstream plots and the rainy season water delivery is only slowly beginning in the basin; the latter can be delayed if rainfall is late and upstream storage dams are depleted. In addition, Roeng Rang Project is fourth in line on the Chai Nat-Pasak Canal, and it takes time before it can receive and divert its full share. Water supply can be enhanced by two natural sources, but these are unpredictable:

5. Local rainfall, which can vary widely at the beginning of the rainy season
6. Rainfall in the rain-fed areas of Saraburi and Lop Buri Provinces, which generates sideflows that traverse the Chai Nat-Pasak Canal through siphons and then the Kok Katiem and Roeng Rang Projects to feed their drainage system and the BKB

As the rainy season unfolds, more water is diverted to both the highlands and the box, the latter also benefiting from the return flow of the former (sources 1 and 4 above). Irregularity in the total supply combined with the nature of the plot (topography, elevation, distance from water sources, etc.) governs two things: whether a particular farmer in the box decides to grow a second crop or not, and when he will be able to do so. Low-

15) Depending on their location, plots may have access to the drain, the irrigation canal, the rivers, and possibly a reservoir, or a combination of these sources. This dictates when a plot will start cultivation —from early if close to the main drain, to late if only canal water is accessible.

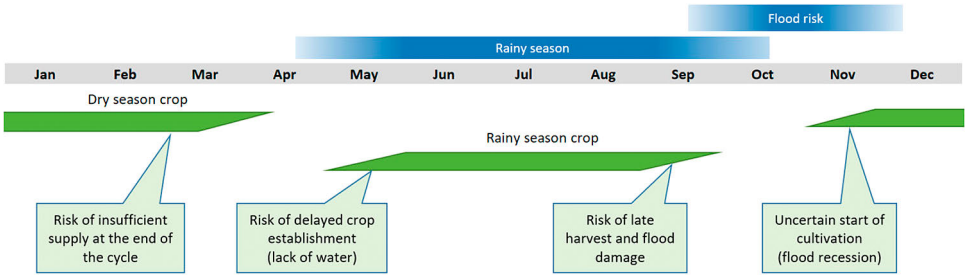

Fig. 8 Cropping Calendars in the BKB and the Issues Faced (Phase IIII)

land farmers facing limited water supply in April–May may wait for supply to increase later in the rainy season, but the issue then is timing: those sowing their crop, say, at the beginning of June would have to harvest it after mid-September and face the risk of flooding, meaning that some forego cultivation. This creates the counterintuitive scenario of some farmers in the BKB no longer growing rice in the rainy season (Fig. 8).

Storage is almost always low by the end of the dry season. Indeed, in April 2019 the deputy PM revealed that 23 large reservoirs were below 50 percent of their total water capacity due to releases made to "meet the high water demands in the [Chao Phraya] basin during the rest of the dry season" (Pratch 2019). And the situation can be dramatic if dam storage is extremely low. It can severely delay the establishment of the main crop, meaning the crop cannot be fully harvested if floods arrive in October (or earlier). This was precisely the case in 2016, which followed a year of very limited inflow in 2015 compounded by excessive releases in the dry season and minimal rainfall and runoff at the beginning of the rainy season. By the end of September 750,000 *rai* had not yet been harvested,[16] and the RID delayed the sending of excess water to drainage boxes, creating tension with the governor of Ayutthaya, who demanded that pressure be relieved for those living outside the dikes.[17]

Served by gravity irrigation canals, higher land faces a different set of constraints and a different calendar. Here farmers usually start rainy-season cultivation in June or even later, harvest after the main rainy period, and await supply from the RID in January or later to grow a second crop.[18] This crop is therefore conditional upon water avail-

16) *Bangkok Post* (October 11, 2016).
17) Apinya and Sunthorn (2016).
18) Observations in the field, however, suggest a more complex—and sometimes mind-boggling—pattern, since it is not rare to observe neighboring paddy fields at all stages of cultivation. This can be explained by the heterogeneity in topography, water access (proximity to canals, drains, natural streams or ponds, local reservoirs, etc.), and farmers' strategies.

ability in the delta and Chao Phraya basin.[19] Return flow benefiting BKB farmers also depends on the extent and timing of double cropping upstream. Such contingencies can be alleviated by growing shorter-term rice varieties (between 85 and 105 days) or exploiting local reserves (private or public ponds and reservoirs). But a 2,000-*rai* area located at the end of Kok Katiem's Canal 21, which follows the left bank of the Lop Buri River and ends up in the BKB, illustrates the issues. The downstream fields receive water very late in the dry season (as upstream farms abstract water from the canal first and also because priority is given to BKB lowlanders), and therefore they are commonly not harvested until the end of June. Since the risk of flooding is high, farmers here prefer to use traditional varieties (deepwater rice) for the ensuing wet season. Hence, the shift from TV to HYV in the lowlands, and the priority lowlands were given, limited the supply and delayed delivery to an area that had to go back to TV in the rainy season!

This detailed description of the constraints on growing two crops in the BKB (summarized in Fig. 8) serves to show that intensification (a shift from TV to HYV and from one to two crops) comes with a higher risk in a context where the control of water flows remains partial.

IV-2 *Impact of Phase III on Land and Water Resource Use*

The shift in rice cultivation observed in the BKB brought a radical leap in land productivity. The average output per hectare grew from 1–2 tons in the 1990s to up to 10 tons where two crops could be grown. However, this came at the cost of more chemicals sprayed on fields that had once received only natural silt. On the other hand, the creation of an almost permanent wetland in the box bottom boosted fish stocks and attracted a spectacularly high number of birds that preyed on fish.

In the Roeng Rang and Kok Katiem Projects the shift has substantially increased the efficiency of water use since return flows from higher land are collected by the drainage system and reused in the BKB. Gates remain closed most of the year, and this is particularly clear in the dry season, when no water is lost (with even some inflow gathered at high tide). In the rainy season water efficiency is less of an issue since natural runoff generally exceeds agricultural demand. Reservoirs excavated in the box capture some wet-season water to be used during the dry season and therefore also raise water use efficiency.

19) Historically the cropping intensity in the delta in the dry season has been around 50 percent (see Molle *et al.* 2001a), but in recent years double cropping has become more frequent in the basin as a whole (higher runoff) and in Roeng Rang and Kok Katiem Projects in particular.

Effective communication increases efficiency too. The RID organizes one or two meetings a year (attended by 200–300 farmers from eight *amphoe*/districts) in Don Phut, in the middle of the BKB, to agree on cropping calendars and regulatory targets. RID staff also visit local authorities to coordinate the communication of the new water management approach to communities. This includes the use of the mobile phone application Line, via which farmers are informed of the daily water level at key locations.[20)]

Since the RID gave all farmers in the Roeng Rang and Kok Katiem Projects the opportunity to double-crop, they have been able to increase their income (see subsection III-2). However, at a wider level, that of the basin, this agricultural intensification is highly problematic. By allowing the shift in farming practices across the whole delta's floodplain, the RID substantially increased the overall water demand in the dry season. With more diversions to irrigation projects and no return flow to the river system, less water is available to sustain the river flow and, eventually, the Chao Phraya River at its estuary.[21)] The growing abstraction of water from Khlong Bang Phra Khru and the Lop Buri River (and elsewhere from the Noi and Tha Chin Rivers) has also reduced river flows. All this worsens the chronic problem of saline water intrusion that periodically affects the lower delta in dry years (and threatens, for example, durian and other fruit orchards in Nonthaburi and even the main intake of Bangkok's domestic water supply).[22)]

The shift also has mixed implications for flood management. On the one hand the filling of the box, which is left to depend on hydrological conditions, represents an optimal *kaem ling* flood management strategy, with boxes filled as late as possible to absorb any forthcoming excess. On the other hand, though, the BKB can now be under cultivation at a time (say, late September) when (in Phase II management) the box would already be absorbing early excess water that would gradually flood and sustain traditional varieties. The late presence of crops in the BKB is due to the increased staggering of rice cropping, as farmers try to adapt two crops to an uncertain water supply environment (the six sources identified above) while sharing water at the local level (Fig. 8). In other words, farmers cannot establish their crop at the same time because of the time needed to distribute water spatially.

The limited ability to absorb early water excesses has both local and broader consequences. Since no excess water can be sent to the BKB (or other boxes) before crops are harvested, the RID is obliged to block incoming sideflows by closing the siphons that

20) The RID sets up chat groups, which can be joined by scanning a QR code, clicking on a link, or being added by an existing member.

21) Approximately 80 m^3/second must be maintained in the estuary to avoid saline water intrusion.

22) Chularat (2016). In January 2020 saline intrusion in the Chao Phraya again threatened domestic supply, leading to plans to divert water from the Mae Klong basin.

traverse the Chai Nat-Pasak Canal. This causes flooding along the eastern embankment, which must then be dealt with through pumping ponding water into the Chai Nat-Pasak Canal itself. Across the delta the late cultivation of the boxes prevents the RID from making use of them and concentrates excess flow in rivers, which is problematic for people residing outside of the dikes, as illustrated in Ayutthaya in 2016 (described above). In summary, when scaled up to the level of the delta the local reshuffling of the water regime in the different boxes generates externalities at other scales.

IV-3 *Impact of the* Kaem Ling *Policy in Ayutthaya (Phase IV)*

The early flooding in Ayutthaya led the government to float a policy in late 2016 seeking to establish a fixed calendar to prevent late harvesting in drainage boxes. However, the complexity of the situation described above, with multiple cropping calendars varying in space and time according (mainly) to access to a diversity of (also varying) water resources, cannot be simplified and made uniform without a loss of flexibility and negative consequences.

The regulation shift achieved in the late 2000s (Phase II) saw improvements in flood management. Indeed, keeping the drainage boxes as empty as possible by releasing water at every opportunity maximizes their buffering capacity. This added capacity varies greatly since it depends on whether the boxes are filled naturally or from diverting irrigation canals—a complex and fluctuating process. The new policy (Phase IV) came with four potential negative impacts.

The first was that buffering capacity in the boxes was reduced with the introduction of the "Release water in plots, release fishes in lowlands" project[23] by the governor of Ayutthaya in association with the Department of Fisheries, the RID, and the MOAC. The new policy would enforce a fixed calendar, whereby farmers would have to harvest before September 15 (or a similar date) so that boxes could be filled, but then the RID would start filling them even when it was not necessary. This would reduce the buffering capacity that could be needed later in October, depending on future hydrological events and patterns.

Second, the policy of filling the boxes to capacity actually reverts to the water management mode of the 1990s (Phase II), except that no rice is now cultivated in the boxes during the flood period. The process brings in fertilizing silt, kills weeds, and allows fish to grow—and villagers to catch them—benefits emphasized by the local authorities of Ayutthaya. Records show that in four of the past five years the water level inside the

23) In this project the Department of Fisheries releases fish into the uncultivated paddies as the RID fills the box for around three months. Farmers can thus gain complementary revenue from fishing while waiting for the next sowing period.

BKB peaked above 4 m, despite the policy of minimizing the levels in the boxes. This means that the control of weeds and the inflow of silt are partially achieved by the Phase III management. Filling the boxes to capacity, whether necessary or not, also reduces the average buffer capacity. This is ironic since the policy is promoted under the *kaem ling* banner as a flood-mitigation strategy.

Third, the policy is to keep water in the boxes for 2.5 months. While this extension enhances fish production, it may delay the emptying of the boxes and therefore the establishment of the post-flood crop or prevent the cultivation of a second HYV crop in the box altogether.

Fourth, as well as flood management the policy promotes double cropping, thereby increasing the demand for water in the dry season. Phase III made double cropping possible, but it was mostly left to farmers to find the water to grow the post-flood crop (although the RID was at times forced to supply some to avert crop loss). In a bid to gain farmers' acceptance, however, the new policy includes priority water supply to the farmers in the *kaem ling* boxes in both the dry and early wet seasons, ensuring that they can harvest on time (mid-September). This increases water demand as well as encourages farmer complaints when the promised water is not delivered.

Another incentive included in the policy is the government's commitment to compensating farmers if early flooding damages their crop, on the condition that they register their land. The outcome of this, according to one local official, is that farmers have been tempted to register far larger cropping areas than they actually have.

It remains unclear whether this policy has in fact been implemented in the BKB as it has in the boxes near Ayutthaya (Bang Bal and Phak Hai Projects) and Bang Rakam in Phitsanulok, which are monitored more closely and may have a more direct impact on reducing water levels in the Chao Phraya River. Local residents appear unconcerned, explaining in particular that Ayutthaya's governor cannot impose the policy here because half of the BKB lies in Lop Buri Province.

V Discussion and Conclusion

The history of rice intensification over the past three decades in the floodplain of the Chao Phraya Delta in general, and the Bang Kum box in particular, shows how a trend that began in the late 1980s and 1990s in the less flooded areas of the lower delta took hold across the delta. The shift from one TV to the single/double cropping of HYVs was made technically possible by several factors, ranging from ever-increasing storage and diversion capacity in the upper Chao Phraya basin (reducing the average flood

pattern[24]), increased availability of secondary sources (drains and ponds in low-lying areas, excavated reservoirs, pumping from rivers, etc.), and elevated roads to technological advances (mechanized farm processes, the availability of short-cycle rice varieties, etc.) (see Molle *et al.* 1999; 2001a).

But the shift also indirectly resulted from the government's policy to support rice prices (Ricks 2018). The delta's floodplain had long been known for its aging farmers, smaller families, and high rates of tenancy (near Ayutthaya) (see Molle and Thippawal 1999), and a comparison of farming systems in three areas with contrasting cropping intensities in 2000 showed that low rice incomes forced villagers to migrate and/or work off-farm (Molle *et al.* 2001b). It is, therefore, understandable that windfall profits from rice due to a rise in prices encouraged farmers to act collectively and to coordinate with the RID to implement a full-fledged change in water management. Farmers who could, after investments in on-farm infrastructure, achieve a double cropping of HYVs could multiply their rice income more than sixfold. Although no in-depth research was conducted in the BKB after the changes, the authors' two visits to Ban Nong Mon in 2018 provided some striking visual hints of the new wealth of the village since the survey conducted 20 years earlier. Water use efficiency has also substantially increased in the projects thanks to local storage and the recycling of return flows.

It is not fully clear why the RID abandoned its policy to discourage the expansion of dry-season water demand. One reason might be that the 1987–2000 period, when Phase II management prevailed, was shown in retrospect to be a period with low dry-season water availability. In contrast, the 2000–11 period can be considered "wet": the amount of water released by the Bhumibol and Sirikit Dams between November and April (the dry season) in the 2007–11 period, during which prices were raised, was 8.5 billion m^3, against 6.6 billion m^3 for a median year before 2000 (Molle *et al.* 2001a). During the same period, the average area irrigated in the dry season in the delta was 5.8 million *rai*, versus 3.1 million *rai* during the 1900s (OAE, various years). Another reason is that changes in management were negotiated largely at the project level, without considering wider implications at the delta or basin level. If such considerations were mentioned, they were probably pushed aside in the face of social and political pressure in favor of expanding rice cultivation.

The most fascinating finding of this research is perhaps the interconnectedness of diverse areas through the water regime, and the cross-scale impacts of changing water distribution and cropping patterns. Water availability depends on a number of factors, some natural (rainfall—both local and in the upper basin—sideflows, dam inflow) and

24) At the same time, climate change works to increase the frequency and magnitude of extreme events.

some manageable (dam releases, scheduling, allocation, etc.). The combination of these depends on and also shapes complex and fluctuating hydrological patterns. Farmers set their crop calendars by weighing risk and uncertainty and taking into account local conditions (topography, equipment, mix of accessible or potential water sources, price of rice, etc.). But particular choices at the local level, when combined, have implications for water allocation and flood management at the delta/basin level. Notwithstanding the local benefits of the broad shift to double cropping, the floodplain of the delta has experienced some macro-level negative impacts.

The first is increased water demand in the dry season that results in competition over the resource and reduced return flow to the river system. As we have seen, this competition occurs between uplanders and lowlanders but also at a wider scale, since water allocation in the dry season resembles a zero-sum game (Molle *et al.* 2001a). The spread of dry-season cropping over the 300,000 ha of floodplain therefore means that the water used to fuel this expansion has to come from somewhere else: there will be more saline intrusion into the Chao Phraya and Tha Chin Rivers, areas elsewhere in the basin will be deprived of water, groundwater elsewhere will be increasingly depleted, or more water will be released from the dams. This last outcome may reflect increased water storage, like in the 2000s, but it can also reflect carelessness: more water is released during the dry season, at the cost of increased risk in case dams do not fill up again quickly at the beginning of the ensuing rainy season. This is what was observed in 2019 and 2020, for example.

The second cross-scale disturbance brought about by the shift to HYVs was the constraint not to flood the drainage boxes before they were harvested. This loss of flexibility in flood management resulted in unusual early flooding near Ayutthaya and flooding along the Chai Nat-Pasak Canal, as sideflows could not be allowed into the delta.

The policy implemented in 2017 was justified by its aim of avoiding such problems and restoring a degree of predictability to cropping calendars. Yet it seems to have been devised without a full understanding of water management in the delta's floodplain. The introduction of fixed calendars would reduce management capacity, add rigidity where flexibility was required, and shift the risk from farmers (who adjust to the water regime) to the RID (which committed to supply them). Ironically, the policy was devised under the banner of the monkey cheek policy while actually undermining an existing system that was close to an optimal monkey cheek strategy. This complexity is not easily comprehended, which is why a form of adaptive management that favors flexibility and risk-taking at the farm level is preferable to a top-down approach that attempts to freeze crop calendars within a fluctuating and unpredictable environment. Although the strategy has been implemented in Bang Rakam, near Sukhothai, and in other drainage boxes of the

delta, it seems that its practical implementation in the BKB, and possibly elsewhere, will prove unviable.

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Citizens, Civil Society and Heritage-Making in Asia

Hsin-Huang Michael Hsiao, Hui Yew-Foong, and Philippe Peycam, eds.
Singapore: ISEAS Publishing, 2017.

Citizens, Civil Society and Heritage-Making in Asia probes heritage-making and civil society movements in pivotal locations across Asia. Based on the contributors' intensive research and closeness to people in diverse places, it provides a better understanding of Asia, particularly of societies and groups at the grassroots level and their identities. It makes a significant contribution to Critical Heritage Studies (CHS) by drawing attention to the creation of civil society through heritage-making analyses. Although CHS engages with similar themes and social levels, the sociological insights of this book into rarely studied sites and groups, along with other important themes such as complex politics, colonial and postcolonial memories, and kaleidoscopic tempi in Asia, make this volume unique.

Reflecting on preceding arguments of CHS, particularly the studies of David Harvey (2001) and Laurajane Smith (Chapter 2), Chapter 1 envisages heritage as an ongoing process or performance (thus, not an object or a place but a "verb") of living people wherein they negotiate the significance of particular aspects of the past for their present concerns; and therefore, it is a potential guide to self-recognition. In Chapter 2 Smith discusses these points by summarizing post-1990 CHS arguments, including the impact of the Europe-centered notion of Authorized Heritage Discourse (AHD) on heritage-making worldwide. She also presents her recent theme, the politics of recognition, arguing that one's self-recognition is (re)discovered through (re)interactions with things, sites, or spaces that become "heritage" in their own right. Heritage can be understood only through a detailed insight into individuals' emotional and imaginary work that redirects them to redefine differences with others. This "politics," however, differs from identity politics because it is separated from the manipulation of identity.

Although Smith discusses privatized recognition of Western selves, she presents an important foreground for the rest of the book, which is structured by heritage-making at different levels: (1) the national level and its relationship with international and local levels (Chapters 3, 4); (2) diverse players and groups at the local level (Chapters 5–8); (3) de-territorialized immigrant groups

(Chapters 9, 10); and (4) different levels of people within a boundary (Chapters 11–14).

Chapters 3 and 4, overviewing official policies to nationalize heritage in Myanmar and Indonesia, respectively, argue that heritage-making is the concern not only of states but also of diverse inhabitants as well as academia, the private sector, and NGOs. The common theme of these chapters is that incorporating official efforts into the beautification-centered or Cartesian AHD for landscape preservation does not necessarily lead civil society to a common recognition of "our heritage." This is also a vital theme in CHS. The Indonesian case alerts us to the difficulty in building heritage-based civil society empowerment as such efforts are rarely compatible with inhabitants' economic and cultural concerns. In contrast, the AHD-based preservation in Yangon may bring colonial shadows into realization through a civil group; the post-2011 elitist urban preservation may reactivate economic and social differentiation among multiethnic residents, embodied during the British colonial period. The two studies, while examining multiple players' voices, make one rethink the close relationship of postcolonial heritage-making with the AHD reminiscent of the colonial past.

The subsequent four chapters continue to discuss/suggest the failure of participatory heritage-making and the possibility of an alternative heritage. With a focus on the local level, Chapters 5, 6, and 7 portray heritage-making as emotional explorations into selves, which redefine immaterial traditions as heritage. Chapter 5 shows grassroots-level communities' rediscovery of religious ceremonies as their heritage in post-Doi Moi Vietnam. By tracing experiences of socialist atheism in the North and South, people immerse themselves in conducting ceremonies together with kinsmen. This is done differently in each region. Using examples of two cultural villages in Malaysia that highlight minorities' cultural practices through local and international middlemen, Chapter 6 discusses disenfranchisement of minorities in spaces where their lives are to be encouraged. Chapter 7 discusses the emotional process of rediscovering identities in heritage-making in the context of the Philippines. It uniquely points out that the tragic stories in regionally made films convey emotional messages to marginalized islanders. It also suggests that films can bridge borders between Manila and the peripheries, enabling them to exchange emotions at film festivals.

Chapter 8 provides a final example of local engagement in heritage-making, discussing contestation-laden landscape preservation and postcoloniality in Macau, which is a designated heritage site for its "blend of the East and the West." However, Macau witnessed gentrification, infrastructural development, and reactivation of gambling under the official policy of localizing capital within Macau. Chinese-origin inhabitants support the preservation of landscape, although, as in the case of Yangon, the call to "blend with the West" may actually mask the shadow of the city's colonial past. This civil protest is underpinned by the non-dichotomous self-recognition of postcolonial residents as citizens of a cosmopolitan city.

All subsequent chapters focus on examinations of Chinese people in diverse places. Chapters 9 and 10 examine groups of Chinese people who migrated to Myanmar and Singapore. Their ideas

of authentic Chinese culture vary by place of birth and generation. The first generation, which moved cross-regionally, established heritage as beyond-descent assets, sharing experiences of crisscrossing an Asia that was already territorialized. Their offspring, however, conceptualize heritage by accessing extended networks covering Asia. Chapters 11 to 14 discuss the case of Taiwan. Chapter 11 outlines transformations of official policies related to heritage-making, including the first Japanese colonial ordinance and Taiwan's hallmark Act of 1982 and its conceptualization of heritage as capital, while the other chapters show how officials and the public make and use heritage. Preservation or demolition and ways of commemorating objects, places, and time (i.e., ways of treating landscapes of the Japanese colonial period and the history of Taiwanese veterans) are decided in accordance with living people's economic lives and sensibilities about health and beauty. Chapters 11–14 also contain arguments surrounding this book's common theme, i.e., through heritage-making, people craft memories and self-recognition in the postcolonial present.

Thus, the multiple layers of discussion in this volume offer significant keys to understanding present-day Asia. However, a few points remain unexplored, for instance, the recognition of cultural diversity and differences between individuals and groups. If the politics of recognition entails recognition of differences, as suggested in the beginning, it is necessary to examine relationships of the focal groups with other groups and their ways of defining differences. In-depth examinations of the focal groups mask these points, particularly the analyses of the Chinese group networks. What kinds of emotions, sensibilities, or intimacy have (do) the Chinese groups or creative networks found (find) within their groups through interactions with non-Chinese groups? It should be noted that the microscopic scrutiny of the recognition of difference, which may be rewarding in terms of understanding cross-border movements, must be bound by the cultural perspective. Heritage-making, citizenship, and intimacy are culturally diverse processes. This means that a gender-based perspective is also important for further analyses. However, notwithstanding the abovementioned points, this book presents model studies not only for CHS but also for studies of civil society, memory, and postcoloniality in Asia.

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Anthropogenic Tropical Forests: Human–Nature Interfaces on the Plantation Frontier

Noboru Ishikawa and Ryoji Soda, eds.
Singapore: Springer, 2020.

The island of Borneo has long occupied a sensationalized niche in the Euro-American imagination, depicted historically as a land of exotic rituals and fierce headhunters, and more recently as a treasure trove of biodiversity threatened by unbridled capitalism and human destructiveness. These preoccupations frequently inflect social scientific literature on the island, with anthropologists, for example, producing detailed accounts of indigenous rituals and folklore, and political ecologists writing critical analyses of frontier development and its sociopolitical effects.

As this sober, insightful volume reminds us, however, there are far messier and more complex realities that lie beyond these dominant tropes. Building on a rich history of collaboration between Japanese and Malaysian academics, *Anthropogenic Tropical Forests* presents a nuanced, empirically grounded picture of one "plantation frontier" in the Malaysian state of Sarawak, tracing its social, political, economic, and ecological transformations over time and gesturing toward new possibilities for its future.

Edited by two leading Borneanists—anthropologist Ishikawa Noboru and geographer Soda Ryoji—this tome is rooted in a major multidisciplinary research project (2010–14) based in the Kemena and Tatau riverine systems in Sarawak's Bintulu Division. Conceiving of the basin catchment as a "unitary social field" of "mixed landscapes and multiethnic and multispecies communities" (p. 2), the research team carried out both individual fieldwork and collaborative subprojects on everything from history to hydrology, global politics to plant ecology. *Anthropogenic Tropical Forests* is the fruit of their empirical and conceptual labors—but it is far more than a detailed project report. Filling that awkward space between conventional village- or ethnic group-centered ethnographies and large-scale analyses of regional trends and developments, the volume amply demonstrates the value (and indeed necessity) of sustained, multi-scalar transdisciplinary engagement as a means of capturing the complex transformations at work in this region.

The book is divided into four sections. Part 1 (Landscape, Culture and History) provides overviews of different facets of the Kemena and Tatau river basins, covering their geomorphological and hydrological characteristics; land-use patterns; multiethnic composition; local histories of mobility, intermarriage, and settlement; and forest dwellers' long-running involvement in regional and global commodity flows. Taken together, these reveal how the region's geomorphological uniformity generated a socio-ecological riverine network that facilitated high levels of mobility and exchange, thereby sustaining a multiethnic basin society engaged in extensive trade and other relations.

Part 2 (Inflection Points of Nature) foregrounds the "interfaces among fauna, flora and the

human community" in the area, exploring, for example, different species' adaptation to human-disturbed landscapes (Chapter 8); natural salt licks and forest patches within managed/production forests (Chapters 9 and 10); and the impacts of plantations on stream water chemistry, carbon dynamics, and stream fish biodiversity. While written as conventional natural scientific analyses, these chapters collectively foreground the inextricability of "nature" and "culture" in one anthropogenic landscape, revealing how human activities such as hunting and plantation management are transforming and reorganizing ecological relations on the ground. Yet what also emerges is a sense of nonhuman agency and adaptability: of regenerating biomass, for example, and of various species adapting to and even thriving in degraded forests.

The theme of adaptation is further developed in Part 3 (Plantations as Social Complexes and Infrastructure), which grapples with one of the most contentious developments in Sarawak's history: the rapid conversion of vast swathes of the state to acacia and oil palm plantations in recent decades. In contrast to current polarizing debates surrounding oil palm/palm oil, the four chapters in this section take a measured, empirically grounded look at key elements of the plantation frontier. For instance, Kato Yumi and Samejima Hiromitsu reveal how human-animal relations and hunting patterns have shifted in plantation landscapes, as both bearded pigs and local hunters adapt to the possibilities emerging at the interface between plantations and natural forests (Chapter 14).

Similarly, Soda, Ishikawa, and Kato explore how plantation and road expansion have transformed indigenous villagers' livelihoods and movements, generating a new social and spatial infrastructure of three main nodes—village, *langkau* (roadside huts), and urban residences—that allow people to move between three different economies (the natural economy along the river, the plantation economy along the road, and the urban economy in Bintulu). Intriguingly, they highlight how many villagers' turn to oil palm smallholdings is itself a strategy to protect their customary land from appropriation by the state or corporations. A similar portrait is painted by Soda and Kato in Chapter 17, which examines the flexible livelihood strategies of oil palm smallholders, who use both recent infrastructural developments and more traditional methods (such as kin-based networks and *beduruk*—an Iban labor-exchange system devised for rice cultivation) to remain adaptable and resilient. As the same authors note in Chapter 16, however, their capacity to do so is contingent on the evolution of the relationship between companies and smallholders, which, they argue, does not have to be based on a dichotomy between the two.

Part 4 (Commodification and Local Processes) entails a scalar shift, as the book pans outward to reveal the dynamic commodity chains linking the Kemena-Tatau basin catchment to the rest of the world. This is achieved through a series of fascinating case studies that explore, among other things, the trajectories and multiple ontologies of edible birds' nest, rattan, bezoar stones from porcupines, and timber—from the point of harvesting/production to their sale and consumption in far-off places. Again, nonhuman entities and more-than-human relations play crucial agentive roles

here: swiftlets adapt to both modified landscapes and human-built swift houses, with implications for Chinese-indigenous villager economic relations; oil palm plantations attract and sustain porcupine populations, with implications for hunting techniques and the emergence of a new, increasingly lucrative bezoar trade. What also becomes evident, however, is Sarawak's entanglement in wider international trade dynamics and politics: the birds' nest and bezoar trades are fueled and inflected by ethnic Chinese demand in Asia; rattan exports are impacted by Indonesia's changing export rules; forest and plantation management bureaucracies are shaped by Western concerns about sustainability and indigenous rights.

These four sections are tied together by an introduction and a brief coda. While the former introduces the river basin as a field of study and sets out the analytical framework for the rest of the book, the latter delves into recent social scientific discussions about the Anthropocene and its alternatives, such as the "Capitalocene" and the "Plantationocene." This shift in conceptual framing appears to reflect the timescale and evolution of the original research project. When the project ran from 2010 to 2014, anthropology and other disciplines were just experiencing a "turn" to multispecies and more-than-human ethnography—the influence of which is evident throughout the volume. By the time of the book's publication in 2020, this more-than-human interest had morphed into a broader preoccupation with the all-consuming, boundary-breaking figure of "the Anthropocene" and the socio-natural ontologies that it was both unveiling and engendering. As Ishikawa explains: "the crucial moment of the Plantationocene was unfolding in front of our eyes during the study" (p. 591).

There has been surprisingly little sustained engagement between such recent bodies of work and Borneo studies, and this volume marks an important step toward opening up new conversations between these fields of scholarship. It does so not by indulging in speculative thought experiments (as do some more florid versions of multispecies and Anthropocene writing) but through the juxtaposition of multiple disciplinary perspectives and case studies that cumulatively generate a more-than-human appreciation of this Anthropocenic space. Having said that, it would have been good if the volume's overall conceptual framings (basin societies, more-than-human ontologies, Plantationocene, etc.) had been more thoroughly integrated into the individual chapters. As it stands, the introduction and coda are left to do much of the conceptual heavy lifting and the work of integration and connection. Readers dipping into individual chapters may thus lose sight of the vital, stimulating insights that can be gained from reading the book as a unitary intervention.

Another minor concern is the slight datedness of some of the primary research material, which was collected in 2010–14, when plantation expansion in Sarawak was progressing apace and global trade and internationalism were less fraught than they are, in this milieu of assertive nationalism, receding internationalism, and, of course, a global pandemic. While the gap between research collection and publication is understandable—the book is a feat of organization—it does raise interesting questions about how different things might look today. For example, recent years have

seen a greater international focus on sustainable palm oil, an EU ban on palm oil in biofuels, and moves within Malaysia to halt new plantation expansion—all of which are undoubtedly shifting the dynamics of oil palm cultivation and smallholder-company relations in the area.

To be fair, though, the authors do acknowledge the temporal specificity and transitional nature of their case studies—the fact that they constitute a "snapshot" of one plantation frontier at a particular moment (p. 593). And in many ways, this is one of the collection's key strengths. As the chapters so compellingly show, Borneo has long been, and continues to be, a site of transformation and innovation. Rather than treating change as anomalous or irrevocable, *Anthropogenic Tropical Forests'* long view reveals how recent events constitute merely one phase in Sarawak's extensive, dynamic history of movement, exchange, and adaptation. This is exemplified by Soda and Kato's discussion of how the growth of oil palm smallholdings has precipitated a return migration to and revitalization of village communities, which were previously expected to be "hollowed out" by frontier development.

None of this detracts from the fact that Sarawak—and Borneo at large—have seen extensive, often destructive environmental transformations over the past few decades. What this volume does, however, is cut through the sensationalism and declensionism that often characterize recent portrayals of Borneo (and related topics such as oil palm) to present a more nuanced view of the multispecies, multiethnic, and generally multiplicitous dynamics and experiences at work on the ground. Through this lens we see destruction, conflict, and loss but also creativity, coexistence, resilience, hope, and new possibility. It is testament to the editors' and contributors' commitment to grappling with complexity through empirically grounded scholarship that these points come across clearly and compellingly, without the need for theoretical or conceptual gymnastics. In short, this is a groundbreaking contribution to Borneo studies and an exciting model of cross-disciplinary collaboration from which scholars in Southeast Asia and beyond can learn.

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The Collapse of British Rule in Burma: The Civilian Evacuation and Independence

Michael D. Leigh
London: Bloomsbury Academic, 2018.

In his previous work, *The Evacuation of Civilians from Burma*, Michael D. Leigh covered a time in Burma when the myth of British imperial invincibility was shattered by rapid Japanese invasions of Southeast Asia. With the scope of that work ending in May 1942, *The Collapse of British Rule in*

Burma continues the narrative and provides a welcome contribution to the scholarship covering the Second World War in Burma, often referred to as "Britain's forgotten war." Despite this book continuing the author's previous work, it should be emphasized that it is a stand-alone work and fills a gap in scholarship by presenting an account of the collapse of British rule, with a focus on the civilian perspective. The dominant impression given is one of embarrassingly poor planning and governance on the part of the British authorities, which contrasts with outstanding displays of character and spirit in the face of adversity from many of those rushing to flee Burma in the hope of finding solace and security in India. Indeed, the official handling of this situation was so humiliating that, when combined with the demythologizing of British superiority, it was impossible for those administrators that did return to restore British rule following the Japanese surrender or to hope for anything beyond a rushed but negotiated exit.

However, the appeal of this work is not simply that it covers an oft-overlooked area but also that the author presents an incredibly detailed combination of academic assessment and personal accounts. Those rushing to evacuate were a strange combination of British expatriates, Anglo-Indians, and a cross-section of the Indian community ranging from those engaged in commerce to those working as soldiers, as servants, and in similar professions. Leigh manages to demonstrate how no two experiences were quite the same, with panic and desperation permeating all accounts. A rapid advance by the Japanese followed an initial surprise invasion, and within four months of the initial crossing from Thailand the entirety of Burma was within Japan's grasp. Leigh attributes this humiliating collapse of British defenses to repeated underestimations of Japanese military capability, a mistake that the indigenous independence movement did not make, working with the Japanese before, during, and after the invasion. Accompanying this is a potted history of British expansion and Burmese nationalism, which provides a welcome context for those who are approaching this from a non-Burma focused background. This is matched by a general contextualization of the Second World War in Southeast Asia for those with less of a grounding in military history. With the context thus established and the focus of the book firmly on the civilian experience, it is perhaps unsurprising that the role of the Japanese forces throughout the rest of the book is comparable to beaters on a shoot, flushing and driving civilians onward into rushed escapes, via direct actions such as bombing and strafing convoys and settlements, but also through the sheer power of their psychological role as an existential threat. And so, instead of the Japanese, the main enemy in the majority of the accounts of evacuation is nature, whether the dusty dry season bringing dehydration and heat exhaustion or the rains and humidity leading to sores, infections, and malaria.

The main body of the work focuses on three evacuation routes out of Burma, using individuals and their experiences to illustrate the often brutal and punishing reality that was deadly for so many that attempted it. First was the Chindwin Valley, viewed as the quickest, safest, and easiest; this was used by Europeans who had left their evacuation planning until too late but set forth, in

some cases taking their cars as far as possible and in others using steamships for the majority of the journey. Another group selected for specific attention is a group of wives and children of Bombay Burmah Trading Company (BBTC) managers, with Leigh describing their relatively relaxed start with elephants, a cook, and good-quality produce that soon takes a turn for the worse with the coolies starting to die from cholera and stays in an "unpleasant refugee camp . . . on hard bamboo beds in huts" (p. 47). However, this hardship seems short-lived, and the families' privilege and station ensure that they are well looked after by the BBTC. This contrasts with the experience of the poorer classes who struggled through without the aid of elephants, coolies, or reliance on their husband's position in society. As in most terrible situations, humanity is often surprisingly resourceful, with key examples of selflessness. For the Chindwin Valley, the standout figure is Major William McAdam, who acted to keep the aforementioned cholera (and other diseases) down to a minimum, refusing to panic even as hundreds were dying, and personally inoculating thousands of evacuees, acting as an inspiration for those around him. In terms of actual infrastructure, Leigh pays tribute to the nameless laborers and porters who contributed in their own way to the saving of thousands of lives by either working on the roads or helping with luggage, etc.

The next route is the Hukawng Valley, where during the rainy season the amount of mud involved leads to a comparison with Passchendaele (p. 80). This follows the Chindwin route being closed and the governor fleeing Burma. The final airfields are now destroyed by Japanese bombing, and so the desperation to leave has resulted in much riskier routes being taken. Diseases like malaria and dysentery are rife, leading to death being so common that "it was briefly mourned by near relatives but ignored by the passing crowd" (p. 61), with decomposing bodies being felt under the feet of those trekking through the mud, past huts filled with bodies. On this route, it is Cornelius North's conduct that stands out. He stayed at his post after his superiors fled to India and "prevented a tragedy from becoming a wholesale disaster" (p. 60). However, emotions ran high, and despite other accounts speaking of "tolerance, fairness and generosity to people of all race" (p. 84), one account accuses North of favoritism, condemning the conditions of the camp. The government and colonial administration are, at most points, notable for their absence. Instead, we have figures like North standing out, and organizations like the Indian Tea Association, which provided food, porters, elephants, camps, medicine, and other support, ultimately saving many lives. The association played such a key role that Leigh gives it its own chapter, detailing how its engineers and tea pickers switched from their usual roles to work on the front line of evacuation, ultimately taking up the mantle of administration and care that had been hastily abandoned by the civil servants meant to be running the country.

The final and most severe route was the Chaukan Pass, which was so hazardous that the commander in neighboring Assam urged the Burma government to prevent anyone from using it. As mentioned numerous times earlier, the Burma government had collapsed and certainly

was in "no position to be preventing anyone from doing anything" (p. 97). That said, this route was notoriously hazardous and why anyone used it is viewed as a bit of a mystery by Leigh, who links a handful of theories, such as a rejection of "diktats delivered by pen pushers" (p. 99). With the two previous routes being in such a state they claimed thousands of lives and this route being more precarious, it is remarkable that those using it survived at all. Despite subsequent spinning of the terrible situation as an "adventure yarn" with "high-ranking colonial officials and faithful native bearers being rescued from the jaws of death" (p. 99), from Leigh's perspective it seems that it was more a case of disproportionate resources being spent on ensuring any of these officials survived, with much of the success attributable to porters, "menials," and soldiers who remain nameless. For those who survived the evacuation via any of the above routes, the impact of the horrors they experienced seems clear and accompanied them as they were settled across India. Once again Leigh's attention to individual and personal stories stands out here, with rather dull and depressing experiences juxtaposed with the successes of those who saw their escape and their post-escape time in British India as a chance to network and further their professional career.

A combination of the suddenness of the Japanese surrender and the focus on the evacuees rather than the ongoing situation in Burma, the return to Burma—of both its former inhabitants and British rule—seems rather abrupt, which is probably an accurate representation and adds further to the indictment of the Burma government as incompetent. The author devotes the final few chapters to explaining Burma's progress toward independence, something that helps bring the study to its natural conclusion, though it is better covered elsewhere. Ultimately the argument advanced by Leigh is that the poor handling of the evacuation demonstrated the general ineptitude of the colonial administration and further underlined its unsuitability for further rule over Burma, in the eyes of both London and the Burmese who were now clamoring for independence. Combined with the ascendancy of the US as the key world power, the resulting change in opinion toward colonialism, and the poor experiences of the British in enforcing colonial rule on behalf of allies in Vietnam and Indonesia, Burma is viewed as more a liability than an asset.

Of the 350,000 evacuees, Leigh estimates that more than 90 percent were Indians, and so it is somewhat surprising to see their experiences relatively absent from this study. Whether this is due to poor preservation and a lack of diary keeping or an inability to find sources is not clear. Indeed, an account of the experiences of Indians during this pivotal time—if possible—seems worthy of further study, given the Indians' position of "being between a rock and a hard place" as they found themselves viewed as British lackeys by the Burmese nationalists and treated badly by their colonial overlords. That said, this volume still contributes an interesting approach to this era of British imperial history, with the reader finding a real appreciation for the nameless laborers and porters who made the large-scale escape possible. As such, this book would be of interest to those with a curiosity for military, imperial, and social history as well as Southeast Asia and Burma

specialists who seek to understand the dynamics of this key period. Given the lack of resources available on the experience of evacuation from the Indian perspective, it is understandable that such a viewpoint might be lacking; but one criticism is that there are some bizarre moments of repetition in the text, with the same event being described in the same words in different chapters. This is more of an annoyance than a significant flaw as it does not impact on the argument advanced by Leigh, but sadly it lets down what is otherwise a tight and well-written book.

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Champa: Territories and Networks of a Southeast Asian Kingdom

ARLO GRIFFITHS, ANDREW HARDY, and GEOFF WADE, eds.
Paris: École française d'Extrême-Orient, 2019.

Champa: Territories and Networks of a Southeast Asian Kingdom is the latest publication to come out of a relatively recent international collaboration on Champa studies.[1] It includes a preface (an introduction to the scholarship on Champa and the major issues of this volume) and 17 articles contributed by 20 authors (among them seven female scholars) who studied, worked, and/or have been working in Vietnam, France, England, Italy, the United States, Canada, India, Russia, China, Singapore, Japan, and other countries. The compact but relevant preface, a summary at the beginning of each article, pictures and maps, tables, detailed footnotes concerning sources, and frequent mention of the connections among chapters and authors will all help students and scholars outside their own discipline to make their way into the accumulation of professional research and sources from many disciplines, such as archeology, history, epigraphy, linguistics, architecture, art history, and iconography. In this sense, this book can even serve as the first full-scale research guide to Champa studies.

Senior readers may be impressed with how the academic framework of "Indianized states" in ancient Southeast Asia synthesized by George Cœdès by the 1960s, and that of Vietnamese national history that developed after Vietnam's independence, were—and are—being revised. In these frameworks, Champa (the history of Champa itself was mainly synthesized by George Maspéro) was generally treated as an "unfortunate" weak state. War in Central Vietnam until 1975 and the subsequent isolation of unified Vietnam made it difficult to update the research on Champa. From the mid-1980s on, however, Champa studies saw a rather dramatic revival—not only in Vietnam

1) It was compiled based on the papers presented at the Paris conference on "New Research in Historical Champa Studies" in 2012, organized by EFEO and ISEAS Nalanda-Sriwijaya Centre, Singapore.

and France but also in English-based academia, Japan, Malaysia, Indonesia, and so forth.[2] New academic trends such as Southeast Asian regional history, maritime Asian history, social history, and global history supported the revival and subsequent new development of Champa studies. The Đổi Mới (renovation) policy of Vietnam and academic policies of ASEAN also enhanced international collaborations among Vietnamese and foreign scholars for fieldwork, excavations, archival research, and publications.

This book is divided into three parts, titled "Territories," "Kingdom," and "Regional Networks." The six articles in Part 1, which are based on research in the archeology of the Metal Ages and early states, epigraphy and ethnolinguistic studies, archival study of early modern legal documents, and so forth, clearly show that the conventional theory of state formation through Indianization—whether by Indian colonizers or by local chiefs—and the narrow picture of the mono-ethnic kingdom of the Chams which collapsed in the fifteenth to seventeenth centuries can no longer be maintained. The relationship between Sa Huỳnh culture (a metal culture that thrived in present Central Vietnam) and the impact of Chinese culture in the early Champa "capital" of Trà Kiệu (Quảng Nam) are stimulating new debates on the process of Champa's formation. The evidence of Chinese influence may also shed new light on once-forgotten debates on the relationship between Linyi (a polity that gained independence from China's southernmost district of Xianglin, possibly having its first centers to the north of the Hải Vân Pass) and Champa (which seemingly emerged in present Quảng Nam). The epigraphic and ethnolinguistic findings in the highlands and riverine networks that connected the sea with islands, port cities, plains, and highlands (where not only Austronesian speakers but also Mon-Khmer ones played important roles) lead readers to new inquiries about the diverse territorial and ethnic composition of Champa, while the archival study of the eighteenth century, the last phase of Champa history, shows potential for new research topics such as class and gender.

With a complete inventory of architecture and inscriptions, and diplomatic documents of Ming China, the five articles of historical, architectural, and epigraphic research in Part 2 mainly attack two earlier views, one held by the Indianized school before the 1970s (represented by Cœdès) and

2) Major works published in Western countries include Centre d'Histoire et Civilisation de la Péninsule Indochinoise, *Actes du séminaire sur Campa organisé à l'Université de Copenhague le 23 Mai 1987* [Proceedings of the seminar on Champa organized at the University of Copenhagen, May 23, 1987] (Paris, 1988); Centre d'Histoire et Civilisation de la Peninsule Indochinoise, *Le Campa et Le Monde Malais: Actes de la Conference Internationale sur le Campa et le Monde Malais* [Champa and the Malay world: Proceedings of the international conference on Champa and the Malay World] (Paris, 1991); Andrew Hardy *et al.* (eds.), *Champa and the Archaeology of Mỹ Son (Vietnam)* (Singapore: NUS Press, 2009); and Trần Kỳ Phương and Bruce M. Lockhart (eds.), *The Cham of Vietnam: History, Society and Art* (Singapore: NUS Press, 2011). A considerable number of publications have appeared in Vietnam too. While research on inscriptions and sources written in classical Chinese and Sino-Vietnamese has been almost absent, Vietnamese academia has been active in archeology, architecture and sculpture, ethnology, and so forth.

the other proposed since the 1980s by revisionist scholars (such as Trần Quốc Vượng). First, the authors are quite critical of the conventional picture of Indianized states, in which Champa after the tenth century was declining under constant pressure from Đại Việt and Cambodia. Instead, they show the strong authority exercised over vast territories beyond the present Quảng Nam–Quảng Ngãi region by such kings as Jaya Harivarman in the twelfth century (after the occupation by Ankhorian Cambodia) and Virabhadravarmadeva (seemingly two separate kings who reconstructed the kingdom after the damage caused by Đại Việt from 1390) in the early fifteenth century. These understandings, combined with a reexamination of early Chinese sources and inscriptions until the seventh century, raise the second issue: critical counterarguments against the revisionist hypothesis since the 1980s, which regarded Champa as a mere loose federation of local powers (in other words, there were different Champas through the course of history). With an exhaustive reexamination of epigraphic sources, the contributors to this volume emphasize the unitary nature of Champa, with its center located in the Thu Bồn river system in Quảng Nam. (Note, however, that Linyi in Chinese sources until the early eighth century may have indicated a different polity from Champa.) Andrew Hardy, one of the editors of this volume, tries to reconcile such a unitary nature with the coexistence of local powers and the collapse of the unitary Champa after 1471, proposing a dynamic mechanism of integration and fragmentation in a segmentary state (a model that used to be applied to the cyclic nature of political integration and disintegration in India).

The final six articles, in Part 3, focus on diplomatic and cultural interactions between Champa and surrounding countries/people, a research topic encouraged by new perspectives of interstate/interregional networks. The fundamental change in research on Chinese documents, which took place after the 1970s (when a great deal of authentic materials became available) but was overlooked even by revisionist scholars not familiar with Chinese documents and the Sinic world, is now well applied to the study of the triangular relationship between Champa, Ming, and Đại Việt. The renovated methodology of linguistics allows for a revision of well-known theories, proving that Acenise is not a direct descendant of the Cham language but has a more remote kinship with the Cham from a far earlier phase and that the Chamic language on Hainan Island derived not from the Northern Cham dialect but from a more southern one. New evidence in the fields of architecture and sculpture is exploited to shed light on regional interactions and their routes between Champa and Dvaravati, Cambodia, India, and Java. Not only diverse influences among these areas and the unique creativity of people from many parts of Champa—famous centers such as Mỹ Sơn and Đồng Dương in addition to northern areas such as Quảng Trị and Huế, and southern areas such as Phú Yên and Bình Định—but also the role of artists moving between different countries (between Champa and Dvaravati, for instance) are discerned.

In sum, this book shows in an exciting way what world academia can achieve when thorough exploitations of source materials (inscriptions by Arlo Griffiths and Chinese records by Geoff Wade, for example) are combined harmoniously with new perspectives and theories of area and global

studies (regarding cultural spheres and cultural interaction, state integration and collapse, and so forth) against the background of effective collaborations and discussions among scholars from different academic disciplines. This will surely provide Japan's academia, from which young scholars (including Yamagata Mariko, who contributed a paper to this volume) have appeared one after another since the 1990s, with a reliable base for broader participation in collaboration and discussion. There are important works by Japanese scholars that are still to be introduced to world academia (though some of them were published in Vietnamese or Chinese or referred to in Momoki [2011]), from the studies of earlier-generation Asianists on the Yuan-Mongol expedition, the introduction of Islam, the origin of the words *kalambak* and *gharuwood*, and so on to the recent findings on Champa ceramics in Japan and the reexamination of Champa's position within the tributary system and imagined world order of Song China and Lý-Trần Đại Việt (Endo *et al.* 2018).

Finally, the Kyoto-style historical research in ecology, technology, and agricultural development, which was applied effectively to research on the deltas of the Red River and the Mekong by Sakurai Yumio and other scholars, should be remembered. Scholars such as Trần Quốc Vượng, William Southworth, and Hardy have attempted to understand the geographic and ecological conditions of Champa in general ways. This reviewer believes that Kyoto-style research can be applied to research on present-day Central Vietnam in order to deepen the views of the scholars mentioned above. Leaving aside the extraordinary development of fifteenth-century Đại Viêt (pointed out by Hardy in his chapter in Part 2), future research using Kyoto methods on agrarian societies is expected to help historians deepen the study of the social and economic background of Champa's drastic political rise and fall during the fourteenth and fifteenth centuries.[3] This will help the Eurasian long-term history of Lieberman's *Strange Parallels* (2003; 2009)[4] (to which both Hardy and John Whitmore refer in their chapters) to incorporate Champa in a better way.

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3) Rainfall in Central Vietnam varies from province to province. The slightest change in rainfall, combined with demographic trends, may have caused serious damage in some regions, given the supposed primitive water control system employed by the Chams. I raise preliminary questions on these issues in "Was Champa a Pure Maritime Polity?" (1998) and "A Short Introduction to Champa Studies" (1999). See also Richard A. O'Conner, "Agricultural Change and Ethnic Succession in Southeast Asian States: A Case for Regional Anthropology," *Journal of Asian Studies* 54(4) (1995): 968–996.

4) Victor Lieberman, *Strange Parallels* (2 vols.) (Cambridge: Cambridge University Press, 2003, 2009).

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Southeast Asia's Modern Architecture: Questions of Translation, Epistemology and Power

Jiat-Hwee Chang and Imran bin Tajudeen, eds.
Singapore: NUS Press, 2019.

What is Southeast Asian architecture? Does the construction of Southeast Asian architecture depend on whether "Southeast Asia" is valid as a geographic unit of analysis? These were the two basic questions of the 2015 symposium "Questions in Southeast Asia's Architecture / Southeast Asia's Architecture in Question," organized by the Southeast Asia Architecture Research Collaborative, which gathered together the new generation of scholars of architecture at the Department of Architecture, National University of Singapore, with interesting results.

Many of the papers presented at the symposium have been published in a new volume, *Southeast Asia's Modern Architecture: Questions of Translation, Epistemology and Power*, which is a pioneering work in the twentieth-century architectural history of this region (especially in the post-colonial Cold War period) and progresses beyond conventional explanations of architectural history.

In the introduction, "Historiographical Questions in Southeast Asia's Modern Architecture," editors Jiat-Hwee Chang and Imran bin Tajudeen give a detailed explanation of the limitations of past studies on the region's architectural history. They point out that using the term "Southeast Asia" as a geographic unit of analysis has problems, limitations, and opportunities. From there, the editors introduce the reader to the basic issues of the book on modern architecture in Southeast Asia through a review and classification of past approaches. They show the limitations of past approaches and propose an appropriate direction for studies under three broad conceptual frameworks: translation, epistemology, and power. The book is structured in three sections, each following one of these issues, and each containing three articles.

The nine articles have a few distinctive features, the first of which is that they present many theoretical frameworks that cross boundaries between disciplines. Postcolonialism, postmodernism, nationalism, material culture, gender and power, etc., are used as tools to analyze architecture, including the built environment, in articles such as those by Anoma Pieris on "Thinking beyond the Nation: Repositioning National and Regional Identities through Architectural Discourse" and Koompong Noobanjong on "Forgotten Memorials: The Constitutional Defense Monument and Democracy Temple in Bangkok, Thailand." The former article is an attempt to propose a new approach to the study of architecture in the region, which enables us to escape the trap of nationalist frameworks and a Eurocentric approach. The latter article is an attempt to apply semiotic theory to the study of the political forces and meanings that operate through modern forms of art and architecture in Thailand, which were established by the political group Khana Ratsadon (the People's Party) in 1932–47. The application of this theoretical framework leads to the discovery of increasingly complicated perspectives on architecture that go far beyond conventional studies. These articles also help to reveal exciting new case studies that, if developed further, can help create a much better understanding of the original theoretical frameworks and can even develop new theoretical frameworks for explaining social phenomena in the region.

The second distinctive feature is the diversity of case studies. All nine articles are studies of architecture—whether government buildings, religious buildings, hotels, or public spaces—and also conservation policies for ancient sites in the postcolonial period, many of which incorporate designs that have hardly received attention or are spaces occupied by ordinary people that have been neglected or overlooked. The areas of study cover important cities in the region, including Bagan in Myanmar, Bangkok in Thailand, Saigon in Vietnam, Bali and Yogyakarta in Indonesia, Singapore, and Manila in the Philippines. However, it is somewhat regrettable that there are no studies of Phnom Penh in Cambodia and Vientiane in Lao PDR, which I personally see as having architecture that is interesting and highly significant in understanding the history of modern architecture in the region, especially in the period after independence in the mid-twentieth century.

The final unique feature, and in my opinion the most noteworthy, is that all the articles have the common characteristic (whether deliberate or not) of challenging past studies that tend to

explain the creation of modern architecture in this region (even if created during the colonial period or the postcolonial Cold War period) within the conceptual framework of a Eurocentric approach. All the articles attempt to change the explanatory perspective to pay attention to the complex interaction among the "selection," "negotiation," and "adaptation" of concepts from outside within the economic, social, and political contexts that have individually arisen in each society and in each place where architecture has been created. For example, Tutin Aryanti's "Women's Prayer Space: A Feminist Critique of Southeast Asian Islamic Architectural History" studies the design of prayer spaces for women in mosques in Indonesia through the concept of "visible" and "invisible" spaces that reflect the "power" and "social structure" of women in Muslim society in Indonesia; this society has characteristics in common with global Muslim society (the Arab world) as well as some that are unique to Muslim society in Southeast Asia.

"The Aesthetic Citizen: Translating Modernism and Fascism in Mid Twentieth-Century Thailand" by Lawrence Chua is similar. The author explores the acceptance of a modern architectural "form" from Europe by Thailand's political elite after the change in the form of government in 1932. He shows that the architectural form's "meaning" went in a direction that was not at all the same as the original meaning in European society. If we consider the Eurocentric approach in past studies, this issue may be taken as a lack of knowledge and understanding by the architects who produced a design that went against the concept and meaning of this form of architecture. But a conceptual framework of "translation" leads to the creation of a new understanding in the practice of cultural politics in architecture, which shows that local people were not at all interested in what the original meaning was because the important point was how to adapt the design so that it responded to political events in the most effective way.

In "Conservation Diplomacy and the Narratives of Material Antiquity," Tim Winter points to this issue in an interesting way. He suggests a clear picture of the model and direction of the conservation of ancient sites in Bagan in the postcolonial period. This appears as significantly different from the colonial period. First, the source of funding to support conservation changed from the former colonial power to countries in Asia. Second, and more important, the concept and theory of conservation changed; it began to distance itself from the methods of a Eurocentric approach, which emphasized one form of value. This could be "authenticity of materials" or the scientific process, which saw ancient sites as a cultural legacy in the academic dimension. In this way, studying and understanding the past reveals the original values based on a traditional worldview of ancient sites as sacred places. This leads to a different approach to conservation, such as reconstruction in a way that prioritizes restoration to a perfectly beautiful condition rather than preserving the remains of enormous bricks. The difference, which amounts to conflict, between these two approaches is a reflection of "translation," which is a significant feature of the postcolonial period.

Above are the unique contributions that this book brings to academic circles in the field of

modern architecture in the region. It should be noted that most of the articles emphasize in-depth studies of a single city in a specific country rather than comparative studies across many countries. Thus, this book contains studies that give an in-depth picture of each study area but lacks a broad, regional picture. It cannot be denied that the case studies are diverse and cover almost all of Southeast Asia. But it would have been much better if the results from the detailed case studies could have been collated to form some common frameworks for analyzing Southeast Asia as a whole.

If we consider Winter's article from a broader perspective, we find that this case is an example of a phenomenon that is not confined to Bagan. The conservation of ancient sites in Thailand, Laos, and Cambodia, at least in the past few decades, has taken on characteristics and a direction that are no different from one another, based on the concepts of hybridity, accommodating science, religious beliefs of local people, and capital. This encourages us to move to other related issues, such as what Pattana Kitiarsa[1] calls "Popular Buddhism," which shows the hybridity of formal Buddhist concepts that have entered popular religion, capitalism, and globalization. I personally think that this phenomenon is not at all dissociated from the change in worldview when looking at ancient sites, including the hybrid conservation methods referred to above.

Aryanti's article similarly has the potential of leading to a proposal for a big picture of the design of mosque spaces in the Southeast Asian region, which has distinctive characteristics. For example, this article shows that women's and men's prayer spaces are placed together in the same mosque building, which is very different from mosques in the Middle East. This may be explained as a consequence of the long-term history of Southeast Asia, where many studies have shown that the status of men and women has not been as polarized as it is in the Middle East.[2]

It should be stated that Aryanti's argument does not in any way glorify Southeast Asia as having a distinct identity, unlike any other place in the world. Besides, as everyone well knows, the conceptualization of "Southeast Asia" as a region arose only in the Cold War period. Even so, the geographic characteristics together with the long-term history of the region may make it impossible to deny that a considerable portion of the social and cultural legacy has remained and that many "common characteristics" still have consequences today. Even modern history, from the start of the term "Southeast Asia" in the context of the Cold War until the present, has lasted more than 60 years; this is a sufficiently long period for producing some common characteristics from an economic, political, and cultural viewpoint.

The papers in this volume attempt to take a comparative view in order to show a broad picture

1) Pattana Kitiarsa, *Mediums, Monks, & Amulets: Thai Popular Buddhism Today* (Seattle: University of Washington Press, 2012).
2) Examples of studies on this issue are Anne Booth, "Women, Work and the Family: Is Southeast Asia Different?," *Economic History of Developing Regions* 31(1) (2016): 167–197; and Bagoes Wiryomartono, "A Historical View of Mosque Architecture in Indonesia," *Asia Pacific Journal of Anthropology* 10(1) (2009): 33–45.

and reveal some common characteristics of the Southeast Asian region. This may lead to the construction of a new theory for understanding the history of this group of countries. Architecture may emerge as one of the important tools in confirming or creating this theory.

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Asian Place, Filipino Nation: A Global Intellectual History of the Philippine Revolution, 1887–1912

Nicole CuUnjieng Aboitiz

New York: Columbia University Press, 2020.

In her remarkable book *Asian Place, Filipino Nation*, Nicole CuUnjieng Aboitiz restores the balance in the literature on the 1896 revolution that overthrew Spanish colonial rule in the Philippines. Until the last decade, historians—especially those in the Philippines—focused their attention on the indigenous causes of the revolution and the conditions from whence they emerged to explain its eventual success, despite the splits in the leadership of its vanguard, the Kataastaasan, Kagalanggalangang Katipunan ng mga Anak ng Bayan (Supreme and Venerable Association of the Children of the Nation), popularly known as the Katipunan.

These explanations revolved around the transformation of the colonial economy from a mere appendage of a China-Mexico trade into a producer of agricultural commodities for the global market, the change in the class structure which saw the rise of a "Filipino middle class," and the beginnings of an urbanized Manila. Economic exploitation and political oppression were the principal motivations behind the armed struggle, inspired by the writings of young *ilustrados* (intellectuals) who introduced European liberalism to the colony.

This was the dominant explanation by the foremost historians of the nation, although by the 1980s a millenarian-nativist turn in the literature gave prominence to how peasants and an emergent urban proletariat were less inspired by European liberalism. Instead, they saw their lives as a contemporary parallel to that of Jesus Christ. The Son of God's suffering became their suffering,

his struggles their revolt. Christ's ascension to Heaven portended the establishment of an Earthly Heaven once the Spanish were brought down to their knees.

CuUnjieng Aboitiz does not deny these explanations' validity, but her book is also a subtle, perhaps a bit too respectful, dig at their inadequacies. She notes the "transnational and regional historical setting [that] has barely been incorporated into the localized and Western-oriented historiography of the Philippine Revolution" (p. 2). She acknowledges European liberalism's footprints in the nation-in-formation. But she also broadens her gaze to argue that 1896 was a pan-Asianist popular movement, the first ever in Asia.

Her book thus focuses on that "moment when things could have gone differently, when thinkers were redrawing their geographies of political affinity and envisioning quite a different potential world order, ordered along lines of Asian solidarity" (p. 12). And by privileging that conjuncture, she reassesses "the Philippine Revolution's thought and impact, particularly in relation to the landscape of 'Asia' then newly reconceived in anti-imperial thought" (p. 7). *Asian Place, Filipino Nation* thereby

> allow[s] us to understand the revolution's full historical role and place; to illuminate an important transitional moment in Southeast Asian, imperial, and global history in the region; and to reconnect Philippine history to that of Southeast and East Asia at this pivotal moment of the birth of the Philippine nation. (p. 7)

Japan figured prominently in the *ilustrados'* and *revolucionarios'* plans, inspired as the latter were by Japan's ability to stand up to the European powers and its seeming willingness to go beyond just the usual declarations of solidarity with the anticolonial struggles of fellow Asians. Filipinos looked forward to their "fellow Pan-Asianists lending material aid toward revolution and harnessing transnational Pan-Asian networks of support, activism, and association toward doing so" (p. 26). But it was not only the Japanese who were seen as potential comrades-in-arms. The Filipinos were also well aware that "certain . . . Southeast Asian intellectuals and activists were moving to enlarge the Pan-Asian map" (p. 71).

The revolution—the first nationalist uprising in the colonial world—was thus more than just European inspired; it also represented the germs of comradely solidarity among Asia's nationalists. Some of the fruit of these seeds may not be to our liking (Japanese aggression in World War II), but others are worthy of praise (Chinese material support to Southeast Asian liberation movements, including those of Filipino Maoists; the formation of an Indonesian nationalist army soon after the Japanese left; the Bandung Conference; the failed Maphilindo experiment; and, pushing this further into present times, the formation and resilience of ASEAN).

CuUnjieng Aboitiz looks at Philippine history laterally. Hence, instead of the orthodox "vertical" view of Spain vs. the Philippines, or liberalism shot out of European bows and landing on a nation-in-the-making, you have Asian rebels and nationalists exchanging notes on how best to oust

the hated imperialists. Instead of a "top-down" portrait of the revolution, with *ilustrados* and local elites leading the masses, or vice versa, patronizingly depicting the masses as inspired by the *Pasyon* to justify their actions and pressure their elites to remain loyal to the revolution, you have an incipient pan-Asian solidarity. And at the center of this invigorating flow of experiences and ideas was the Philippine Revolution, "the first case of successful transnationalization of Pan-Asianism, involving cross-border political practice and revolutionary networking" (p. 26).

This is a very refreshing look at Philippine history, and one which belongs on the same shelf as the new scholarship on Mindanao—notably, Oliver Charbonneau's *Civilizational Imperatives: Americans, Moros, and the Colonial World* (2020), Patricia Dacudao's "Abaca: The Socio-economic and Cultural Transformation of Frontier Davao, 1898–1941" (2018)—and on the place of the Philippines in the dynamic movement of people and ideas across Asia (the best compendium on this phenomenon is *Traveling Nation-Makers: Transnational Flows and Movements in the Making of Modern Southeast Asia* [2011], edited by Caroline S. Hau and Kasian Tejapira).

CuUnjieng Aboitiz draws inspiration from Benedict Anderson's *Under Three Flags: Anarchism and the Anti-colonial Imagination* (2007), Resil Mojares's *Brains of the Nation: Pedro Paterno, T.H. Pardo de Tavera, Isabelo de los Reyes and the Production of Modern Knowledge* (2008), and Rebecca Karl's *Staging the World: Chinese Nationalism at the Turn of the Twentieth Century* (2002). These scholars are known and admired for their intellectual iconoclasm. Anderson's "detective story" tries to find the links between Filipino nationalism and global anarchism, an interesting attempt to put a more international spin to homogenous, empty time. Mojares sees goodness and intellectual acuity in the much-despised compromisers T. H. Pardo de Tavera and Pedro Paterno. The Visayan Mojares places fellow *probinsyano* and Ilocano Isabelo de los Reyes on the same level as—perhaps even higher than—the usual cohort of nationalists led by the Manileños and the Tagalog-speaking Jose Rizal and Marcelo del Pilar. Finally, Karl's conversations with exiled Filipino Maoists while doing her field research in China eventually led to a book that shows how Chinese nationalists were inspired more by the Philippine Revolution than Europe's political turmoil.

Asian Place, Filipino Nation is, among other things, CuUnjieng Aboitiz's way of moving the chess pieces further forward. This book is an excellent addition to an increasing number of regionally grounded works on the contemporary Philippines, which is the hallmark of CuUnjieng Aboitiz's generation of Philippinists.

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Sonic City: Making Rock Music and Urban Life in Singapore

Steve Ferzacca

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This book documents the making of rock music in Singapore by a small community of amateur musicians along with their friends, families, and fans, and also the making of urban life and vernacular history. The author, Steve Ferzacca, has conducted research in the field of medical anthropology in Indonesia. In 2011 he encountered Singaporean rock musicians, which led to his attempt to describe the ethnography of their urban life in Singapore. For the most part, this ethnography is a study of popular culture as signifying practices rooted in the everyday routines and habits of contemporary life in Singapore (p. 21). Ferzacca was involved with the small rock music community for six years (2011–16) as an anthropologist and as a member of several Singaporean rock bands.

The main discussion appears in the Overture (Introduction) and Chapter 5. This book discusses how a community that would be characterized by many Singaporeans as unconventional, atypical, and noisy was used by the government for the development of the nation when it attempted to revitalize the 1960s Singaporean rock stars as valuable and noteworthy intangible heritage. Singapore's official discourse and legislation are deeply concerned with "noise pollution" and controlling the sounds of many different groups of people. The 1960s rock music scene was considered to reflect "subversive youth trends" and the threatening and dangerous presence of "yellow culture." Despite this, why has the negative image of English-language rock music in Singapore been positively reevaluated since the 2010s as national heritage? *Sonic City* explores this research question through ethnography.

In Chapters 1 to 4, the author documents the past and present activities of a legendary rock musician in Singapore. Ferzacca's fieldwork started in the basement of a shopping mall, the Peninsula Shopping Centre (opened in 1980), located in the Central Business District of Singapore. It was here that a small rock community emerged. Lim Kiang is a core participant in this community of musicians as well as the author's main informant. Sixty-five-year-old "Old Man" Kiang remains engaged with the rock community. He played bass for a legendary and pioneering 1960s English-language rock band in Singapore, The Straydogs (1966–78). The author participated in the community as a musician and ethnographer, researcher and friend, from 2011, when he first met Kiang.

To explore the character of this rock music community, Ferzacca places Kiang and The Straydogs in the context of Singapore's popular music history, especially in the 1960s. Recalling his youth, Kiang said, "We only listened [to] Western music." In the 1960s, Katong—Kiang's birthplace—had a cosmopolitan flavor and was populated by an English-educated middle class, Eurasians, and Straits-born Chinese. This was where Kiang and his friends encountered modern Western culture and became attracted to 1960s English-language popular music. For the members

of The Straydogs, Katong was an urban place where cosmopolitan modernity could be experienced. Even though the musicians have now left Katong, they continue to portray its cosmopolitan atmosphere through their music and the small community in the basement of the Peninsula Shopping Centre.

The Straydogs and other local bands played a Western rock repertoire as well as original compositions that localized the music as Singaporean. The Straydogs and other 1960s Singapore bands represented and embodied the cosmopolitan modernity that was Singapore. These local musicians and bands made this cosmopolitan music their own.

The basement of the Peninsula Shopping Centre allowed for everyday heterogeneous movements and the reassembling of humans, as well as a local site for creating community. In 2011, Kiang built a small guitar shop in this basement. The shop hosted—and continues to host—happy hour jam sessions every Monday and Friday beginning around six in the evening. Nearly every afternoon, and especially on weekends, a group of regulars get together to drink and jam. They even celebrate Chinese New Year at the shop.

The author conducted deep participant observation of the small community and participated in afternoon jam sessions, band rehearsals, and performances. During six years of committed engagement with the rock community, he came to recognize some characteristics.

First, it is insightful that hanging out, drinking alcohol, and having jam sessions is characterized as Singaporean male bonding. In the events at the live music club, the clientele is largely—nearly always—male. Women are present but in small numbers. The events in the small community are composed as personal, but at the same time collective, cultural festivals of masculine performativity. While the images, activities, and associations that surround the everyday life of this community of amateur musicians are cosmopolitan and include people from many different backgrounds, most of the activities are characterized by the centrality of masculinity and male bonding.

Second, The Straydogs and their associates present a "community of interest" organized around rebellious behavior (smoking, drinking, and making noise) and "cosmopolitan conviviality." As amateur musicians involved in the music scene, Kiang and the others who form the guitar shop entourage, again a community of interest, reproduce community in a "vernacular heritage" with the "rocker" and the rock-and-roll lifestyle as it existed in the past and present. Local communities like the guitar shop become involved in such events and encounter other communities that share similar interests. Kiang and his associates construct a vernacular heritage within a community of interest organized around rebellious behavior and cosmopolitan conviviality. The rock community comprises the "undesirable" elements of vernacular heritage that counter state-sponsored versions of national heritage. In fact, Singaporean rockers of the 1960s remained mostly unrecognized by state-sponsored heritage projects until the first decade of the twenty-first century.

Such activities of "vernacular heritage" are, however, now recognized as official "national

heritage" by the government. Since the 1990s, interest in the 1960s rock music scene has increased among Singaporeans. Since the 2010s, the 1960s Singapore rock music scene has been revitalized by the nation-state as being worthy of belonging to Singapore's national heritage and history.

Kiang is frequently recruited to participate in national heritage-building projects. In 2015 he was called upon to reunite The Straydogs for a national heritage performance at the Esplanade, Singapore's premier concert hall. This concert was a national heritage project in celebration of Singapore's 50th anniversary as a nation-state.

The author does not, however, conclude that The Straydogs was simply utilized for state projects. The Media Development Authority and stage manager asked the group to revise their set list and song lyrics, but the latter refused. The concert organizer worried that the musicians would engage in prohibited rebellious behavior, but in fact they just drank and smoked. The author, who participated in the event, viewed the performance of heritage as a "hybrid" project of vernacular and national heritage. This is an original perspective that could only be gained through the author's deep engagement with the community.

Overall, this book is an intriguing work that provides a comprehensive and detailed picture of a changing urban soundscape full of diverse participants, including amateur and semi-professional musicians as well as their family, friends, and fans in Singapore.

As a researcher of Indonesian popular music, I believe that the book makes two major contributions to Southeast Asian popular music studies. First, given that popular music studies on Singapore are not as frequent as such studies on other Southeast Asian countries, especially Indonesia, this book is significant. Also, considering that Southeast Asian popular music studies have been dominated by studies on non-Western hybrid genres such as dangdut (an Indonesian popular music genre), focusing on the rock music scene is a valuable contribution, especially in highlighting the history of Western popular music in non-Western countries.

Second, with his historical and ethnographic analysis, the author successfully sheds light on the urban activities of legendary rock musicians in the twenty-first century. Most popular music studies conduct either historical or ethnographic analyses. The former analyses focus on historical documents of the rock music scene in the 1960s–70s but do not pay attention to how '60s rock stars are living in the present. The latter analyses focus on musical activities in the twenty-first century but do not examine deeply the historical context of the present music scene. In this book, the author successfully draws out the past and present of legendary rock musicians from historical as well as contemporary perspectives.

The book does, however, have one shortcoming. I regret that Ferzacca does not elaborate further on the complicated interaction between the urban life of the small rock music community and the structure of ethnicity. He finds that ethnic diversity and tolerance are embodied in the community, but this book does not address the involvement of the ethnic minority. The shopping complex where the small rock community is based is known as "Little Burma" and has several

ethnic Burmese migrant workers providing services, food, and shops for Singapore's Myanmar community (pp. 32–33, 86). But the dominant people in this book are Chinese Singaporeans and Christians (pp. 87–88). The ethnic backgrounds of those who participate in the rock community are not necessarily diverse. Despite the shopping complex having a majority of Burmese people, the book does not clearly show whether they participate in the rock music community. Although the author admits the book is less attentive to the structure of ethnic inequality (p. 136), I expect that other analyses of inequality as an ethnographic example will further develop from this analysis, which will give us a new understanding of Singapore's urban politics beyond majority-centered analyses.

Nevertheless, this does not reduce the significance of this study. Although lacking a point of view related to the structure of ethnicity, as indicated above, the author succeeds in providing a deeply insightful ethnography of the Singapore rock music community. The book helps in fostering a better understanding of popular music and urban life in Southeast Asia.

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