

LABOUR AND TIN MINING IN MALAYA

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PREFACE

Mr. Nim Chee Siew's account of Labour and Tin Mining in Malaya derives from a more comprehensive treatment of the subject represented by his Honor's thesis presented for the Bachelor's degree in Economics at the University of Malaya in 1951. Development of his understanding of this subject has not been confined to an inspection of the written record, but to an important extent is a result of first hand experience. From January through September 1947, he worked as a general assistant to the managing-director of a Chinese tin mining company in Kuala Lumpur, and during the two months period, December 1950 through January 1951, he carried out a field investigation in various tin mining areas of Malaya for the purpose of collecting material for his Honor's thesis.

During 1951 and 1952 while at Cornell University Mr. Siew participated in seminars of the School of Industrial and Labor Relations and Department of Far Eastern Studies. Here his understanding of the problems of labor and tin mining in Malaya suggested to faculty members the desirability of mimeographing his Bachelor's Honors Thesis so that participants of these seminars and other interested students might have a fuller opportunity of reading it. Mr. Siew was then asked if he would condense his original manuscript so that costs of mimeographing might be kept to reasonable limits. It was felt by the interested faculty members of the School of Industrial and Labor Relations and the Southeast Asia Program that the condensed version of Mr. Siew's thesis would be of value to others outside of Cornell interested in the problems with which his thesis is concerned. Accordingly, it was decided to increase the run of copies and bring it out in the Southeast Asia Program's Data Paper series. The costs of printing this paper have been shared by the School of Industrial and Labor Relations.

The Cornell Southeast Asia Program and School of Industrial and Labor Relations wish to express their appreciation to Mr. Siew for making his manuscript available and for his willingness to condense it so that it might be brought out in the Data Paper series.

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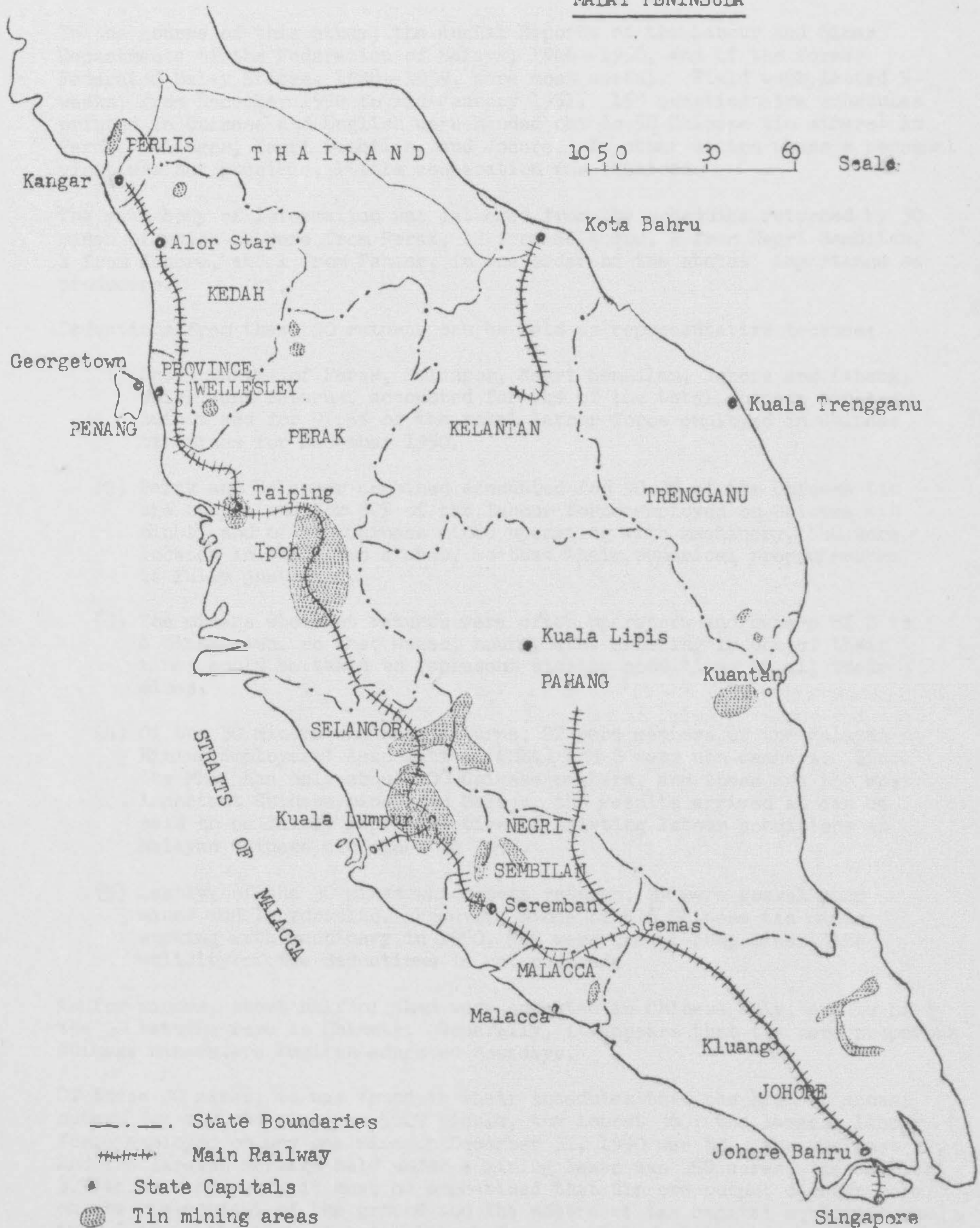
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MALAY PENINSULA



INTRODUCTION

In the course of this study, the Annual Reports of the Labour and Mines Departments of the Federation of Malaya, 1946-1950, and of the former Federated Malay States, 1928-1939, were most useful. Field work lasted 5 weeks, from December 1950 to mid-January 1951. 150 questionnaire schedules printed in Chinese and English were handed out to 50 Chinese tin miners¹ in Perak, Selangor, Negri Sembilan, and Johore. In other states where a personal visit was not possible, little cooperation was obtained.

The main body of information was gathered from the schedules returned by 30 mines of which 14 were from Perak, 12 from Selangor, 2 from Negri Sembilan, 1 from Johore, and 1 from Pahang, in the order of the states' importance as producers.

Deductions from these 30 returns can be held as representative because:

- (1) The 5 states of Perak, Selangor, Negri Sembilan, Johore and Pahang, which sent returns, accounted for 94% of the total Chinese tin-ore output and for 91.5% of the total labour force employed in Chinese tin mines for December 1950.
- (2) Perak and Selangor combined accounted for 90.3% of the Chinese tin ore output and for 87% of the labour force employed on Chinese tin mines, and of 576 Chinese mines operating with machinery, 540 were located in these two states, so that their numerical preponderance is fully justified.
- (3) The miners who sent returns were often operators and owners of 2 to 6 mines each, so that wages, hours, etc. existing in one of their mines could be taken to represent similar conditions in all their mines.
- (4) Of the 30 miners who sent returns, 22 were members of the Malayan Mining Employers' Association (MMEA) and 8 were non-members. Since the MMEA has only about 100 Chinese members, and these are the most important Chinese miners in Malaya, the results arrived at can be said to be fairly representative of existing labour conditions in Malayan Chinese tin mines in 1950.
- (5) Lastly, of the 30 mines which sent returns, 29 were gravel pump mines and 1 hydraulic. However, since of 576 Chinese tin mines working with machinery in 1950, 549 were gravel pump mines, the validity of the deductions is not reduced.

As for miners, about half of them were educated in Chinese only, and 14 of the 30 returns were in Chinese. Generally, it appears that the more prosperous Chinese miners are English-educated nowadays.

Of these 30 mines, it was found in their schedules that the highest annual output for any one mine was 5000 piculs, the lowest 360; the largest labour force employed on any one mine on December 31, 1950 was 131, the smallest 22, and the largest acreage held under a mining lease was 450 acres, the smallest 3.5 acres. However, it must be emphasized that tin ore output depends more on the ore-content of the ground and the nature of the capital equipment used than just on the size of total labour force employed or the total acreage.

1. "Miner" refers to owner or operator, and not to the labourers or employees.

CHAPTER I. HISTORICAL SURVEY¹

A. Pre-War

Arab writers made references to Malayan tin ore as early as the 9th Century A.D. In 1408, Admiral Cheng Ho, an envoy of China, visited Malacca, and his secretary, Ma Huan, noted tin as a principal export; in 1436 another of his secretaries, Fei Sin, recorded that tin was the only export of Malacca.

A Malay tin coinage was in existence in Malacca before its conquest by the Portuguese in 1511. When the Dutch captured Malacca from the Portuguese in 1641, they established trading factors to collect tin. Dutch records show that 344 tons of tin ore were exported from Malacca in 1649.

In 1786 Penang was ceded to Britain and in 1787 the annual export of tin from Perak was about 3000 piculs (or 170 tons). Towards 1800, the Perak output was 5000 piculs (or 283 tons), and by 1804 it rose to 9000 piculs (or 510 tons). Though tin purchasing was the chief interest of early Chinese traders - (and they might have superintended the mining of tin ore or even laboured in some undertakings) - yet it must be emphasized that mining labour up to the 19th Century was mainly Malay.

The immediate result of the establishment of British rule in some states was a great influx of Chinese immigrants who used the ports of Singapore, Penang, and Malacca as jumping-off points to search for tin in the Malay States. The earliest important Chinese mining centre in Selangor was Lukut, now incorporated in Negri Sembilan. In 1824, of 1000 inhabitants in Lukut, about 200 were Chinese miners and mining labourers. By 1874, it had 10,000 Chinese in its mines.

In 1828, there were nearly 1,000 Chinese in tin mining in Sungei Ujong, Negri Sembilan. These were divided into 9 Kongsis chiefly of the Heaven and Earth League (Thian Ti Hui). Each was under its respective chief or towkay. It was really a secret society with mysterious oaths and secret laws similar to the Carbonari of Europe. Their amassed wealth aroused the greed of the Malays and they were massacred. But some Chinese returned later in 1832 and worked in the Sungei Ujong mines. The wages of Chinese mine workers were \$5-\$8² per month as compared to the rate of Malays at \$3-\$5. Thus at an early date, the greater efficiency of the Chinese worker was recognized. The hours of work were from 6 am. to 6 pm.

In Selangor steady mining development took place. Mines were opened at Kanohing by Ka Yin Chiu Hakkas. In 1859, tin was exported from Kuala Lumpur for the first time. This was produced by Fui Chiu Hakkas. Ten years later, faction fights broke out between these 2 branches of Hakkas and after a bloody war, the Fui Chius were victorious. Their Headman, Yap Ah Loi, became virtual ruler of the Kuala Lumpur area. By 1871 there were about 12,000 Chinese miners and mine labourers in Selangor and the output was 3000 piculs or 170 tons monthly.

In Pahang by 1838 there were some Hakkas who worked the mines there. They intermarried with Malays or Balinese slaves, and had the monopoly of minting money four times a year up to a certain value. This monopoly lasted till

1. This is a summary from many previous publications of the principal developments which have taken place, the chief source being Blythe, W.W. L. Journal Malayan Branch, Royal Asiatic Society, Vol. XX, Part 1, 1947, "A Historical Sketch of Chinese Labour in Malaya".

2. 3.1 Straits or Malayan Dollars was equal to one American dollar in 1950.

1893. Between 1838 and 1887 they mined gold and tin. Europeans started mining at Sungei Lembing in 1887, and the Pahang Consolidated Company at Sungei Lembing is the chief tin producer and chief employer of mining labour in Pahang today.

In Perak, by 1824, there were perhaps 400 Chinese residents working in the tin mines and as traders. Chinese miners were introduced into the Larut district around Taiping in 1848 by a Malay named Long Jaifar, who, in that year, obtained from the Perak Sultan¹ a title to this area in which he had already opened tin mines. It seems there were only three Chinese at Larut then. But by 1862, there were 20,000-25,000 Chinese in the mines and by 1872 there were 40,000! The majority were Cantonese, the rest were Hakkas. Large scale rioting broke out between the two factions in 1862 concerning control and ownership of mining areas, each backed by a powerful group of the Triad Society. The fundamental cause of fighting was tribal hatred between the Cantonese and Hakkas. The Larut Wars of 1862-1872 were exclusively a struggle for possession of the Larut Mining Lands. The Mentri of Larut sat on the fence. Two Malay societies, the White and Red Flag Societies, sided with the Cantonese and Hakkas respectively. These wars were also linked up with the disputed succession to the Perak throne. The fighting became so serious by 1872 that the British intervened. Sir Henry Ord and later Sir Andrew Clarke called a meeting of the Malay chiefs and Chinese headmen at Pangkor in 1873. Under British arbitration the disputed area was partitioned between the Cantonese and Hakkas. After the first overzealous British Resident for Perak, Mr. T.W.W. Birch, had been murdered, his successor, Mr. Hugh Low, met with success through more tact. This ended the Larut wars.

After 1880, the Hakkas became dominant in Larut mining and the Cantonese shifted their sphere to Selangor where they are dominant today. A great influx of Chinese labour entered Malaya in 1882, and when riots traceable to Triad Society influence became numerous from 1884-1889, an Order-in-Council was issued, absolutely prohibiting all Chinese secret societies. In 1895, a Registration of Societies Enactment was passed providing for registration and dissolution of societies. This proved effective eventually.

In 1887, the Perak population had 80,000 Chinese, chiefly in mines in the Larut and Kinta areas. By the early 20th Century, Kinta had an annual output of 200,000 piculs (1134 tons) and has since then maintained its position as the premier tin producing area in Malaya. In 1891, the Perak Annual Report says that nearly all alluvial tin mining was in Chinese hands, though there were 4 or 5 European and Australian companies. The "advancement" in the Kinta "was almost incredible", says the Perak Annual Report of 1893. By 1897 there were nearly 90,000 Chinese in Perak.

In early years, mining was by hand only. In 1877 the first steam engine and centrifugal pump to be used in tin mining in Malaya was introduced into Taiping, and its use spread throughout the industry. In 1884 the first European company, a French-owned one, was formed in Perak. This was in Kinta. French Tekka in Perak is over 50 years old. The Gopeng Mining Company floated by Messrs. Osborne and Pike in 1892 was the first British company. The pioneer firm of mining and consulting engineers, Messrs. Osborne and Chappel, dates from 1902.

The industrialization of the West led to an increased demand for tin. In 1898 a boom in tin began, resulting in a rapid rise in wages from about 30

1. Sultan: Malay chief or ruler of the state.

cents a day in 1896 to 45 cents in 1898 and 70- 80 cents in 1899. (The Straits Dollar of 100 cents was then worth 2 shillings.) Such high wages stimulated immigration of Chinese male labour and it is estimated that between 1899-1900, 100,000 Chinese entered the Malay States. So in 1901 it was found that the Chinese formed 65% of the Selangor population and 46% of the Perak population.

In this connection, the system of Chinese coolie¹ immigration is best described in the work of Mr. W.W. L Blythe². The evils of indentured labour were foreseen by Sir Stamford Raffles who in 1823 passed an Ordinance limiting the amount of passage money to \$20 and the period of service to repay the creditor to 2 years. But there was no enforcement.

Many immigrant Chinese labourers came in on the credit ticket system. A coolie broker would advance cost of fare and food from China for new immigrants. Upon arrival at Singapore he would get employers for them and make a large profit from the refund of those advances. There were many abuses so that new passengers became known as "Chue Tsai" or piglets. These slave dealers had no scruples. Even when a coolie found employment, he was often badly treated by his kepala³ or foreman. His movements were very restricted for fear of his absconding. He was seldom paid any money wages, and had to purchase most of his necessities from a company store. This "super-truck system"⁴ left the coolie always indebted to his initial employer and tended to keep him working at one place.

In 1854, coolies were obtained thus: a merchant chartered a vessel to China, and on arrival sent agents or crimps who went around the countryside to persuade or cajole unsuspecting people by false promises of wealth to accept bounty money. These were then huddled quickly on board the ship, the agent getting \$1 per head for commission. Such new immigrants were called Sin Khehs⁵, and when they arrived in the Straits, the resident Chinese flocked on board to buy them. The ship charterer obtained from \$15 for a skilled craftsman to \$3 for a sickly coolie. The Sin Kheh agreed to serve for 12 months, receiving food, clothes and a few dollars as wages. The cost of food was \$2- \$4 per month only. After 12 months' service, the Sin. Kheh was at liberty to seek employment with whom he pleased.

The Report of the Labour Commission of 1876 gave the following account of the immigration system:

"Immigration takes place between June to October in steamers which take 6- 8 days for the passage from China. There is better treatment on board due to competition.

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1. "Coolie" is a lowly paid unskilled daily worker. This term has been replaced by "labour".
 2. Blythe, W.W. L. Journal Malayan Branch, Vol. XX, Part 1, 1947, Royal Asiatic Society "A Historical Sketch of Chinese Labour in Malaya".
 3. Kepala is a foreman-supervisor.
 4. Truck-system: forcing coolie to buy food, etc. at a company store or from a contractor, or payment of wages in purchase certificates to be used only in a particular store.
 5. Sin Kheh means new passenger.

"A Chinese chartered a vessel, the number of immigrants being fixed according to the boat's measurements. Some 3 weeks before her departure for Singapore, notice is given to the nearby villages, and bands of men form themselves under a Kheh Thau¹, who is usually a returned emigrant from the Straits. He takes his band to a lodging house at the port of embarkation, and their departure is arranged for through the agents of the ship - invariably a European firm - so as to escape the official squeeze.

"The passage money is \$7 - \$8, but becomes \$12 if given on credit. Emigration is voluntary and no cash advance is given as inducement to leave China. The ships are visited and inspected by Chinese and European officials before their departure.

"Upon arrival at Singapore, those who paid their fares are free to leave and seek out employers. Those who owe the fare are kept on board for a few days while their Kheh Thau goes to look for prospective employers to pay the passages. If there is a demand for coolies, the Kheh Thau makes a large profit, getting perhaps \$20 per head for his band, whereas they probably cost him only \$13 - \$14 each. If the demand is slack he can get \$16 - \$17 for each. If no employers come forward to pay the passages owing, the coolies are landed and shut up in houses or sent to Penang if the steamer goes there."

This 1876 Report was the result of petitions to the Governor in 1871 and 1873 by Chinese merchants and citizens who drew attention to the abuses and racketeering methods of the secret societies. The Commission of 1876 made various sound recommendations but only one became immediately effective. In March 1877, a second Chinese Immigration Ordinance (No. 11 of 1877) was passed by which Mr. W. A. Pickering, the Chinese Interpreter, was appointed a Protector of Chinese at Singapore. The Chinese Protectorate was thus founded, and the work of outstanding Chinese Protectors such as Mr. Pickering, Dr. V. Purcell, Mr. W. L. Blythe and others have won the respect and appreciation of the Malayan Chinese community.

Various other ordinances for the protection of labour followed², but vested interests were so powerful that they managed to get legislation passed for the protection of the employers against crimping³ and non-fulfillment of contract.

In 1890, another Commission was appointed to enquire into "the state of labour" and its Report in 1891 stated the main complaints to be:

- (1) The physique and quality of the coolies imported.
- (2) The deficiency in numbers with its attendant evils of crimping and desertion.
- (3) The excessive cost of obtaining coolies.

1. Kheh Thau: passenger chief or head.

2. See Blythe, W.W. L. "Historical Sketch of Chinese Labour in Malaya", pp. 75 - 76.

3. Crimping: method of inducing labourers to break their contractual obligations with their employers who had advanced them their passage money.

The Report also had interesting revelations on "Abuses in China and on the voyage" and "Defects and abuses on arrival".¹ The chapter on "Defects and abuses during the contract" is well illustrated in Blythe's work.² As an example, the Assistant Protector of Chinese (Mr. Wray) said that during one of his inspections "one man had", he stated, "worked against his will for 9 years, and was still indebted when I went there". The contract usually called for 360 days or 12 full months' work; wages were \$30-\$42 per year, half of which was often deducted for passage to the broker. However, free food was supplied, though of poor quality.

The most important recommendation of the 1890 Commission was that inspection of places of employment should be instituted. The Penang Chinese Protectorate was established in 1881, Perak in 1883, Selangor 1890, Malacca 1911, Negri Sembilan 1914, Kedah 1923, Johore 1927, and Pahang 1938. Thus the protection for the Chinese labourer was extended throughout Malaya.

Though the Government did not establish its own depot for the reception of Sin Khehs, the Chinese established their own depot at Kuala Lumpur in 1890. This institution had accommodation for 1,200 men. The object of making employers apply to the depot for Sin Khehs was to prevent crimping, and coolies were prevented from absconding since employers who engaged labourers without a certificate of good service from their last employer were liable to a fine of \$200. A Sin Kheh who had performed a year's service became a Lau Kheh³ and was free to seek a new employer if he had a certificate.

In 1910, a one-man Commission was appointed by the Governor to enquire into matters connected with indentured labour. The Report showed little change in the recruitment of Sin Khehs, but it was found that "the usual rate of wages for indentured Chinese agricultural labourers was 5 cents per day and food."⁴ Labourers in mines received slightly higher wages. Details of some of the then existing abuses were described. The Commission recommended the abolition of indentured labour and the substitution of the Indian "Kangany system". This was followed by Chinese mining employers.

From a welter of piecemeal legislation between 1910-1912 emerged "The Labour Code, 1912" which though since much mended, forms the basis of the 1933 code. The final abolition of indentured labour was reached with the passing in November 1914 of an amending Enactment No. 32 of 1914 which made all indentured written contracts null and void after June 30, 1914.

The legal abolition of indentured labour had little influence on the supply of labour since the Chinese miners had already developed a system of private recruitment whereby an employer needing labour would send his Kepala to China to recruit men, usually from the latter's village. The recruiter would advance all expenses and take the men to their place of employment. An account would be opened in the employer's book and the cost of "importing"

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1. Blythe, W.W. L., "Historical Sketch of Chinese Labour in Malaya", pp. 78-79.
 2. Ibid., pp. 79-82.
 3. Lau Kheh means old hand.
 4. Blythe, W.W. L., "Historical Sketch of Chinese Labour in Malaya", pp. 91.

the labourer would be debited to the latter's account. This cost included commission for the recruiter and a "squeeze" for the employer so as to cover losses for any absconding. No wage was paid out but the labourer would be credited with it and deductions were made for purchases of clothing, opium, tobacco, etc. from a shop owned by the employer. If the labourer did not smoke opium excessively or gamble recklessly, he would eventually be free of debt, and could seek employment elsewhere. However, family and village ties tended to bind the labourer to his employer.

"Side by side with this system of personal recruitment was the system of recruitment through lodging houses. . . . Brokers in China recruited labourers . . . and brought them to Malaya or sent them through lodging houses which had connections with Hongkong, Singapore, and Federation lodging houses."¹ In Malaya, these lodging houses, established under the Native Passenger Lodging House Licenses, served and still serve as reservoirs of labour and as employment exchanges. A contractor requiring labour would go to a lodging house, advance payment for the debts of the labourer to the hotel keeper and thus bind the labourer to his service until the advance had been repaid. The advance was determined by the supply and demand of labour, and not by the actual amount of debt owing to the lodging housekeeper.

The system of recruiting by individuals and through lodging houses was brought to an end indirectly through the Aliens' Ordinance which came into force in Singapore in January 1933. The object had been to regulate the admission of aliens in accordance with the political, social and economic needs for the moment of the various administrations of Malaya. The idea was selective immigration to meet certain labour shortages. The Governor-in-Council was empowered to fix the quota of alien deck passengers monthly. At the outset, the quota was 1000 monthly, but later fluctuated from 500 to 6,000. The immediate result was an increase in the cost of passages for Sin Khehs due to higher prices by shipping companies and to the ticket speculators in China and Hongkong. This made importation of fresh labour very expensive for any employer, and so employers turned increasingly to the lodging houses for their labour supplies. In addition, there were increasing numbers of local-born Chinese entering into mining employment. Thus the system of broker-recruiting vanished.

Another unforeseen effect of the Aliens' Ordinance was the sudden influx of Chinese women migrants who did not come under a quota until after May 1938. The passages for women were cheaper, and shipping agents refused to sell male quota tickets unless some female non-quota tickets were also purchased. Thus, between 1933-1938 there was a migrational gain of almost 200,000 female Chinese deck passengers to Malaya. Previous to this, some women had come out either as workers or more often as wives of some labourer who had saved up enough money in Malaya to afford a wife being sent out from China by his parents. The Aliens' Ordinance now speeded up greatly the process of labour forces consisting of families rather than mere individual workers.

In 1940, with Malaya's two main industries, rubber and tin, almost at peak production, there was sufficient labour. The immigration quota was 500 men

1. Blythe, W.W. L., "Historical Sketch of Chinese Labour in Malaya", p. 91.

and 500 women monthly. There were many local-born Chinese in their teens. It therefore appeared unlikely that Malaya would ever need to import Chinese labour in the future as it did in the past.

The largest number of mining labourers recorded for a single year was 229,000 in 1913 while in 1939 it was only 73,000. Yet the total output in both years was almost identical - 50,126 tons in 1913 and 51,090 tons in 1939. This startling fact is explained by the increased application of machinery to mining. The first dredge had been introduced by a European company in 1912 and by 1929 there were 105 European owned dredges. Simultaneously, the percentage of European-owned output increased and outstripped Chinese production. In 1920, the percentage of European to Chinese output had been 36:64, but by 1940 it was exactly reversed, 64:36. The turning point was in 1928 when European companies operating 89 dredges accounted for 49% of the total output. In 1929, when the slump hit the industry, the Chinese accounted for 39% of the total output, and since then have never exceeded this percentage except in 1945 and 1946 when the European dredges were not fully working. In 1950, the percentage of European to Chinese output was 59.2% to 40.8%.

Because of the high price of rubber today and the employment it gives, it is seldom realized that the tin mining industry, in fact, was the chief factor in the development of Malaya from 1850-1930. The revenue from tin exports and opium imports practically made up the whole of the government's revenue up to 1910. And it must be remembered that opium was smoked by Chinese labourers who were nearly all in the tin industry. At no time before 1941 did the government revenue from rubber exports exceed that from tin exports in the Federation of Malaya (formerly F.M.S. and U.F.M.S.¹).

The principal methods of mining and recovering tin ore were and still are by dredging, gravel pumping, hydraulic mining, open-cast, small workings without machinery, and dulang washing. Dredges were and still are all owned and managed by Europeans and employ many Indian and Malay technicians as electricians, fitters, mechanics, chargemen, winchmen, etc. The Chinese miners used the gravel pump chiefly, and produced almost all their ore by this method. There were very few hydraulic, open cast, or lode mines. The old methods of mining without machinery still existed, chiefly in Perak, but the output was insignificant and these were all worked by Chinese and a few Malays. The special method of dulang washing had over 10,000 Chinese women with a few hundred Malay women in it pre-war.

Table I shows the increase in the number of units operating under the various methods from 1946-1950 and compares it to 1940.

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1. F.M.S. means the Federated Malay States, composed of the 4 states of Perak, Selangor, Negri Sembilan and Pahang before 1945. U.F.M.S. means the Unfederated Malay States composed of the 5 states of Johore, Kedah, Perlis, Kelantan and Trengganu before 1945. The former F.M.S. and U.F.M.S. and Perak and Malacca became the Federation of Malaya in February 1948.

TABLE I

<u>Number and Method of Mines Operating 1946-1950¹</u>							
Year	Method	Dredging	Gravel Pumping	Hydraul- icing	Open Cast	Misc.	Workings Without Machinery TOTAL
1940		72	733	34	22	9	1,021
1946		21	102	23	1	6	219
1947		46	323	24	10	27	478
1948		48	464	22	8	33	614
1949		50	518	19	5	18	660
1950		78	560	19	4	24	730

The introduction of cheap Japanese bicycles brought a change in conditions to mining labourers. Squatters rode to work on them; the labourers on the mines rode on them to the nearby towns and villages to buy supplies or for an evening's entertainment. The extraordinary increase in the number of female Chinese labourers during the late 1930s caused, it would appear, a transition from male to family labour. Marketing and cooking were often performed by the women. The proportion of labourers who could speak Malay seems to have gradually increased, and the system of direct employment was being successfully put into practice, to the benefit of the labourers.

In the mines, wages varied greatly, owing to the great number of occupations. On European mines, wages for Asians varied from \$60-\$120 per month in 1941 while the salaried staff on Chinese mines were paid less. Labourers under contractors received 80 cents to \$1 while those under Chinese miners were paid 50-70 cents per day of 8 hours work. This was because Chinese mines supplied free food whereas those under European companies and contractors had no free food. The average cost for food per head per month was around \$10 before 1941. Chinese women as well as Indian and Malay labourers on Chinese mines received no free food, hence their wages were higher. Male adults were paid the lowest rates of all, between 40-50 cents per day.

There had been a number of minor strikes caused by agitators because the war had caused a rise in prices whereas the rise in wages had lagged behind. Some employers gave a cost-of-living allowance while others raised the basic wages. When such adjustments were made, the labour situation became comparatively settled until the Japanese Occupation in 1942.

B. Inter-War (December 8, 1941 to September 1945)

As the British Armed Forces retreated down the peninsula to Singapore, the Military carried out a scorched earth policy in regard to mines. But in the hurry, not too much damage was done. The Japanese, upon occupation, resumed mining operations immediately.

In 1942, the Japanese administration managed European properties, but in 1943, these were transferred to Japanese firms which were government supported. Success was short-lived. After 1943, the output dropped because of rising

1. Figures for Table I from Annual Reports 1949, page 9 and the 1940 figures from Annual Report of the Mines Department 1946, page 8; 1950 figures from the Statistical Bulletin of the Mines Department, Federation of Malaya.

operating costs; shortage of replacement equipment and of labour. The best areas or pockets had been picked and the personnel was deficient. Theft of ore and equipment was rife, and as the anti-Japanese movement became stronger around mine areas, sabotage increased.

TABLE II

A Summary of Tin and Tin Ore Production During
the Japanese Occupation 1942-1945¹

STATE	Y E A R				TOTAL PRODUCTION Tons
	1 9 4 2	1 9 4 3	1 9 4 4	1 9 4 5	
	Tons	Tons	Tons	Tons	
Perak	10,726i	17,152	6,072	2,218	36,168
Selangor	4,450	7,432	2,580	680	15,142
N. Sembilan	425	1,342	560	119	2,446
Pahang	131	53	2	-	186
Johore	-	-	28	99	127
Malacca	5	1	1	-	7
Kedah	7	7	7	7	28
Perlis	3	3	3	3	12
Trengganu	1	5	56	26	88
Kelantan	-	-	-	-	-
T O T A L :	15,748	25,995	9,309	3,152	54,204
Japanese \$ Prices: (per ton)	806.40	1,142.40	<u>Mid-1944</u> 2,268.00	<u>Mid-1945</u> 9,240.00	

Note that Perak consistently produced practically 2/3 and Selangor 1/3 of the total output. One point of importance was that most of the ore produced by the Chinese came from women dulang-washers. Their number doubled the pre-war figures because it became easy to wash for tin illegally. The production from Chinese gravel pump mines was insignificant, the mines preferring to sell their equipment to Japanese firms or turn it to some other use.

As for the Chinese labour force on mines, nearly all became unemployed after 1943. There were forcible deportations of labour to the Siam Death Railway.

1. Figures from "The Annual Report on the Mining Industry of Malaya" of the Mines Department Federation, 1946, pp. 22-23. Ore taken at 72% assay.

This prompted the abandonment by the population of the more settled areas, the migration to or near the jungle, and the cultivation of foodstuffs. Those with wife and family took to rice cultivation in newly cleared areas, which the Japanese encouraged. Vegetable farming and poultry rearing became the most popular occupations for labourers. The more able-bodied became trishaw-riders, those with a business acumen took to hawking and vending, and still others became workers in Japanese factories and firms. Many new Chinese industrial concerns sprang up to supply local needs and this was an additional source of employmente

The food shortage and the great inflationary trend caused much suffering among the working classe and many took to the jungle and became members of the Malayan Peoples Anti-Japanese Army (MPAJA). Most of these guerillas were to be found in the chief mining areas, e.g., Kampar, Serdang, Jelebu Manchise etc. These same areas are now notorious for communist activities.

C. Post-War (September 1945 - 1951)

Even before the war ended, a planning group had devised schemes for rehabilitation of the mines. A Tin Inspection Committee under Mr. Storke was appointed and an immediate survey was made. The Storke Committee recommendations were followed. European mining companies placed orders for equipment with British firms in 1946 and Chinese mines either bought or rented unidentified machinery from the Custodian of Enemy Property. Financial assistance was provided by the Government, and the Colonial Office placed orders for mining equipment with British manufacturers. Scarce materials were allocated and rationed by the Technical Adviser's Office in Kuala Lumpur. The great problem of rice was tackled by giving additional "heavy" rations to mine labourers.

Progress towards recovery fell behind the Storke estimates in 1946. There was shortage of coal and electrical power. Further progress was made in 1947 but the high production cost and material shortage retarded recovery. Of the orders for equipment, only 50 to 60% were shipped to Malaya on schedule from Britain. The increase in the cost of living exceeded the rise in wages and labour tended to be restive and dissatisfied. There were agitators and several strikes were instigated. Some workmen adopted a "go-slow" policy.

In the early part of 1948, labour became unreasonably aggressive and there were several strikes. Intimidation of mine owners and of those workers who refused to go on strike or toe the agitators' line took place. This and other terrorist activities resulted in the Emergency in June 1948. The Communist leaders went underground and labour unrest disappeared from the mines.

Subsequently, the terrorists made attacks on mines and mining personnel, destroying machinery and other equipment. Murders of Kepalas took place. Miners were kidnapped and held for ransom. Although these activities didn't stop mines in operation, yet it discouraged or prevented further expansion in certain areas. Supervision was reduced and the efficiency of the labour force declined.

The inauguration of the Chinese Mines Defence Scheme in Perak, and later in Selangor, saved the situation. Between August and October, some 152 police posts manned by 1,528 special constables, were built on Chinese mines. Most of the special constables were Malays and some Chinese. The specials are paid monthly by the Government, though they may get a little rice or money from the miner. The number of specials applied for by the miner varies with the locality and the importance of the mine, and the specials may be employed by individual miners or by a group of miners on a collective basis.

Despite these adversities, progress continued. Two great factors aiding recovery were the high price of tin and the liberal loans made by the Government. Loans to European and Chinese mines total \$49.3 millions and \$12.8 millions respectively up to 1948. By December 1949, when no further loans were permitted the position was as follows:

Summary of Financial Assistance to Mines¹

Financial allocations available on December 31st 1949
Tin Mining Industry

(a) From Colonial Office and Financial Secretariat:	\$ 49,609,525
(b) From Industrial Rehabilitation Finance Board:	10,438,000
(c) From Chinese Tin Mines Rehabilitation Loan Board:	
(i) Cash Advances:	14,107,534
(ii) Allocation from "Machinery for Mines Scheme":	4,359,602
	<u>\$ 78,514,661</u>

Of the \$78 millions of loans granted, \$60 millions went to European companies, \$18 millions to Chinese mines. These were at very low interest rates, and were to be repaid by installments over a period of years. Only pre-war miners were eligible for such financial aid since it was meant for rehabilitation.

With the inspection of the Emergency Regulations, labourers became more settled. The number of mines operating increased from 660 in 1949 to 730 in 1950. Output rose from 54,910 tons in 1949 to 57,537 tons in 1950. The labour force however did not increase proportionately, being 47,107 in 1949 and 47,244 in 1950. This was because the rubber boom drew many mining labourers away from the mines to work in estates on a crop-sharing basis. Almost all the Chinese miners interviewed complained of labour shortage. One solution has been the increasing use of women labourers for unskilled work which was formerly performed by men.

The prospects of increasing future production have been decreased because of lack of prospecting of new lands. For the last 20 years, the exhaustion of ore bearing ground by mining has been more than its replacement by new prospecting. There has been little prospecting from 1946 to 1951 due to fear of the terrorists. As an example of the dangers one can quote The Straits Times of March 25, 1951 where Auster planes were used to fly out wages to mining personnel in a mine in Kajang and had to fly out the ore for sale to the smelters.

The cost of diesel oil and electricity charges rose after the devaluation of the £ sterling in June 1949, and these increases largely offset the gain from the modest increase in the price of tin metal which followed upon devaluation. It is true that quite a number of Chinese miners were operating at a loss before November 17, 1949, when the British Ministry of Supplies freed tin control. Since then, and especially after the Korean hostilities had begun, nearly all mine operators have been making profits. Due to the inflationary trends and the shortage of labour, the MMEA² recommended a Tin Price Bonus Scheme³ for mine labourers and this was accepted.

1. Figures from "The Annual Report on the Mining Industry of Malaya" of the Mines Department, Federation of Malaya, 1949, p. 29.
2. MMEA is the Malayan Mining Employers' Association.
3. See later section on wages for details.

Before the de-control of tin by the Ministry of Supplies, the prices had been pegged down to £550 - 554 per ton for 1949. This was very satisfactory since the 1941 price had been £250 - 275 per ton. For the first half of 1950, there was little fluctuation in price - from £590 - 620 per ton. But with the Korean War, the U.S.A. once more began to stockpile tin and when other countries followed suit, great fluctuations in price occurred. On November 8, 1950 the price reached £1,280 per ton. This seemingly fantastic price was exceeded many times in 1951. It seems that the highest price ever recorded was in the Singapore market on February 14, 1951 when it reached \$783 per picul or about £1,540 per ton. This is and will be the highest price ever, say the experts.

Such fluctuations breed uncertainty and is unhealthy for the stability of the industry. The U.S.A. which is Malaya's chief customer, has accused Malayan miners of "gouging". About half of Malaya's tin output is sold to the U.S.A. Besides having a large stock pile, the U.S.A. also has an agreement with Bolivia, so that her supplies are assured. As an indication of its monopsonistic power, when the Reconstruction Finance Corporation announced its intention to cease stockpiling purchases in March 1951, Singapore tin prices fell from \$675 per picul on the 6th to \$541.75 per picul on the 9th of March. Talks between the representatives of the chief tin producing countries and the United States representatives in Washington in March 1951 brought no agreement. Malaya was represented by Colonel H. S. Lee in the British delegation. However, in the early part of 1952, a team of U.S. representatives visited Malaya and the price has been fixed at \$1.18 (U.S.) per lb or about \$587 (Straits) per picul.

TABLE III

The Progress of the Mining Industry in Various Aspects 1946-1951¹

Year	No. of Mines	Output (tons)	Average Price Per Ton £	Export Value \$	Duty \$	% Total Revenue	Labour Employed
1940	1021	80,651	275		23,317,512	23.7	77,000
1946	219	8,432	322	24,747,046	4,968,341	2.8	23,026
1947	478	27,026	427.6	99,057,209	13,461,879	5.1	39,362
1948	614	44,815	551	202,115,650	29,429,689	10.6	46,861
1949	660	54,910	605.8	261,415,892	38,509,135	12.5	47,107
1950	730	57,537	745.8	314,000,000	50,932,569	16.1	47,244
1951	740	57,167	1080.2	498,000,000*	176,244,883*	24*	51,400*

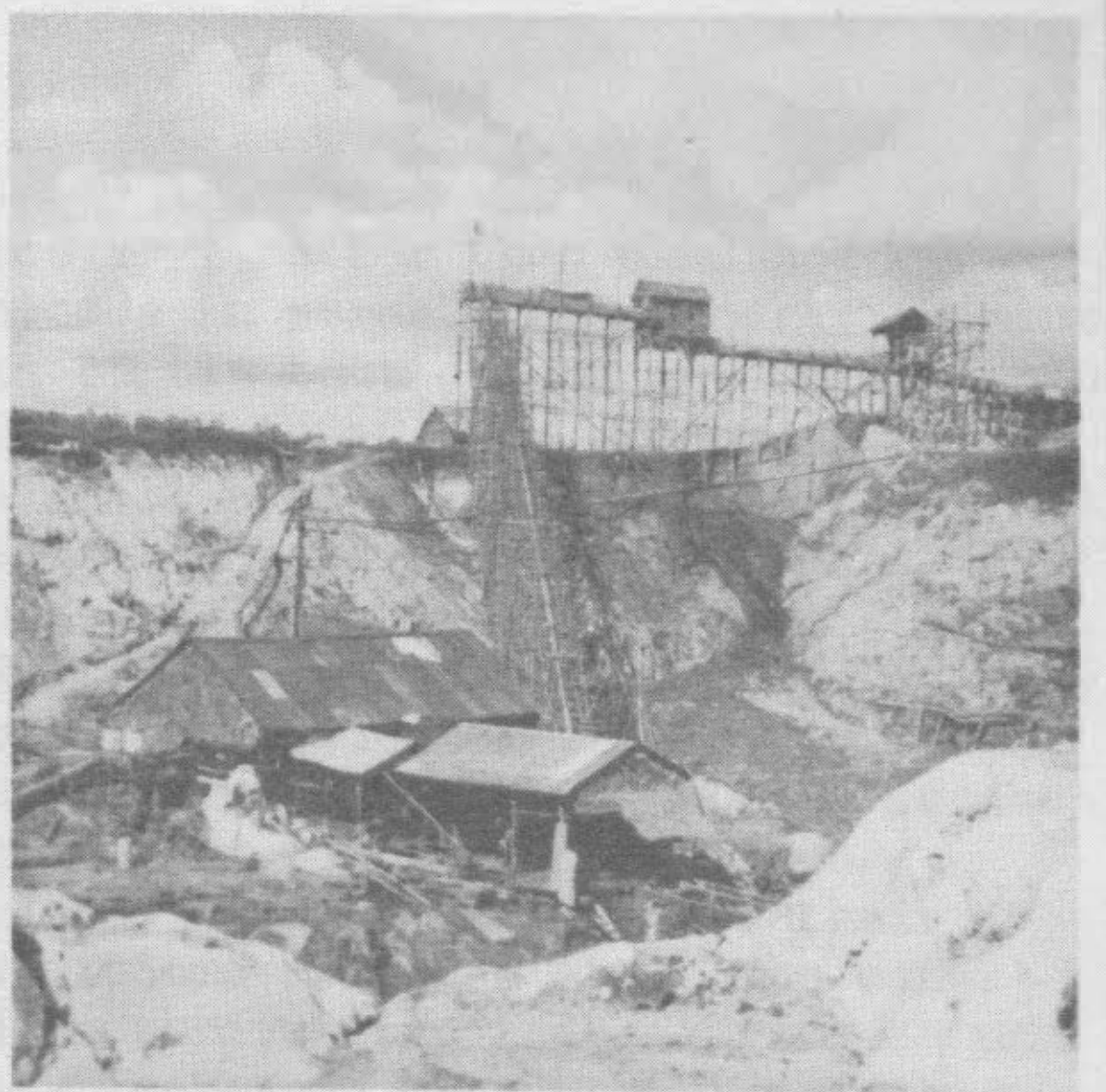
1. Figures for Table III from Annual Reports of the Mines Department, Federation of Malaya, 1946-1949 and figures for 1950 from the Statistical Bulletin of the Mines Department, Federation of Malaya, 1950.

* Signifies estimates.

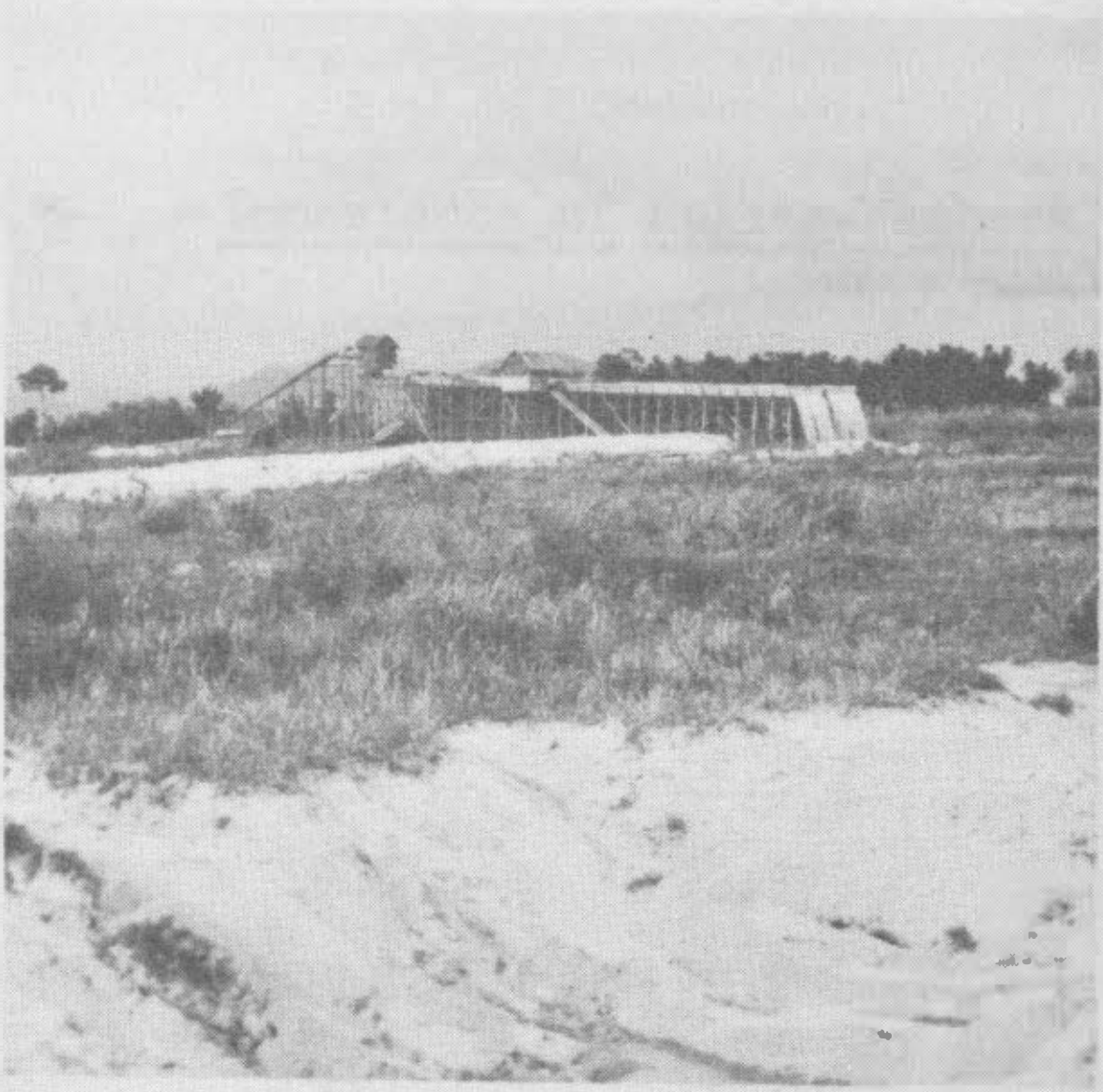
1. Partial view of a tin mine Kongsi and the road approaching it. Note the narrow width of the road and the long grass flanking either side.
2. A complete view of a palong with the tailings shown as a white splash at the right-hand top corner. The palong-hut is in the middle of the structure while to its left is the waste-chute. Note the trees in the back and the grass and white sand and clay in the foreground.
3. Front view of a Kongsi porch. The lettering is typical of Chinese mines. The roof is of attap, the side walls of planks and bamboo. The kitchen is to the right next to the porch.
4. Picture shows links between engine shed, gravel pump pipe and palong. The engine shed is about midway between the bottom and top of the mine. The gravel pump pipe rests on the thin wooden scaffolding and ends at the head of the palong shown by the small flag. o
5. View of a mine bottom showing the outcrops of hard rock and the hillside which has been attacked by monitors to break up ore-bearing earth which flows along the narrow sloping channel to the sump. The pipe lines feed water with compressed power to the monitors.
6. Another view of a mine bottom with labourers at work. Note the jets of water from the two monitors and the small hydraulic pipe which concentrates at one spot to break up the ground.



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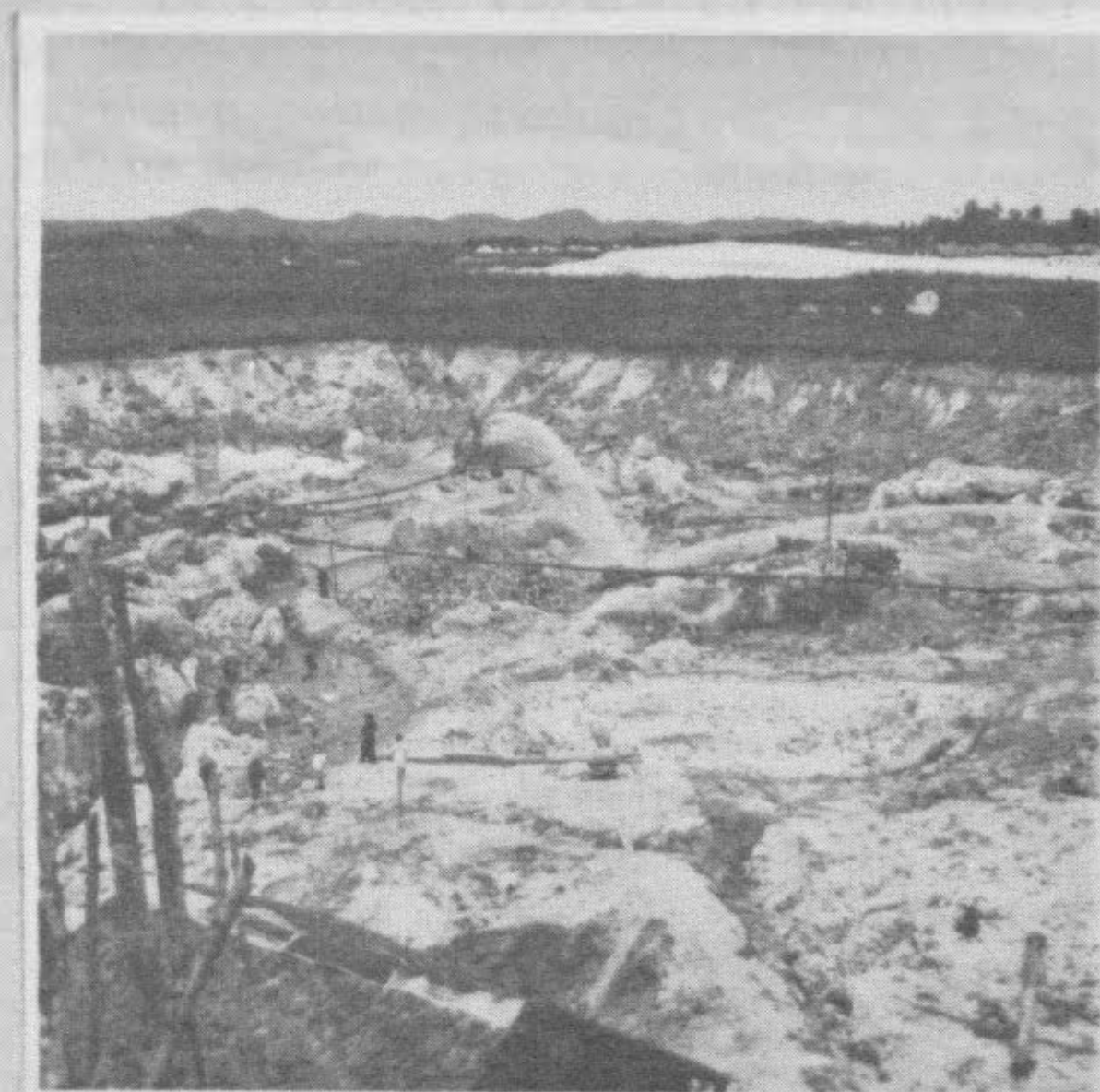
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CHAPTER II. INDEPENDENT MINING LABOUR¹

Dulang-washers²

Dulang-washing is essentially a method of recovery, rather than a method of mining. By the skillful use of primitive methods in streams near operating mines and in abandoned mine holes the small amounts of tin that escape concentration on the mines and are washed away with the tailings are to a large extent saved. Because the output from panning forms only a small proportion of the total production, usually between $\frac{1}{2}$ - $\frac{1}{3}$ %, the importance of this class of mining labour has always been overlooked. It has seldom been realized that they form a very important component of mining labour. In 1929, still a prosperous year, dulang-washers constituted less than 9% of the number of tin mine employees. But by 1932, just about the depth of the depression, they were 22% and had experienced a slight absolute growth. Nor did the dulang-washers' annual money income decline as rapidly as did the tin price, for they managed to increase their production from 1929 to 1931; thus their real income remained about the same. It would appear that the dulang-washers tend to thrive in crisis; - for, as can be seen from the following table, they greatly increased both numerically and relatively in the early post-war period.

TABLE IV

Importance of Dulang-Washers in the Tin Mining Industry 1936 - 1950

Year	Total no. of Dulang-washers	Total No. of Workers in Tin Industry (exclusive of Dulang-washers)	Total Product of Dulang-washers:	
			piculs ³	tons
1936	11,809	80,218	11,027	565
1938	11,327	71,487	22,597	1345
1946	22,973	23,026	48,000	2859
1948	20,281	48,861	54,052	3217
1950	18,702	47,224	54,904	3292

The above table shows that an increase of twice the pre-war figure in the number of dulang pass holders has occurred during the post-war period, while their annual output of ore has increased by more than twice the pre-war production. The increase in output and in the number of pass holders would have been even greater were it not for the fact that certain areas where dulang washers used to wash for ore have been declared under curfew or restricted areas by the police. The

1. By independent mining labour here is meant all labour which is not paid on a monthly basis or at the rate of so much perokung of 8 hours. It therefore includes dulang-washers, workers on piece-rates, on contract, tributors, ore-dressers, tailong-workers, etc.
2. Because of their intrinsic difference, dulang-washers are treated separately from all other types of independent mining labour discussed below.
3. 1 pioul or pickul = 133.3 pounds (16.8 piculs = 2240 pounds = 1 ton). See Appendix.

Warden of Mines for Johore, when interviewed, was asked why there had been no output from Johore pass holders and his answer was that the police had put a curfew on the areas where dulang-washers lived and worked. It is thus to be noted that the number of dulang pass holders has steadily declined yearly from 1946 to 1950, while the working force in the mines has shown a steady increase. This may also be explained by the drifting of women from dulang-washing to work in the mines or rubber estates because of higher wages.

The increase of dulang-washing attains further significance when it is realized that production from all other methods is still behind its pre-war output, Malaya's total output in 1950 being only about $2/3 - 4/5$ of the pre-war figure. The importance of dulang-washing to the mining industry can be seen also from the fact that the ore extracted by dulang-washers is ore that cannot be profitably recovered by any other method, and which would otherwise be lost.

Dulang-washers were mostly Chinese women pre-war, with a few hundred Malays and a handful of Indians. The Chinese women have not only remained the most numerous but have increased considerably in proportion to the total number since the war. In 1938, there were 10,108 Chinese, 806 Malays and 115 Indians. In 1950, there were 18,167 Chinese, 445 Malays and 90 Indians. Of the Chinese women dulang-washers, the most numerous are Hakkas, with the Cantonese being next. These women invariably live in or around mining areas, being either squatters or farmers and own their own attap houses.

Dulang-washers, in order to win ore, have to obtain a dulang-pass or license from the Mineral Ores Department for which an annual fee of \$1 is charged. These passes are issued only to women. While there is no upper age limit for applicants the lower age limit must not contravene the Labour Ordinance which has a minimum age for child labour. As it is illegal to wash for ore without the pass, it must be brought to work with each dulang-washer; lack of such a pass upon inspection makes the holder liable to a fine and further contravention may result in the cancellation of the license. However, since there are over 20,000 pass holders, and as they usually work in groups of 5 to 10, spread over hundreds of mines and streams, often in bandit-infested areas, little check is carried out by the under-staffed mines department. Although it is specifically stated that passes are non-transferable, a pass-holder who does not feel like working for some time may loan or "rent" out the pass to another woman for which either a percentage of the ore recovered or a per diem "rent" is charged.

The dulang-washer can only sell her ore to a licensed ore-dealer. Also, the amount each is permitted to sell under her pass is limited to a fixed amount per month. When the price is low and a glut is likely, the quota for each pass-holder is reduced considerably, but when the price is high, and the demand good, this monthly quota is increased.¹ The passes are numbered, and the ore-dealer has to enter his purchases from pass-holders against their number. In most cases, the women produce and sell their full allocation. If they recover ore beyond

1.

<u>Year</u>	<u>Monthly Quota of Katties² Allowed Each Pass Holder</u>
1932-1934	15
1935-1938	20
1941	25-30 (an estimate)
1948-1949	25-45 (variations occurring in different states)

2. 1 Katty or Katti = 1-1/3 Pounds. (100 Katties = 1 Picul or Pickul). See Appendix.

7. Two dulang-women washing for ore in a stream. Note the size of the pan held up by the woman in the front. The ore which has been washed is being poured into a half coconut shell. The posts and barbed wires behind the grass is part of the police security measures against terrorists.
8. Another group of dulang-washers at work. The large ~~straw hat~~ not only serves as a hat but can also be used as a sun-shade by propping it up on a stick as shown. The white cowl then serves as protection against the sun. Note their long sleeved black clothes.
9. Women ore-dressers at work in an ore-dressing shed. The wire netting encloses the shed so as to prevent theft. The women are sitting on little wooden stools. The wooden tubes contain the undressed ore which is to be washed. The black pile in front contains slags and impurities.
10. Two female labourers pushing a wagon containing stones from the waste-chute to a dumping place. The wagon has wheels which run on rail.
11. A woman labourer carting off stones and other waste material in a wheelbarrow.
12. A woman grass-cutter carrying away two bundles of grass which she has cut and tied up. She is paid by the bundle or by the weight.



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their quota, they either stock it up for the next month, or sell it under another pass holder who has not produced her quota. They may even sell it to the miner through the clerk or Kepala in the Kongsi, as some miners are also licensed ore-dealers. The fact that there is a surplus implies usually that a woman has spent more days or hours at panning, and therefore less at her alternative occupations.

TABLE V

Dulang-Washers 1946-1950
Federation of Malaya

(Source: Statistical Section, Department of Mines, Federation of Malaya)

Year	State	No. of Dulang Pass Holders	Permissible Sales in Katties	Annual Av. output per holder in piculs	Estimated Annual Av. Income per holder
1946	Perak	13609	30-45	-	-
	Selangor	6476	30-45	-*	-
	Others	1362	30-45	-	-
Total: Federation		21447			
1947	Perak	14303	45	2.04	\$204
	Selangor	5480	45	1.88	\$186
	Others	1326	45	.25 - 1.94	\$25 - \$194
Total: Federation		21109			
1948	Perak	13927	45	2.40	\$336
	Selangor	5225	45	2.85	\$399
	Others	1145	45	.72 - 2.30	\$92 - \$322
Total: Federation		20297			
1949	Perak	13859	25-45	2.92	\$423
	Selangor	4544	30	3.35	\$485
	Others	903	30-45	1.08 - 2.47	\$156 - \$358
Total: Federation		19306			
1950	Perak	13650	25	2.80	\$532
	Selangor	4357	30	3.10	\$589
	Others	695	30-45	1.38 - 2.40	\$233 - \$456
Total: Federation		18702			

* "Not available" designated by dasho(-).

These women lead a very hard life - especially considering that most of them are past middle age - usually being bent double under the heat of the sun often immersed up to their knees in the water from 6 a.m. to 6 p.m. daily. Unfavourable weather conditions, sufficient tin-ore winnings for the day, or disgust with the poor results achieved in her area may make her cease panning before dusk. Nor does the dulang-washer pan every day in the month, for her quota may

be reached between the 7th and 15th day. For the rest of the month she turns to her alternative occupations. She may either tap rubber or be a weeder, if she is used to such work and if she stays near rubber estates. This is especially lucrative at present due to the high wages in the rubber industry. But since most dulang-washers stay on or around the mines, they usually take on work in the mines at a daily rate of so much per kung,¹ or at a piece-rate of so much per task or picul in the case of a grass-cutter, stone-carrier, or tin-ore-dresser. Many dulang-washers own farms on which they grow vegetables and fruits, and rear pigs and poultry.

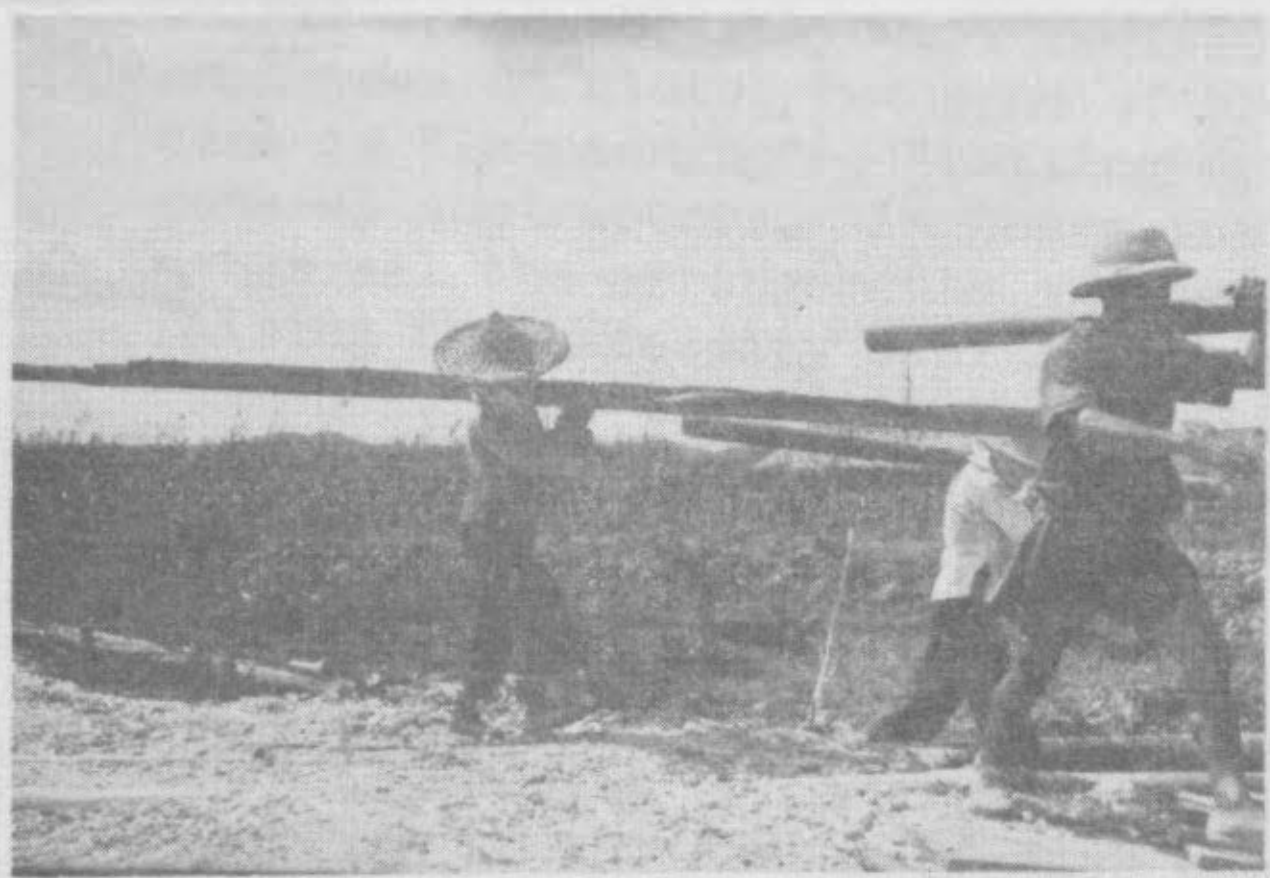
Most dulang-washers are married, but many have their husbands in China. The spate of Chinese female immigrant labour into Malaya began when the Aliens' Ordinance imposition coincided with the failure of the silk industry in China in the 1930s. Between 1933 and 1938 nearly 200,000 Chinese women, mostly peasants and factory workers, emigrated to Malaya. These had come to work in order to remit money home to support their husbands and children in China. The dulang-washers came among this group. As a result of the restrictions and the outbreak of hostilities in 1939-1945, these women could not return to China nor could their husbands rejoin them in Malaya. The political instability and fear of infiltration of Communist agents during the post-war period has made it very difficult for new immigrants to enter Malaya, and has, as a result, enforced a long separation of these women from their husbands.

Most dulang women are illiterate, but their lack of education has not had many ill effects on their business acumen and thrift. They lead a very hard life, and realize that they cannot remain as active as ever in their old age. Therefore, with characteristic foresight, they prepare in advance for their old age and subsequently reduced earnings. When they are in their 30's or early 40's, with the money they have saved by sheer frugality and careful management, they purchase unwanted babies from very poor families or unwed mothers. This illegal "business" transaction is justified morally in that the dulang-washer is oftentimes better able to care for the baby than her natural parent. These adopted children are all girls (an exceptional instance since Chinese usually prefer to adopt boys) and are brought up in the farmhouse, rarely being sent to a regular school. At an early age, probably under 10, they follow their fostermothers to work on the mines or streams. Although they are still incapable of any real work, they become acquainted with the sight and nature of their future occupation, and are allowed to handle the tools and equipment in order to acquire skill in their use. It is seldom that the children are oppressed or ill-treated for one does not quarrel with one's future rice-bowl. Thus the children are initiated to their life's work at the right age by the correct method, and show no distaste for their work when they grow up. A dulang woman may have as many as half a dozen adopted daughters, usually all of different ages. When they grow up and are capable of earning, the dulang woman is more than amply rewarded for her care and forethought, as the adopted children are hard-working, thrifty and filial, usually giving every cent of their earnings to their foster-mothers. If and when the time comes for one of the daughters to be married, the foster mother may give a small dowry and a feast to celebrate the occasion and to save face. Then she looks for another baby for replacement.

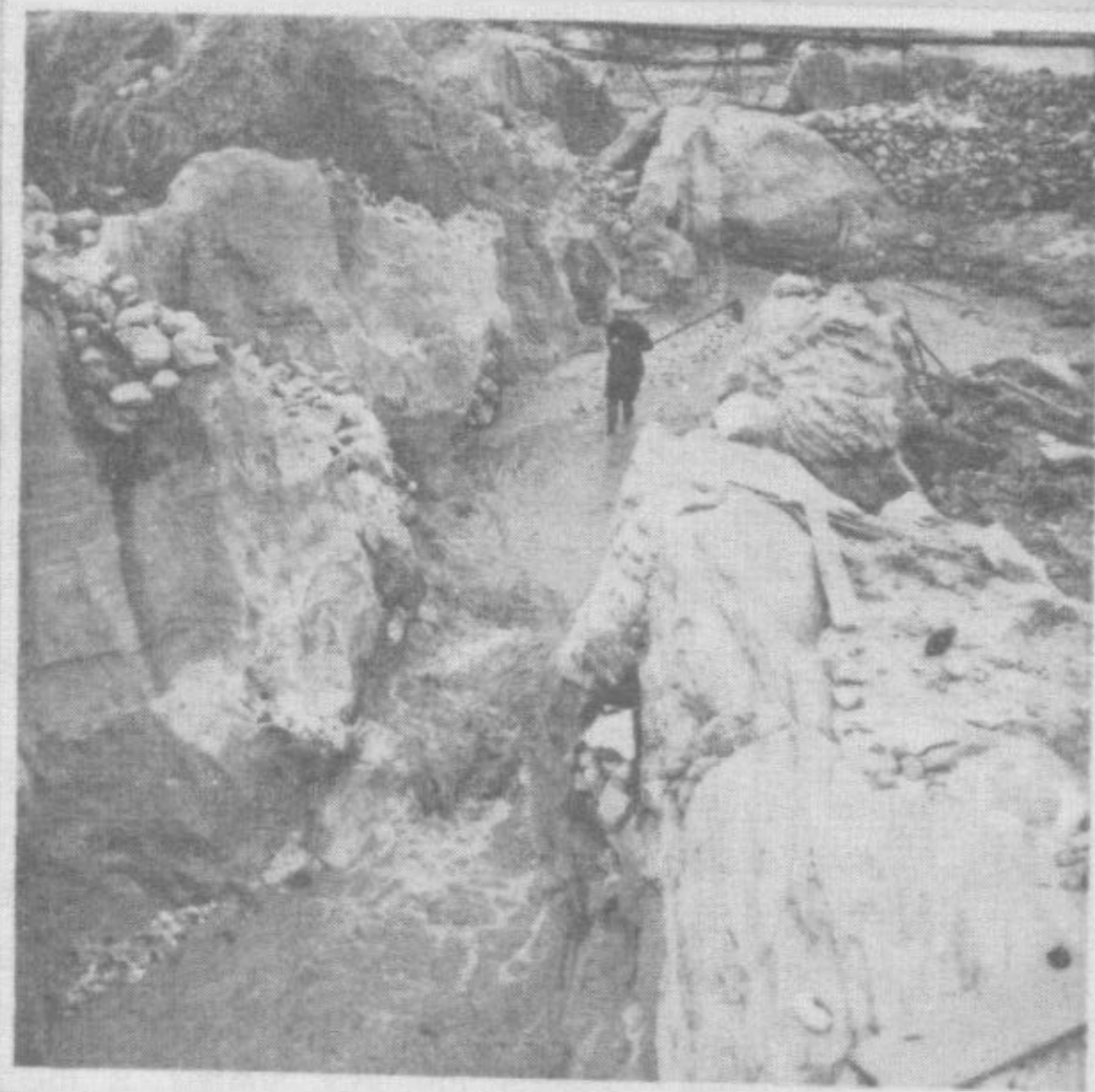
It is erroneous to believe that all dulang-washers are poor. In fact, many of them are quite well-off in spite of their modest appearances and their tumbled-down shacks. Some have shares in Chinese mines, while others have been known to give large loans to Chinese miners whom they trust. An unusual feature is that such wealthy women have been known to labour in the mines in which they have a large share.

1. Kung: a working day of 8 hours.

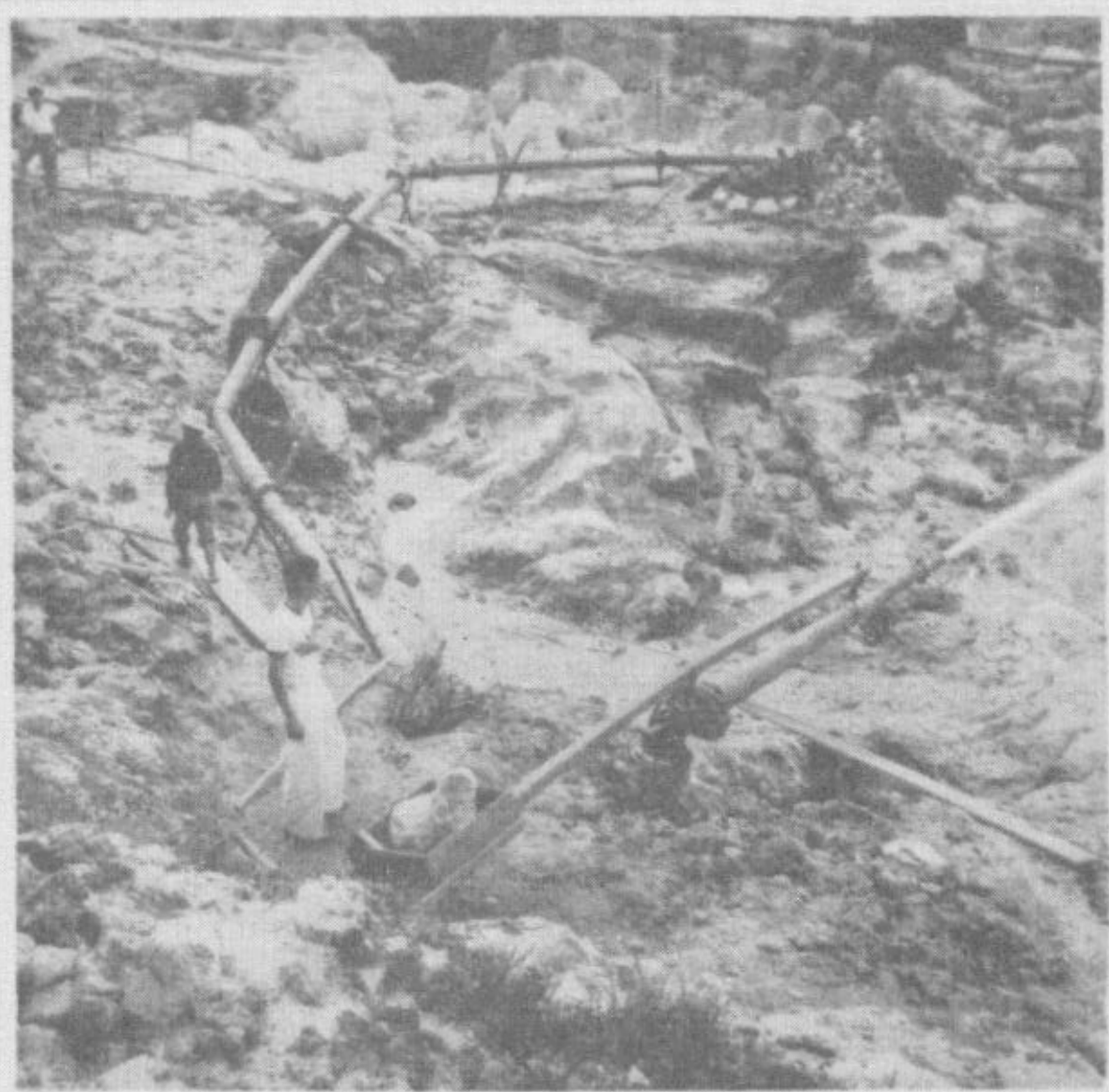
13. Men and women labourers carrying planks over their shoulders. Because of the rubbles they have rubber-soled canvas-top shoes on. Hats are necessary due to the intensive heat.
14. A monitor-man in black shirt leaves his monitor unattended rather than answer writer's questions. The rocks in the box act as a weight which makes it easy to swing the monitor nozzle into any angle or position. Planks are laid over crevices or puddles.
15. A monitor man at work. Note the huge hard rocks. The piece of attap or cloth to the left of the labourer is stuck in as a sun-shade. There is a little wooden stool on the plank where he is standing.
16. A woman labourer using a hoe to deepen the channel and to dig up any rocks which obstruct the flow. Old timber and rocks are then piled up by the sides of the channel.
17. More labourers at work in the channel. One man is using a crow-bar to break up rocks while the other man picks them up and lays them on the sides. A piece of plank has been struck into the side to direct the water containing tin-ore along the right direction towards the sump.
18. The man seated here is a Tsap Kung in charge of the sump. The piece of cloth protects him from the sun. The long slender iron bar is used to test the depth of the sump. The mouth of the pump-pipe is immersed in the sump and sucks up the tin-bearing ore and water on to the head of the palong.



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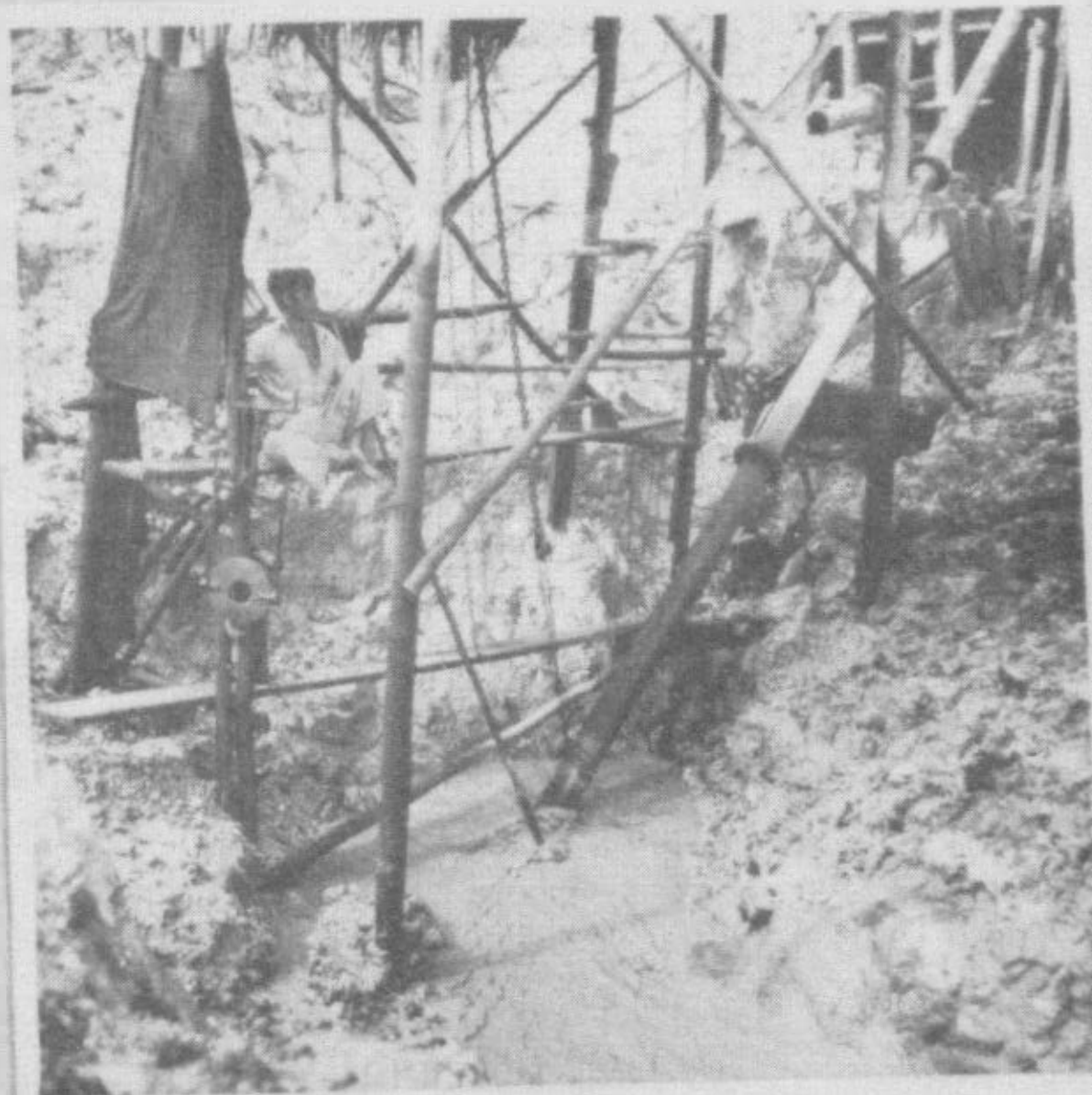
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Dulang-women not only work individually on their own account or part time as employees on mines, but some of them are employers of other labour, as is the case in "lampanning"¹, "tailing"², "tendering for amang"³, or when they are general contractors. In these instances, the dulang-woman who is the 'leader' makes all the arrangements and agreements with the mine owner, oftentimes raising the necessary capital to pay a deposit before the work is allowed to commence. She then distributed the work among the dulang-women labourers and sees that the time limit which is usually set for these small workings is met. When the ore is sold and the contract ended, the money advanced by the leader, and sometimes by the workers, is first repaid to the contributors; 10% of the remainder is taken by the leader for her influence in obtaining the contract and her skill in estimating correctly the amount of ore recoverable, and that which is left is split among the rest (among whom the leader is counted as one), according to the number of days each has worked if all have contributed equal shares of the initial outlay. If the advances have been unequal, this is taken into account in the sharing of the profits. Usually the women supply their own food individually, but if it is cheaper and convenient, the food may be cooked and supplied collectively, the expenses incurred being deducted before the sharing of profits. The work may last from a week to 20 days, but rarely exceeds a month.

If a loss occurs in any of these ventures, the dulang-washers will go in groups daily to complain to the mine manager, Kepala, or even the mine-owner. They will pester the miner for a refund or some form of compensation, and will persist in making themselves a general nuisance with their cries and lamentations if the miner is adamant. To finally get rid of them, the miner may have to relent and give way to their claims if these are justified. But when they have made a large profit and are perfectly satisfied, they will still insist that they barely covered their costs, and will never admit or divulge the extent of their profit, a characteristic attitude of the average dulang-washer.

Piece-rate and Contract Labour

On Chinese mines, besides the monthly salaried staff, almost all the labourers are paid on a daily rate of so much per kung of 8 hours. Very few male labourers are paid at piece-rates, and almost all stay in the Kongsi house and are fed at the miner's expense. This is in direct contrast to the female labourers on mines who are usually paid at piece-rates and who have to supply their own food and stay in their own attap houses or shacks.

-
1. "lampanning": The lampang or "lanchute" is a small sluicing mine in which the water is brought in a small cascade by pipes to the ore which is contained in a sloping channel flanked by boards, and the water washes away the lighter impurities leaving the heavier ore concentrate to be panned.
 2. "tailing": Tailing is the ground or earth containing some escaped tin ore which flows over the end or tail of the palong.
 3. "tendering for amang": Tendering for amang is to offer a bid of a lump sum in cash to gain the right to recover the tin ore contained in the amang, which is the heavy black mineral impurity left after ore dressing.
 4. Kepala: Overseer or Headman.

A. Ore-Dressers

However, ore-dressers, who are mostly men, are nearly always paid at piece-rates, and are employed by an ore-dressing contractor. A miner usually prefers to give the contract to the same contractor each time his output has to be dressed.¹ The ore-dressers are paid by the contractor at a slightly lower rate than the rate offered by the miner to the contractor, who may or may not participate in dressing the tin-ore. As these **dressers** are "casual labourers" they are not fed or housed by the miner. Also, since the job of dressing may take only 2 to 3 days to finish, and a mine cleans its palong² usually only once a week or 10 days, this means that the same ore-dressers may work only for 6 to 10 days on a mine each month. But their contractor, being a clever man and usually well-known in the mining area, is able to **procure** jobs for them in various mines successively since different mines **have their palong** cleanings on different days of the month. Thus it is possible for a tin-ore-dresser to be employed almost the whole month, with his income **varying** between \$100 to \$200 per month, depending on the speed with which he can dress the ore. The contractor is able to make more because he usually controls a number of labourers whom he contracts to various mines, getting a cut on every picul of ore dressed by his labourers. In view of the present labour shortage,³ his labourers are given a fair deal and not much exploitation takes place. These labourers and their contractor do not benefit from the Tin Price Bonus Scheme.⁴

B. Construction Labour

Another type of casual labour that is employed by mines is construction labour, for when a miner wants to put up a building or effect repairs to any existing structures, he does not use his daily-paid mine labour. He obtains a contractor, supplies all the materials and gives the specifications, and agrees (usually verbally) on a certain lump sum for the completion of the "task" at a specified date. The contractor then brings in his gang of coolies to do the job, makes his own separate agreement with them, supervises the work, and pays them a daily rate⁵ which leaves him with a profit from the contract. The miner again does not supply food or lodging for such casual labour, and if the food is supplied by the contractor, an account is rendered and the expenses deducted from the wages of the labourers.

If the transaction should prove a loss, contractors have been known to abscond with the money they receive from the miner without paying their labourers, since there is no contact or understanding of any kind between the miner and the contractor's labourers. This may happen if the contractor is an unscrupulous rogue, or if he has made wrong calculations. But if the loss arose from bad weather which prevented work from going on as usual, and for which no man can be held responsible, but for which the contractor still has to pay his workmen, his request for an additional supplementary payment is usually acceded to by the

1. **dreasing**: cleaning or washing.

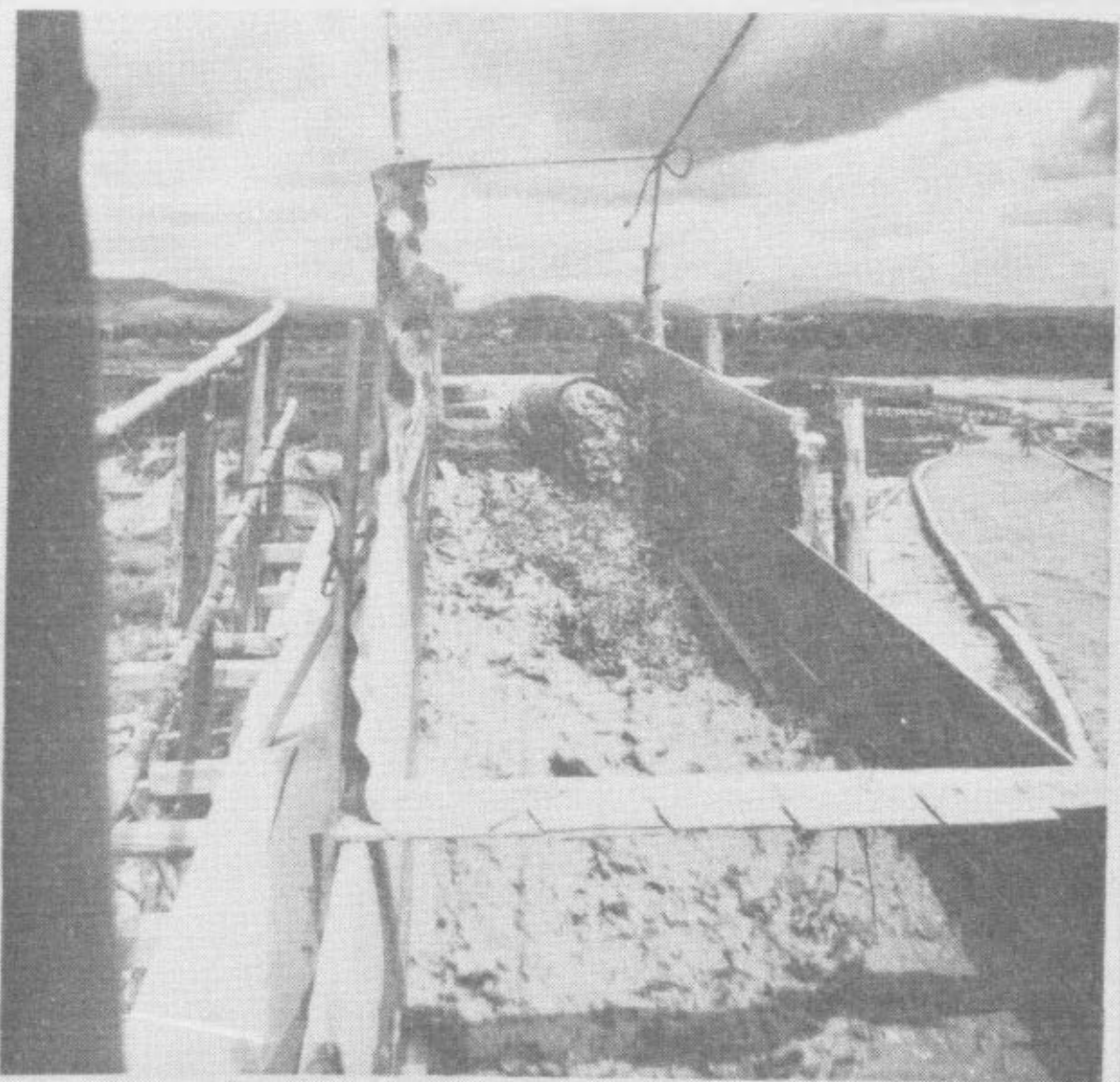
2. palong: sloping fume or a long raised wooden concentrating shutee

3. See below, page 30.

4. See below, page 32.

5. Because of the tin boom in December 1950, palong construction workmen have been known to demand as much as \$8 - \$10 per day, whereas previously they worked for \$3 - \$4.50 only.

19. The head of the palong with the end of the gravel pump pipe. Tin ore bearing earth mixed with water is flowing out of the pipe. This is the highest point on a palong.
20. View of a three-lane palong from the top. The electric installations denote that sometimes night work is carried out. The structure in front is the palong hut, the one in the distance, the waste chute.
21. A labourer steps out of the waste chute hut. In the front is a palong worker who uses the piece of wood to direct the flow of water and material along the lanes.
22. A labourer in the waste chute hut applying a rake to remove the stones stuck in the iron grates. This iron grate acts as a sort of sieve so that only small stones and tin ore bearing earth pass through on to the lanes of the palong. Note the cigarette stuck on top of his ear.
23. The tin ore with amang and other impurities is seen clearly on the lanes of the palong. The tops of some of the horizontal bars can be seen, because the engine has stopped and no more water is being pumped up. This is the time to clear the palong of its ore.
24. The horizontal bars are first removed. Then spades and changkols or shovels are used to put the tin ore into wooden tubs which are sent to the ore-dressing shed to be washed. Note the great number of labourers on this three-lane palong.



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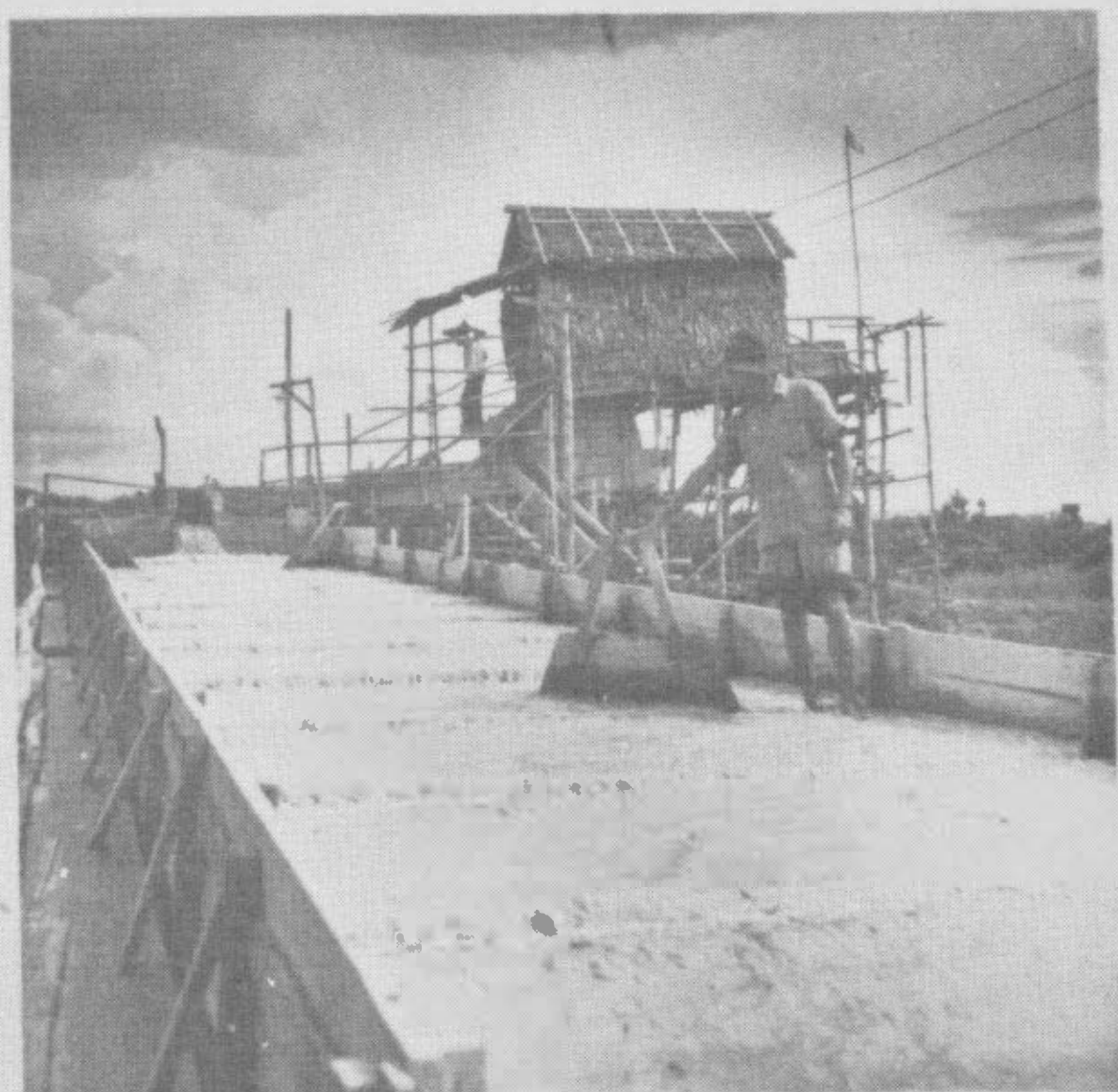
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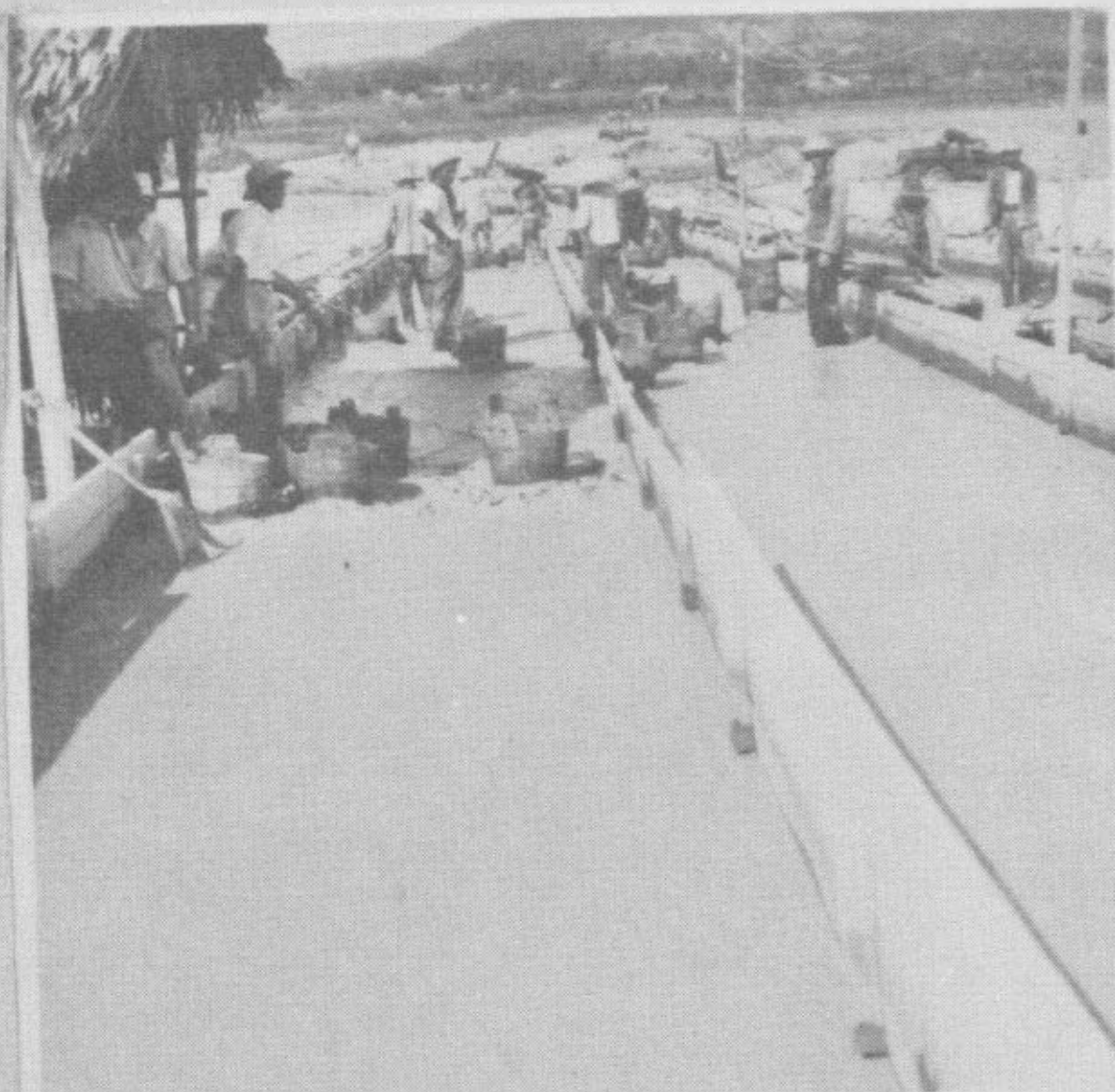
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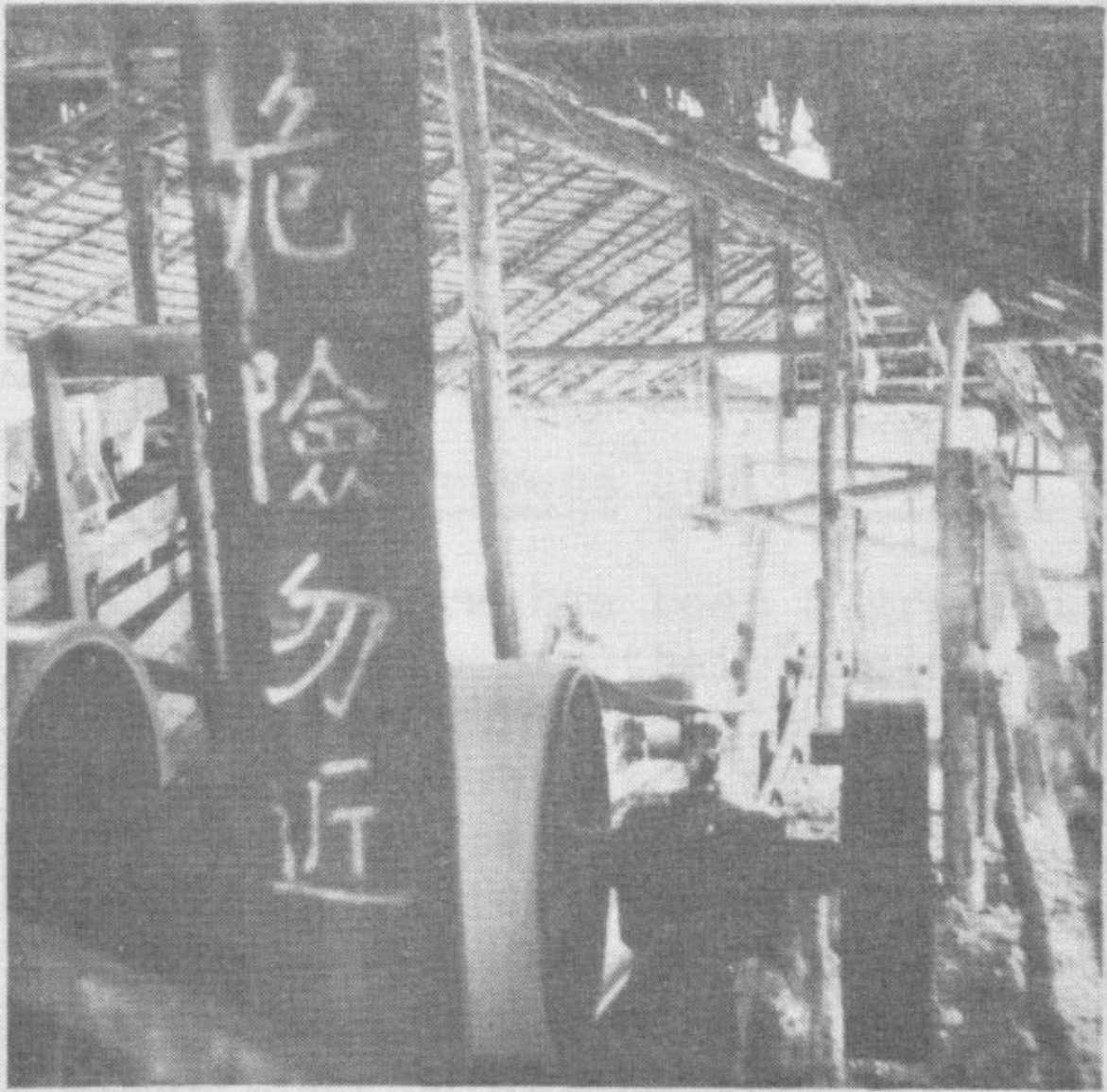
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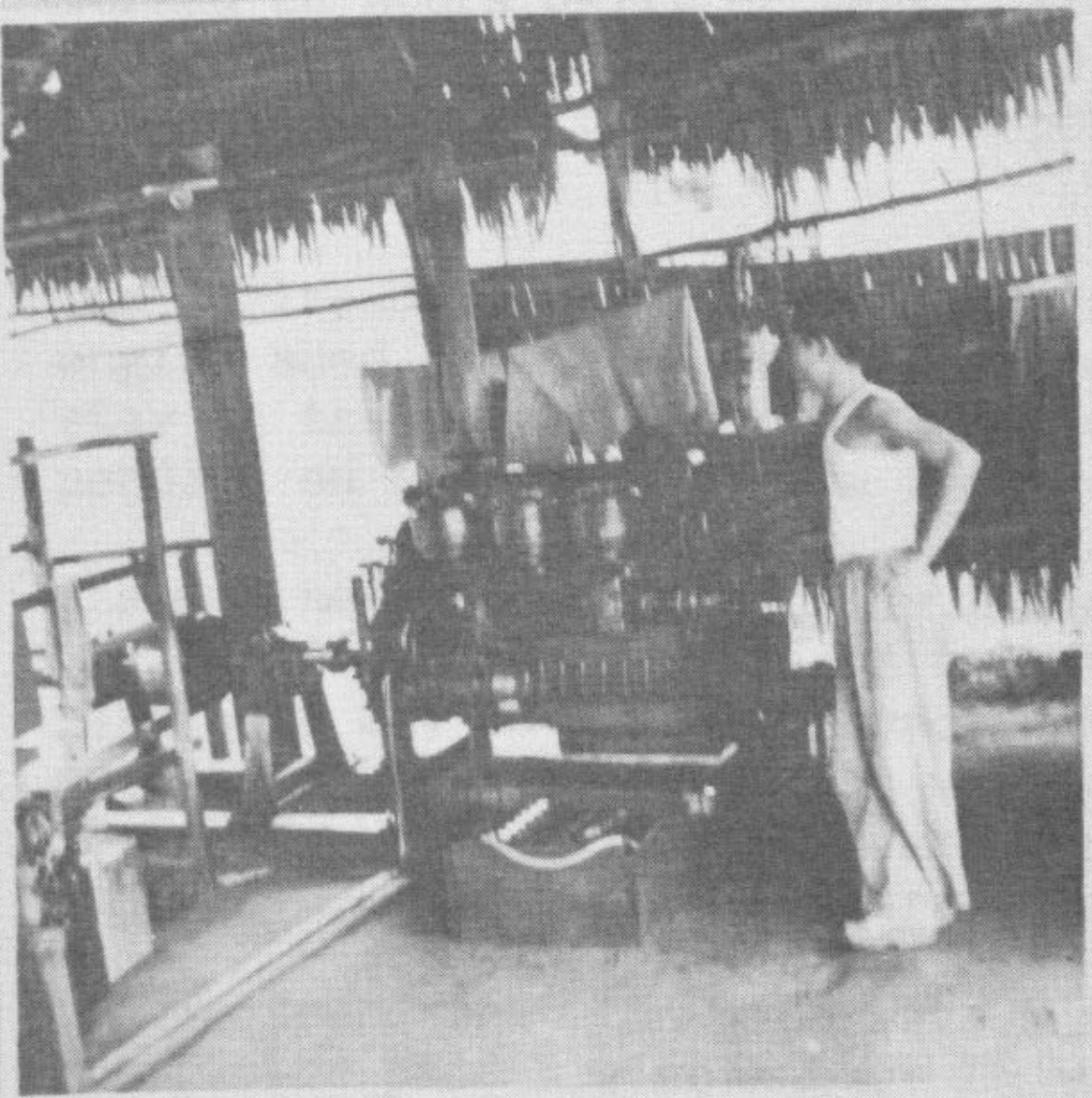
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miner. This concession is usually made by the miner because every day's delay in the completion of a palong or Kongsi involves the miner in a loss of working days from his mining coolies who are fed and housed at his expense, as well as the pay for his salaried staff. Also, a miner has frequent need for recourse to such casual labour, and if a reasonable request for compensation has been turned down, he will find it very difficult to obtain such labour at a reasonable rate in the future.

C. Engine-Drivers and Technical Staff

Although there has been a gradual trend on Chinese mines in the post-war period for miners to pay their engine-drivers and their apprentices a monthly salary, the majority still employ their technical staff through an engine contractor. The engine contractor agrees to supply the necessary personnel to man the machinery efficiently for a certain lump sum every month; a sum which may vary from a few hundred to three thousand dollars per month, depending chiefly on the number of engines, their horse-power - and hence the number of men required to work them - and on the degree of skill and experience such men must possess to be efficient. Other considerations will be the measure of security of the mine, its nearness to or remoteness from towns, the shifts required, and whether the mine is to be worked 24 hours daily or less. If the engines are known to be new or in good working order, the amount demanded will be less than that asked if they are otherwise, since the contracted personnel do not get any extra allowance for repairs.

The engine-drivers and their apprentices usually have beds in a corner of the engine shed or in a shed near the engine-room, but the engine-contractor does not stay on the miner. The engine-drivers may or may not be supplied with food depending on the terms of the contract.

The engine-contractor usually has a number of skilled men and apprentices under his control, and he contacts them to work in various mines in different districts, getting a cut on every contract. He is the general supervisor, dropping in occasionally to check on the work of his engine-drivers and to settle any complaints. He is called upon at once by the miner if anything goes wrong with the engines to help in the repairs, reconditioning, overhauling, etc.

It was found that the miner was very often unaware of the wages the engine-contractor paid his workmen. In spite of certain anomalies, many Chinese miners interviewed said that they preferred this system since they claim that the contractor has more influence over and can get more satisfactory work out of the engine-drivers.¹

D. Contract System

Between 1947 - 1948 quite a number of mines were not doing well because of the high costs of production, the moderate price of tin, and especially because of the low ore-content of the ground worked. The miners often resorted to a type of contract system by agreement with a contractor or Kepala of the labourers. The miner agreed to supply the land, the Kongsi and other structures, the engine, equipment, fuel, etc. and the salaried staff, but the cost of the food was usually advanced by the miner to be deducted later from gross sales. The supervision of the labourers, daily-paid and piece-rate, became the sole responsibility of the Kepala or contractor.

1. Malays or Indians who are technicians are nearly always employed direct by the miner at a monthly salary.

The miner agreed to pay a certain price, which was much below the prevailing price, for every picul of ore produced. In some cases there was an upward sliding scale of prices for increasing output, but usually the price per picul was reduced as the output of ore increased. However, the system was such that every extra picul produced meant an increase in the money to be shared out among the labourers; this was the inducement or incentive for them to work harder. Where the output may be too small, the miner may guarantee each worker a minimum amount of wages per month. By using this contract system the miner reduced the risks of heavy losses and yet the labourer was given a chance to share in the profits of his labours if any should arise.

The labourers and the Kepala or contractor usually agreed on a certain flat rate for every kung. Then when the output had been sold to the miner at the agreed price per picul the first claim on the money from the sales would be for payment of wages according to the kungs worked by each labourer. If the food had to be paid for, this was deducted from the remainder. Of the rest which constituted profits or bonus, 10% would go to the head or contractor for his management, and the rest would be shared out according to the number of kungs put in by each labourer. The miner's profit was derived from the differential between the price he paid for the ore and the price at which he sold it.

Although this system was not widespread and was almost never used when the industry became prosperous, it has again been re-instituted in certain mines in spite of the extremely favourable price of tin. The reasons, however, are different now. In areas which are bandit-infested, the miners find it unsafe and unwise to pay frequent visits to their property. They have to rely almost entirely on their Kepalas to keep order and to supervise the work. The discipline has become slack and it is impossible to get the proper share of work out of the labourers, especially during night-shifts. If the spot is really dangerous, there is a tendency for labour to shift to more secure places of employment, which they can easily do since there is an acute labour shortage on tin mines. Authority cannot be exercised too strictly by the Kepala even if cases of indolence were discovered. Therefore, in order to keep the labour on their mines and to secure the maximum effort and output without the necessary supervision by themselves, miners have again introduced this "profit-sharing" system.

E. Percentage Tribute Method

Another system where labour is independent in the sense defined here is the tribute method.¹ The contractor or Kepala and his gang of labourers may get an option or contract to work on a piece of mining land without the payment of an advance or deposit. Instead, a tribute of a certain percentage of the output is offered to the mine owner as payment for the right to work the mine. The tribute offered or demanded ranges from 20% to 80% of the output. If the output or recovery is not likely to be large, the percentage demanded by the miner may vary from 20% to 50%; if the output is likely to be large, he may demand from 50% to 80% of the output.

Finally, it must be emphasized that only male casual labour is often employed at piece-rates², while the regular mining labourer is on a daily-wage rate. Of the few regular mining labourers who are paid at piece-rates, all are Chinese. Indians and other races such as Malays and Indonesians are usually either on a daily wage or are salaried.

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1. This system is used for working tailings[†] dumps and for washing amang. Dulang women also sometimes work under this tribute system.
 2. Male labourers also participate in "lampanning" on a similar basis to that described for dulang women. Sometimes the men and women work together on a profit-sharing basis.

Occupational Distribution and Description

The distribution by occupation of 1364 mining labourers in 30 Chinese mines is perhaps most concisely presented in the following table:

TABLE VI

Occupational Distribution of Dependent Mining LabourA. SALARIED STAFF:

<u>Occupation</u>	<u>Male</u>	<u>Female</u>	<u>Totals</u>
Manager	9		
Assistant Manager	3		
Kepala	32*		
Assistant Kepala	30*		
Kuen Pan	16*		
Hangkong	21*		
Chargeman	2*		
Fitter	8*		
Electrician	11*		
Assistant Electrician	8*		
Engine Driver	66*		
Assistant Engine Driver	28*		
Apprentice Engine Driver	26*		
Lorry Driver	3*		
Bookkeeper	3*		
Clerk	24*		
Cook	30*	5*	
Watchman	27*		
Miscellaneous	2		
TOTAL:	349	5	354

B. DAILY PAID, PIECE-RATE & CONTRACT:

<u>Occupation</u>	<u>Male</u>	<u>Female</u>	<u>Totals</u>
Fong Shau	47*		
Tsap Kung Daily Paid	259*		
Kongsi Kung	263*	181*	
Contract & Piece-Rate	150*	66*	
TOTAL: ²	719	247	966
TOTALS:	1068	252	1320

1. This part deals with various aspects of mining labour for the month of December 1950. The results were culled from an analysis of the schedules returned by 30 Chinese mines in the various states of Malaya, and by personal observation. These schedules covered a total of 1364 labourers, both male and female.

* A fairly representative figure of the situation prevalent today for the 30 mines.

2. This total does NOT include 44 labourers whose occupations were not stated.

Salaried Staff. Although police and labour regulations demand the presence of a resident-manager on every mine,¹ only 9 managers and 3 assistant managers have been enumerated for the 30 Chinese mines. This can be explained by the fact that Kepalas are often elevated to this title, many times without the corresponding pay, and are in charge of all operations on the mine, and that Chinese miners usually do not employ a paid manager on their mines. Instead the post is often assumed by the miner himself, or by one of his sons, nephews, or close male relations who may or may not be drawing a fixed monthly salary.²

The Kepala is the most important person on a mine. He has control over and the respect of the mine labourers; the owner relies absolutely on him to get a fair amount of work out of the labourers.³ Since the Emergency, he has assumed an even more important role, as supervision by the miner is risky and infrequent. The Kepala always has at least one assistant to help him; these may be the Assistant Kepalas, the Kuen Pans, the Hangkongs, and the Pong Shause. The Assistant Kepala assists the Kepala in controlling the over-all labour on the mines; the Kuen Pan or shift-leader, however, is in charge of only one of the gangs or shifts, for which he either gets an extra monthly allowance plus his daily wages or is employed on a monthly basis. On some mines a Pong Shau may take his place. The Hangkong⁴ is usually in charge of the purchases of food and other miscellaneous articles for the mine although his functions may be taken over by the cook. He may contract to purchase the supplies for 2 or 3 mines if these happen to be located close together.

The category of technicians includes chargemen, fitters, electricians, and engine-drivers.⁵ The most numerous in this category are the engine-drivers since all mines have one or two engines varying from 150-330 horsepower for diesel oil to 500 horsepower for electric; these engine-drivers may hold a Class I certificate from the Machinery Department after undergoing an examination.

Those mines which are large, close to the road, and producing well, have their own lorries, and employ lorry drivers on a salary; if it is a small mine and far off the road, the lorry is hired when necessary or left to be supplied by the companies from which the mine orders materials.

Few miners employ bookkeepers or accountants on their mines, as most of this work is done by their clerical staff in the town office. But all miners employ a mine clerk, who is next in importance to the Kepala. He acts as a secretary, treasurer, paymaster, store-keeper and general supervisor on the administrative side of the mine, although his pay is usually not high.

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1. This is to ensure the presence (or availability) of a responsible person to conduct investigations on the spot should any incidents or untoward happenings occur on the mine.
 2. These relations usually have their homes and offices in town or at the home of the miner.
 3. The source and root of wealth and success of many miners have often been due to their luck in engaging a loyal and capable Kepala, rather than merely to their own ability or business acumen.
 4. The Hangkong at one time was the resident-manager or Kepala on a mine, and although there are still some mines whose Kepalas or resident-managers are called Hangkongs, the meaning of this term has changed.
 5. These technicians are mostly middle-aged and are well paid. Malays employed on Chinese mines usually come under these occupations.

Every mine must have a cook since Chinese miners invariably supply free food to their regular labourers. They prefer to employ male cooks (the female cook on a mine is an exception) who usually have assistants to do the menial work. The miners also all employ a watchman who is invariably a Sikh. He lives and eats separately, and has practically no intercourse with the other mine labourers.

The schedules showed 2 persons entered under "miscellaneous"r These two (one is 80) were incapable of any further work, but having been connected with the same mining family for two generations, had been given "pensions" in the form of a monthly allowance of \$30 to \$40.

Daily Paid Labourers. Among mining labourers, the daily paid form the largest classr The Pong Shau is the general all-round assistant; adaptable to all jobs with no specific task, he is the Kepala of the futurer A mine usually has one or two Pong Shaus, and he is classified as a semi-skilled worker.

The Tsap Kung and Kongsi Kung are both daily-paid labourers, but the Tsap Kung gets a slightly higher rate because he is considered the more skillful and has a specific task to perform daily.¹ The Kongsi Kung, on the other hand, does all the miscellaneous jobs around the Kongsi, such as hoeing, carrying earth and stones, planks, loading, etcr These two categories of unskilled labour are most numerous on mines and usually account for 2/3 to 3/4 of the total labour force employed. If women are employed, they usually fall in the Kongsi Kung category as their principal jobs are those of the miscellaneous nature described above.

Residencer With very few exceptions, nearly all Chinese miners provide accommodation for their labourers. Since almost all Chinese mines are classified as "short-term" mines with the exception of a few large open-cast and hydraulic mines, the minimum requirements approved by the Health Authorities for their coolie-lines are of a lower standard than those for "long-term" mines which are mostly European-owned and operated.

Most of the male mining labourers, as well as the resident-manager and the mine clerk,² reside in the dormitory-style Kongsi houser The fact that the majority of the Chinese male labourers live in the Kongsi does not mean that they are all bachelors. In fact, most Kongsi dwellers are married, but their wives are either in China or else do not live on or near the mine. Those who live in farmhouses on the mine are usually married. These are the squatters, and their wives may be vegetable gardeners or mine labourers or a combination of both. The Sikh watchmen - usually one to a mine - live with their families in huts close to the Kongsi. Those males who do not live in the Kongsi nor in the houses in the mine area are usually of the younger generation, single and local-born, and have their own homes in the town or village.³ Among these, however, may be numbered some married labourers whose wives possess a room and have a job in the town or village nearby.

The women never reside in the Kongsi.⁴ Many, especially those with children, live in huts on the mine where they work. Although the number who stay outside

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1. The Tsap Kung may be a monitor-man, or in charge of the waste-chute, palong, or sump (the spot where the ore is sucked into the pump up to the palong)r
 2. As these two men are the most important persons living in the Kongsi, they have the largest (and the tidiest) room in the center of the Kongsi.
 3. These are the new entrees to the industry.
 4. The exceptions are the women cooks, who have a separate single room to themselves which is in the kitchen at one extreme wing of the Kongsi.

31. Indian Sikh labourers at work. They are removing clay which cannot be disintegrated by monitors.

34. A Sikh watchman weighing the tin ore contained in the canvas sacks. These sacks are then brought to town to be sold to the smelting company.

32. Note the way these Sikh labourers are dressed, especially the cloth turban on their heads. One is helping the other to get the basket of earth on top of his head so as to carry it away.

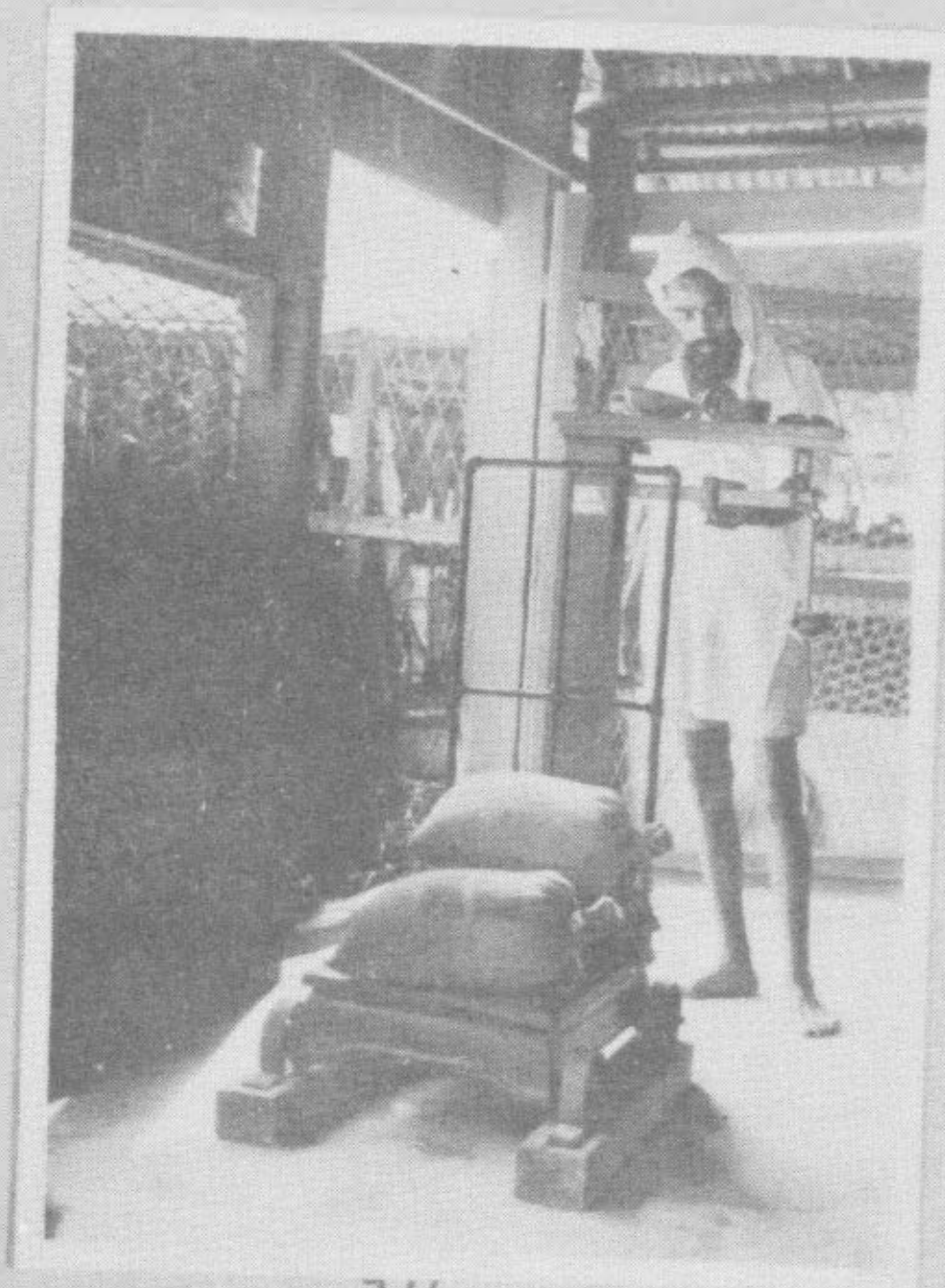
35. View of a separate coolie line for Indian labourers. This is not so elaborate as the Kongsi for Chinese labourers.

33. An old Sikh labourer trying to pipe away his fatigue. He is barefooted and mud spattered. The wicker baskets used differ from those used by Chinese labourers.

36. Partial view of an Indian labourer's house on a mine. In the back are cows and a cowshed. In the front left-hand corner is the bathroom. Only one corner of the house adjoining the bathroom is visible.



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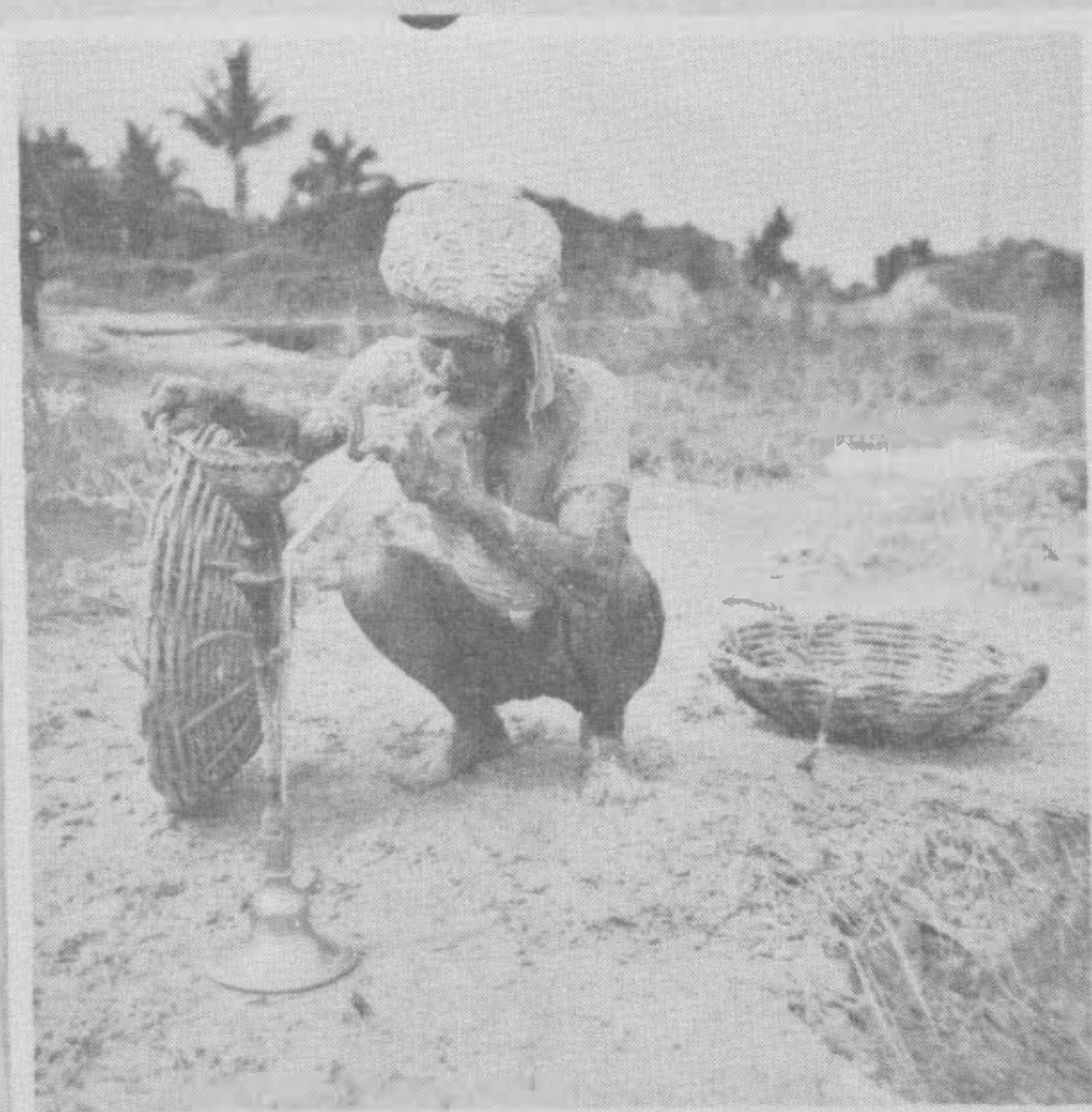
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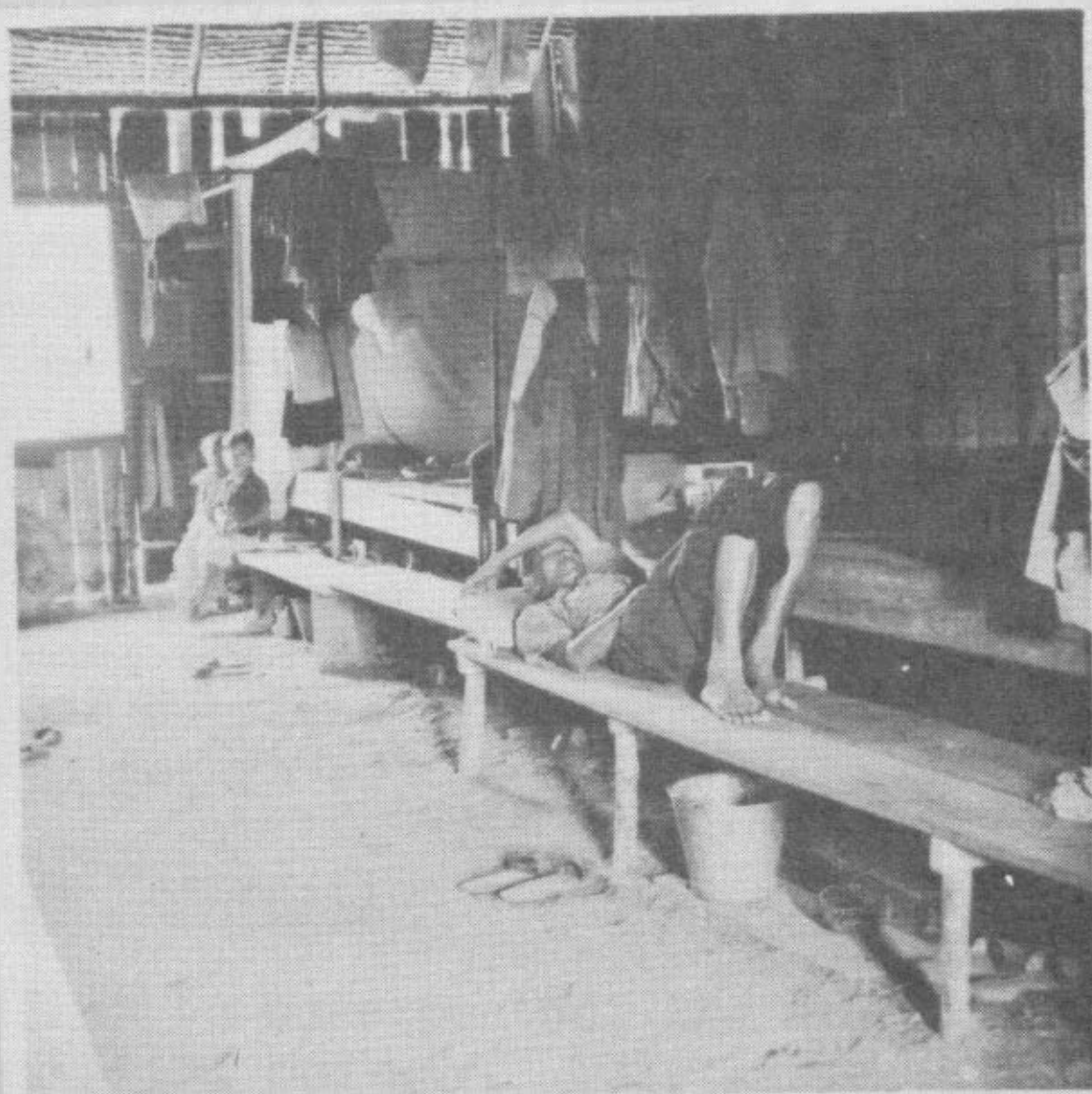
37. A labourer's bed in a dormitory or Kongsi. The mosquito net is almost black in colour. Clothes and towels are hung from hooks or rails. The labourer keeps his belongings on the bed. Note the low ceiling.
38. The bench in front of the bed, with a piece of wood put on top of a sack, or a pillow, is used for resting in between work when the labourer is too lazy to change into clean clothes. This bench is used for short naps and prevents dirtying the bed. Here, a labourer in his dirty work clothes is having a nap. The floor is of sand. The window at the extreme end provides some ventilation. Clothing is hung up as shown. Shoes and sandals are under the bed.
39. A latrine built over a mining pool. It has 4 squats inside. The roof and walls are of zinc and is very hot inside.
40. This is a large pit latrine with many squats inside. Note the plank leading into the latrine, and the attap walls and roof, with wooden sides at the bottom.
41. A well for bathing. The water is drawn up by hand in buckets, poured into the U-shaped planks which lead to a tank or iron drum. The attap structures are bathrooms.
42. A well used for drawing drinking water. It has a cement apron. Water is piped up by a kind of hand pump and flows into the big iron drum. The bucket with a handle lying on top of the wooden tub is used to put water from the iron drum into kerosene cans which are carried on two ends of a pole slung over the shoulders.



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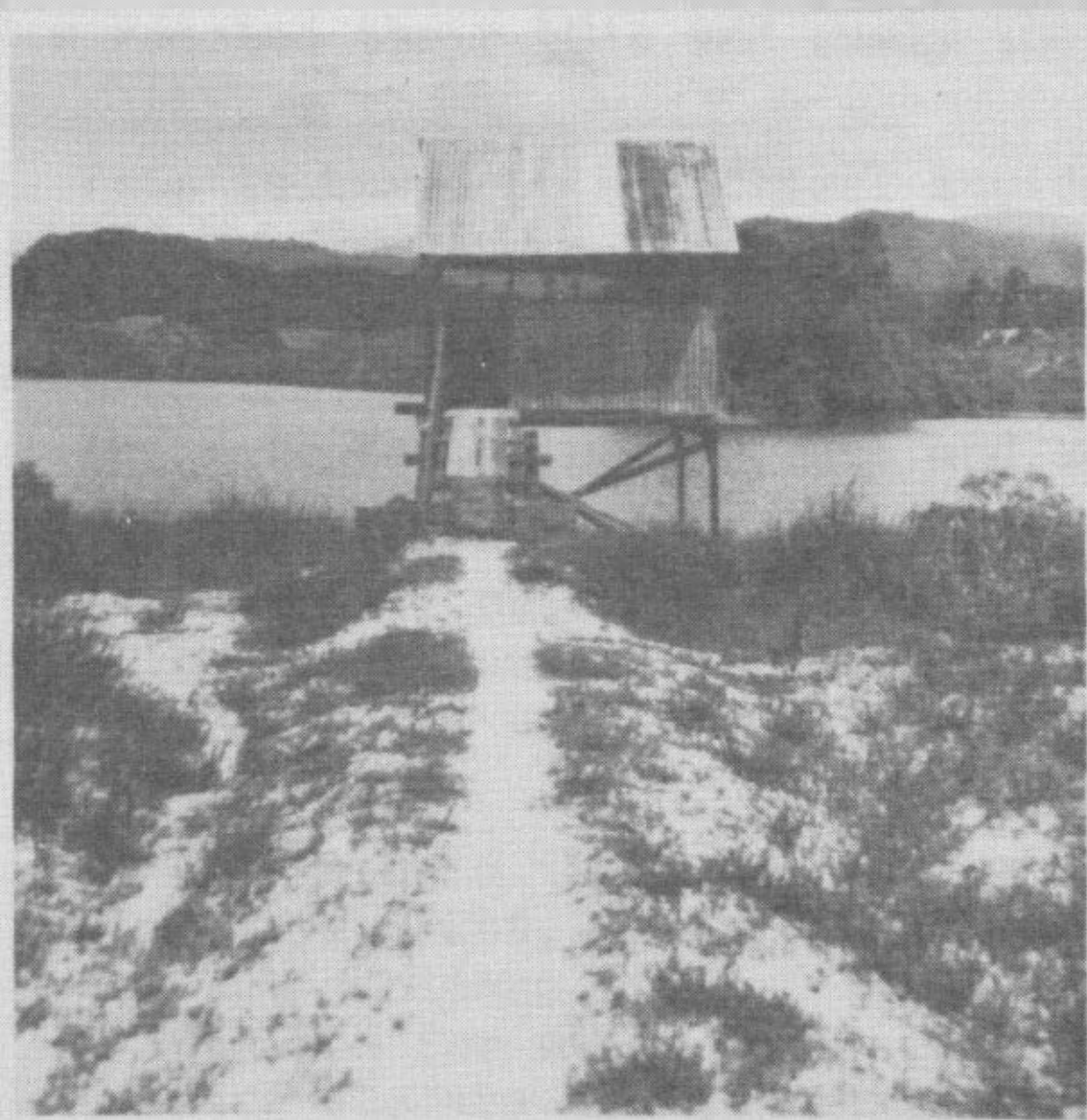
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the area of the mine at which they work is most numerous among the women, it should be noted that not all of those reside in the nearby towns or villages, but some live in huts near other mines which are not far from their own place of employment.

Tribe and Place of Birth

Among Chinese miners it is not known which one tribe or clan is most important. This results in part from the difficulty of deciding what should be the criteria of importance, i.e.: the number of miners of each tribe, the number of mines they control, the total tin-ore output, or the total labour force under their employ. However, it is a well-established fact¹ that Hakkas and Cantonese are the most numerous as miners, and that they operate the largest number of mines, as well as account for the greatest output from the Chinese community. Among the miners the Hokkiens can be counted as the third most numerous in this industry, and the trend seems to indicate that more of them have been venturing into tin mining since the war.² Of the Chinese labourers in Chinese mines, both male and female, it can also be said that the greatest majority are Hakkas and Cantonese,³ followed by the Hokkiens. The 42 Indian males in the 30 returns were mostly Sikh watchmen.⁴

There is no doubt at all that the majority of the Chinese labourers on Chinese mines were born in China, and emigrated to Malaya to earn a living. However, the proportion of China-born labourers was greater pre-war than it is now, as the hostilities of 1939-1945 interrupted the flow of Chinese immigrant labour and the post-war unstable political situation led the authorities to restrict Chinese immigration. Hence, of the total Chinese labour force considered in 1950, roughly 2/3 were born in China and 1/3 in Malaya. The pre-war proportions were probably 4/5 China-born to 1/5 local-born. The increase in local-born Chinese labour in the Chinese mines is the logical outcome of the war, when many local-born Chinese youths reached their teens during the Occupation, and having been deprived of proper education during the war, sought work on the mines upon the return of the British.

Age Composition

As is to be expected, the average age of mining labour is higher than that existing pre-war. This is because between 1941-1950 there has been practically no influx of new middle-aged immigrant labour from China. Instead, those who had been in their 30's and early 40's pre-war, and were most numerous then, have now reached their 40's and early 50's, and form the most numerous age group.

1. This is based on historical incidents described on page 2.
2. The Hokkiens were formerly connected with the mining industry in quite another way. They were usually shopkeepers or provision-store dealers on mines and supplied most of the needs of the labourers. At present, however, they have begun to take a more direct and active part in mining.
3. It is a well-established fact that the mine-owner always tends to employ men of his own race or district on his mine. This characteristic feature of the tribal relationship between the miner and his employees has been maintained to this day, and an inspection of the schedules showed definite proof of such a custom.
4. It can be said that practically all watchmen whether on European or Chinese mines are Sikhs. They are paid monthly, and are allowed to rear cattle. There are some Chinese mines in Perak, however, which employ many Sikhs for carrying stones and for other heavy work. The remaining Indians are Tamils or South Indians who are usually employed as unskilled labourers at a daily wage, without food or lodging being provided free by the miner. These usually live outside the mine. Of the 42, 39 were born in India.

TABLE VII

Distribution by Age Groups of 1307 Mining Labourers

Age	Sex		Total
	Male	Female	
15-19	51	29	80
20-24	85	20	105
25-29	55	25	80
30-34	95	25	120
35-39	137	40	177
40-44	176	39	215
45-49	157	33	190
50-54	121	26	147
55-59	88	4	92
60-69	82	7	89
70 and over	11	1	12
TOTAL	1058	249	1307

Chinese miners, even though often short of labour, tend to follow the cautious policy of preferring to employ older workers¹ or go without them, rather than take on younger applicants whose antecedents are unknown to them. This is especially true today as most of the bandits are known to be young men. Also, most of the responsible occupations such as assistant Kepalas, Kuen Pans,² Hangkongs,² Pong Shaus² are held by men between the ages of 40 and 60. These are the men who direct labour to enable the smooth working of a mine. The very backbone of the labour force on any mine is formed by their experience, long service with and loyalty to their employers, their industry and clear-headedness as workers, as well as the respect in which they are held by their labourers. Without their cooperation, a miner would find it impossible to carry on his operations efficiently. This direct connection between age and occupations can be seen clearly in the fact that most of the technical apprentices are teenagers and young adults, while the skilled technicians are mostly between 35 to 45 years old. The Kepalas, who can make a mine a success or a failure, are mostly between 50 and 70 years of age.

Sex Ratioe

From the statistical results of the schedules it was found that of the 1364 labourers on 30 Chinese mines, 1068 were men, 252 women, with 44 whose sex was not stated. This gives a ratio of roughly 4:1. However, complete reliance cannot be placed on this result as indicative of the situation on any one mine because many mines with a labour force of 50 to 100 often only have a few women labourers and sometimes none at all, while in some other mines with a labour force of 40 to 50 the women labourers may exceed the men in number.³ But usually

1. Fortunately, mining labourers are capable of efficient work even when they pass their forties or fifties, or else the output of Chinese mines would have been adversely affected during the post-war period by this aging labour forcee
2. See Appendix for definitions.
3. The employment of women depends a great deal on the terrain of the mine. If there are many rocks to be carried away, grass to be cut or stiff clay to be broken up, more women may be employede

the mines employ few women, and these are more of a casual labour type rather than being regular mining labour. Probably a more correct estimate of the proportion would be 5:1.

Marital Status

The only question asked in the schedule on marital status was whether the labourer was married or single. The results showed that almost 4/5 of the men and women labourers were married, although it is known that most of them are separated from their respective partners who are in China. However, a welcome feature is the increase in the number of marriages taking place between labourers of the same class and locality during the post-war period. This may be the firm beginning of a change from transit immigrant labour common before the war to a stable settling family labour in Malaya in the future; such a changeover may make Malaya eventually independent of immigrant labour.

Literacy and Education

Due to a failure to state the literacy or illiteracy of 25% of the labour force entered in the schedules, it is impossible to make any quantitative comparisons. However, it was seen that the Chinese labourers who were designated as literate¹ were those who could read and write Chinese and no other language. Of the very small number (9) who could read and write both Chinese and English, it was found that all were salaried staff, four being managers, one an assistant manager, one an electrician, one an engine-driver, and two clerks.² Of the nine who could read and write other languages, one was a Malay and the other eight were Sikhs. It is also certain that literacy is higher among the men than the women, the reason being that most of the women labourers were in China at a time when education for girls was limited. Even the educational level of the average literate Chinese labourer is very low, as he has seldom had over 2 years of education in a Chinese school in China³ or in Malaya.

It is not intended to go into the controversy of Chinese education here. Much is still being debated between representatives of Chinese education and the Government of Malaya. However, it may be of interest to note that the Controller or Commissioner of Labour has the legal power to require an employer to set up a

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1. The criterion for "literacy" used by those who filled in the schedules was based on whether or not a labourer could either read and write a letter in Chinese, or read the general contents of the notices on the mines, or read the contents of Chinese newspapers or magazines. Those who claimed to have had 2-3 years of schooling were also treated as literate.
 2. It can be definitely stated, however, that all clerks on Chinese mines are literate in Chinese, this being their first, and perhaps only, qualification for the job; while, on the other hand, there are some Kepalas who are illiterate.
 3. As most of the labourers had been peasants in China before they emigrated, their education, if they had any, must have been very limited. These labourers almost all came from South East China provinces where their period of school attendance, if any, would have been short because of economic reasons. Their parents may have sent them to a village school or schoolmaster when they were young and their parents could not afford the time to look after them. But once they were of an age to be useful in the fields they would have been taken out of the school or private class and put to work in the fields. Hence the literacy of Chinese mining labourers is seldom of a high degree.

school for the dependents of his labourers between the ages of 7 and 14 if they exceed 10 in number and are all of one race, and to maintain an approved teacher at his own expense. But to find a school built, maintained, and run by a miner for children on his mine is a rare occurrence, although there are a few such schools in Chinese mines. This should not be taken to imply that Chinese miners do not support the idea of education for their labourers' children; on the contrary, miners have been most **generous in their** donations (which may be a lump sum or in continuous installments, or often a combination of both) to Chinese schools. There is invariably a Chinese school in almost any mining village, and more than one in the large mining towns. They are usually organized and managed according to whether they are of the Hakka, Cantonese, or Hokkien group, the chief supporters of which are usually the miners themselves who are often directors or members of the Boards controlling these schools. When any new miner begins operations in an area, the local School Board at once approaches him to become a member, and although he may not find the time to take any great active interest in it, he seldom refuses the request for financial assistance.

Although to go into further details is outside the purpose of this paper, it is hoped that adult education will eventually be instituted on the mines, perhaps by inducing the labourers to join at first by paying them a small fee to attend, or by having the hours of education included among the paid working hours. Employers should also make it clear to their labourers that progress in literacy will be rewarded by a slightly higher wage rate or by a more rapid promotion. Once the beneficial effects have been realized and felt, it will no longer be necessary to maintain these initial inducements.

Superstitions

Forty or fifty years ago, superstitions played an important part in the Chinese mining industry. Even today these superstitions have not been completely eradicated. The miner may not personally believe in superstitions, but he will never object to his clerk or Kepala worshipping the Datoh, which is commonly known as Tua Peh Kong in Hokkien, or Tai Paak Kong in Cantonese and Hakkae. Mining labourers, Kepalas, and even proprietors still believe that production of tin-ore is a matter of luck which depends very much on the generosity of the Datoh.

This Datoh is not an idol, but an imaginary god whose duties include watching over lands and mines and the safety of the labourers on them. It is usually symbolized by a tall tree or large rock with a commanding view of the mine. Before a mine starts to operate a Datoh is chosen and the miner or his deputy presents an offering of red Chinese candles, three joss-sticks, a pair of tinsel flowers, curried chicken or roasted pork, and three small cups of wine. Promise of future offering is made at the same time in order to insure good production of ore. As for the labourer, he believes that his wages depend upon the good will of the Datoh.

Certain words are considered unlucky and their use on the mine is strongly objected to. "Death", "broken", "fall-down", and "accident", among others, are strictly prohibited. Should a labourer utter one of these words through a slip of the tongue, the person who overhears it must immediately say "good luck, let the unlucky word bring good luck". In extreme cases the speaker of the taboo word has to pay a fine, which is spent for the purchase of fire crackers to scare away the evil spirits.

Nowadays women labourers form a very important component of mining labour, but before 1900 women were not allowed to approach the mines for the male labourers considered them unlucky. As this example indicates, the trend seems to be toward enlightenment.

45. This is the interior of a kitchen. Note the built-in cement stove at the back. The wooden tub with a lid is for cooked rice. The huge frying pans with tin covers are for soups and vegetables and meat. The washing tub and crockery are on the table in front

46. This is the daily check roll or kung pai. The clerk enters on the bottom of the sheet the number of shifts worked by each labourer per day. The little wooden or tin plaques hung up on nails bear the names of the labourers and their specified jobs for a shift

44. A kitchen built separately from the Kongsi. Note the corrugated iron roof, the ventilation and lighting. The floor is of cement. Dining tables and benches can be seen clearly. Some bicycles are parked in the shade of the kitchen. In the foreground are spare parts

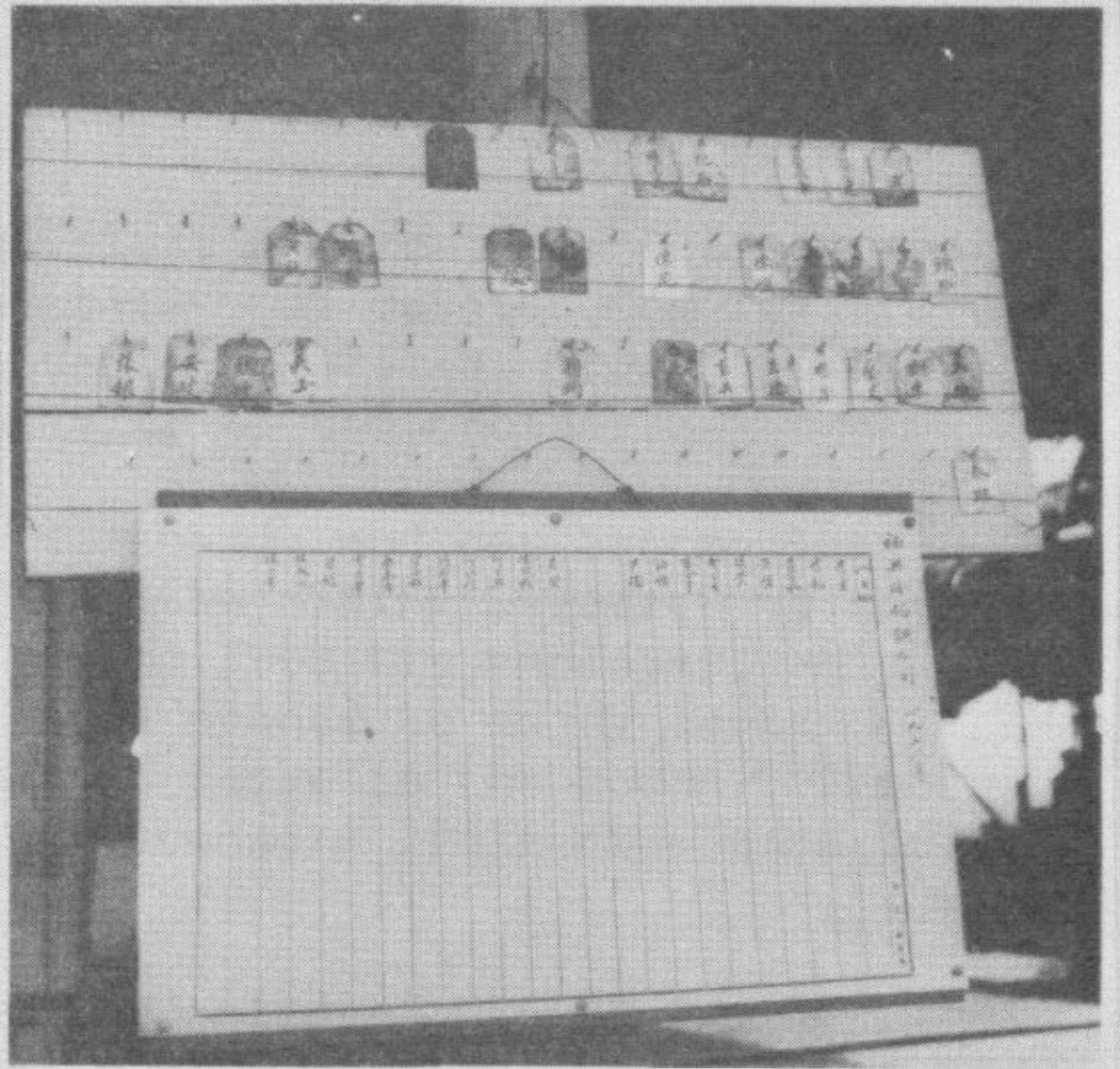
47. This mound is a place for worshipping the Datoh on a miner. Prayers are usually offered every 2nd and 15th of the month.

45. A meal being served. The female is serving rice from the pan. The little boys, sitting at the back, are probably children of labourers and are enjoying a free meal.

48. The construction of an attap roof of a store hut.



43



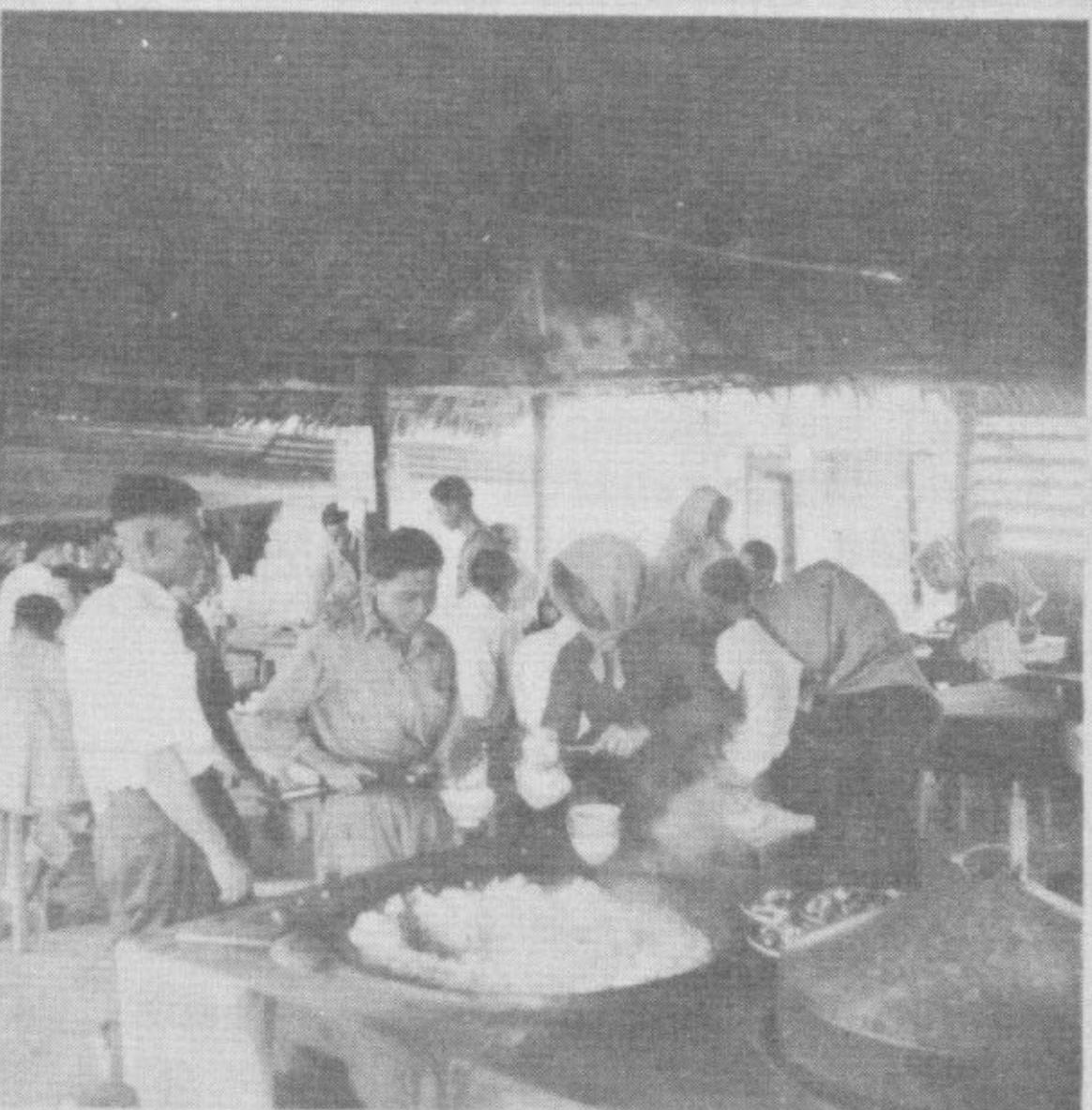
46



44



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48

Sociological Aspects

The Chinese labourer is, without doubt, the hardest and most adaptable worker in Malaya, working at his best when on piece-rates. One outstanding feature of a Chinese mining labourer today is his independence, resulting from the existence in one mining area of many mines in close proximity to one another.

The ordinary post-war labourer has more money to spend, and has become less thrifty. The high cost of living does not affect the mining labourer to any great extent, because he gets free food and lodging from his employer. His higher wages plus the Tin Price Bonus¹ gives him a chance to enjoy certain amenities such as cinemas, wayangs,² and amusement parks in the towns. Transportation by bus is cheap and convenient to the big towns; a cycle ride soon brings him to a nearby village.

There is also a change in their outlook towards education. Many Chinese labourers are very anxious to give their children an education, and will go to great lengths to keep them at school at least long enough for them to acquire an elementary knowledge of Chinese characters.³

The frequency with which Chinese mining labourers visit prostitutes has probably declined since the war. During the pre-war period when the sex ratio of females to males ranged from 100:1000 in 1901 to 436:1000 in 1931, the labourer who could not afford a wife, or whose wife was in China, often frequented brothels. But between 1933 and 1938, a tremendous influx of Chinese women labourers occurred, resulting in a more balanced sex ratio which has had its beneficial effects on the morals of the men.

In the past, the majority of mining labourers smoked opium because prior to 1911 the Government permitted licensed opium dens or farms from which it obtained large revenues. Even after 1911, when the Government took over the monopoly, opium-smoking did not decline among mining labourers, as previous Government encouragement had resulted in the creation of a strongly entrenched habit. This habit also continued to prevail because it was regarded as a panacea for many ills and was even recommended by Chinese physicians. With the compulsory registration of opium smokers in 1929 and the sale of opium or chandu by cards, blackmarkets and illegal opium dens flourished. Only in November 1943 was total prohibition of opium smoking decided on; even so, the ingrained habit in so many addicts has only made smuggling a very profitable business. Although it can be said that opium-smoking has declined considerably among mining labourers (partially due to the emergence of cigarettes and Chinese tobacco), it is by no means completely eradicated.

The Chinese addiction to gambling was also encouraged and exploited by the Government for purposes of revenue until 1912, and still goes on today illegally. Illegal lotteries are common, the labourers often buying tickets in lotteries and sweepstakes. During holidays and their leisure hours they may participate in games like mahjong, dominoes or cards, and since not much harm is done, the Government tolerates such "recreation".

1. See below: page 32.

2. wayang: a play theatre

3. Few, however, can afford to send their children to an English school, which is also usually too far away.

CHAPTER IV. CONDITIONS OF LABOUR

Wages

Wages will be dealt with in some detail since to the Chinese mine labourer they are of primary importance; other conditions of work such as food, accommodation, sanitation, etc. are felt to be relatively minor considerations.

Wage trends in Malaya are determined by the volume of the tin and rubber trade and by the price these commodities command in the world market. The world-wide depression of 1929 hit Malayan tin hard. This can clearly be seen from the following table:

TABLE VIII¹

Effects of the Great Depression on Malayan Tin Mining

Year	No. of Mines in Operation	Output in Tons	Labour Employed*	Price per picul
1929	1,286	69,366	100,000	104.37
1930	1,234	63,974	75,000	72.89
1931	1,188	54,908	52,000	60.29
1932	1,068	29,742	40,000	69.76
1933	1,013	24,904	34,000	99.99

* i.e.: dependent labour

The year 1934 saw a marked upturn in all categories except number of mines in operation.

Wages immediately felt the impact of the slump. In fact, many Chinese mines were able to stay open only because of the extremely low wages their labourers would accept. The rate per kung in 1931-32 varied from 10 to 20 cents, and in some cases the coolies worked for their food only.

Many organizations, such as the Kinta Unemployment Committee in Perak, were set up in Perak and Selangor to provide relief work for the unemployed. But as vast numbers of Chinese mining labourers were unable to find alternative occupations during this period, because of similar conditions in other industries, the Government, at great cost, undertook the mass repatriation of unemployed Chinese labourers. Mr. G. E. Cator, Acting British Resident of Perak, stated that in 1931, 10,000 mining labourers were repatriated within the months of September and October alone (This figure does not include those labourers who returned to China of their own accord.) This mass emigration and repatriation back to China in the slump of the 1930s caused an acute shortage of mining labour when the industry began to revive in 1934, and was one of the main causes retarding its recovery. However, this situation was also responsible for the 1000% increase in money wages for tin mine labourers during the decade, 1931-41.

The present day boom, primarily due to the Korean War, has made its impact on wages and working conditions for the mine labourer just as clearly as did the

1. Annual Reports of Mines Department, F.M.S., and Annual Reports of the Various States in Malaya.

pre-war depression. There is now full employment, even a shortage of labour. This, of course, explains the improved food and housing provided by the miner and the tremendous increase in wages.

The relationship between tin prices and wages under three types of market conditions can be seen from the following table:

TABLE IX*

Relation Between Prices and Wages in the Tin Mining Industry

Year	Tin Price per picul	<u>Wages per kung</u>		Daily Cost per Capita of Food Supplied
		Male	Female	
1929-1932	\$60.29-69.76	\$0.10-0.18	\$0.25	.13- .17
1941	\$140-150	\$1.00-1.20	not available	\$0.80- 1.00
1950	\$360-370	\$1.46	\$1.98	\$1.20

* From F.M.S., Mines Department, Annual Reports.

A more detailed break-down of wages for December 1950 is given in the following table:

TABLE X*

Average Kung and Monthly Earnings of Non-Salaried Mining Labourers¹

	Number of Labourers	Average wage per kung	Number of Labourers	Average Monthly Income
MALE	569	\$1.46	719	\$98.32
Pong Shau	47	\$1.62	47	\$104.47
Tsap Kung	259	1.56	259	101.54
Kongsi Kung	263	1.37	263	84.37
Contract	-	-	150	115.27
FEMALE	129	\$1.98	247	\$65.63
Kongsi Kung	129	\$1.98	181	\$61.32
Contract	-	-	66	77.43
TOTALS:	698	\$1.56	966	\$89.96

* Based on analysis of schedules from 30 mines.

One of the first things to be explained about this table is the discrepancy between the male and female rates. The female daily average is higher because women are not supplied with free food if their wage is about \$1.80 per kung. Those receiving between \$1.40 and \$1.80 receive a free noon meal considered to be worth about 15 cents. Those receiving less than \$1.40 receive free three meals (but no lodging). If a minimum of \$1.00 per day for food is subtracted from the women's average, it will be seen that the men's real wage, which is supplemented by free food and lodging, is higher. The higher monthly average

1. To understand the relationship between kung and monthly averages see the section on hours.

for the men is explained by the fact that they and not the woman can take advantage of the Tin Price Bonus Scheme.¹ Furthermore, they do not work regularly, spending some time at alternate occupations.

The wages for December are not necessarily the same as the yearly average. Many factors cause a labourer's earnings to vary from month to month. He may have been ill; he may have taken off to attend a marriage or a funeral. He may have absented himself to work on his farm. Shifting of the site or building of a new palong may have caused the mine to shut down temporarily. The Government resettlement scheme in December 1950 actually caused the absence of many labourers in Perak and Selangor so that they might move their families.

In the majority of Chinese mines, it is customary for the employer to give an advance of wages to his labourers when the request is made. Advances are usually made only after the 15th of each month; some miners give two advances in this period. The advance is only equal to or less than the earnings of the labourer up to the day the advance is paid. Previously exploitation took place in the form of interest on these advances, but this is now prohibited by law.

Salaried Staff Incomes

Of the 1364 labourers on which data is available, 354 are salaried employees. The salaries of the most important categories are listed below. It can be seen that incomes vary widely, from the manager and Kepala on the one hand to the cook and apprentice engine driver on the other.

TABLE XI*

Monthly Income of 341 Salaried Mine Employees

	<u>Number</u>	<u>Average Monthly Income</u>	<u>Range</u>
Manager	9	227.77	160 - 280
<u>Kepala</u>	32	183.12	120 - 300
Fitter	8	182.50	140 - 240
Engine Driver	66	155.30	80 - 260
Electrician	11	142.73	80 - 240
Assistant <u>Kepala</u>	30	131.33	100 - 200
<u>Kuen Pau</u>	16	125.00	100 - 160
Clerk	24	105.00	60 - 240
Assistant Electrician	8	100.00	60 - 120
<u>Hangkong</u>	21	98.57	40 - 160
Assistant Engine Driver	28	92.14	60 - 120
Watchman	27	77.41	60 - 120
Cook	35	74.57	40 - 120
Apprentice Engine Driver	26	56.92	40 - 80
T O T A L S :	341	121.06	

* Based on analysis of schedules from 30 mines.

For both salaried and non-salaried employees, the range from \$70- \$129 per month accounted for the great majority: 831, to be exact.

1. However, the MMEA sets a minimum wage of \$1.91 per kung for women.

Four Methods of Sharing in Tin Mining Prosperity

There are four ways by which the ordinary mining labourer is able to obtain a share in the profits of the present tin boom. (1) Because of the high price of tin, there are considerably more opportunities for overtime work (the average number of kungs for overtime is from 20 to 25 per month). (2) The miner tends to be more liberal in his food expenditure for his coolies, more being spent on slightly better food. However, this is not a very important consideration to the average labourer. (3) Many miners who are not members of the M.M.E.A.¹ follow their recommendations for the payment of a tin price bonus to their labourers, depending on the price of tin and the wages earned per month. Other non-members, instead of giving a bonus, give an increase in the wages by raising the rate per kung. (4) The Tin Price Bonus Scheme, under which a hard working labourer can easily get an additional monthly income of \$20 to \$30, is probably the most important way by which the labourer can benefit from the tin boom. This scheme, forwarded by the M.M.E.A. (Chinese Section), and subscribed to by almost all miners who are members of the M.M.E.A. as well as many non-member miners, is composed of a series of recommendations, which are not directives. There is no legal power binding any member-miner to carry them out if he desires to do otherwise. But infringements are rare. The present trend actually seems to be toward exceeding the bonus rates because of the acute shortage of reliable mining labour.

The Tin Bonus Scheme forwards a uniform bonus increase of 2% (based on monthly earnings)² for every \$20 rise above \$300 per picul in the average monthly price per picul of tin calculated on Singapore prices. Bonus payments are subject to the following conditions:

- (1) Bonus for each month should be calculated according to the previous month's Singapore average tin prices.
- (2) Employees who have done less than 26 kungs in one month cannot enjoy the benefit of bonus for that month.
- (3) Employees who have done less than 26 kungs on grounds of sickness or accident (established to the satisfaction of the employer) may be paid the full month's bonus or part thereof.
- (4) The maximum bonus payable to each employee for any one month is \$30.³
- (5) Payment of bonus will be stopped if restriction of tin production is imposed.

It should be also noted that men on contract or piece-rates and nearly all women labourers are not eligible for this bonus, since they are not regular daily or monthly paid labour.

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1. M.M.E.A. = Malayan Mining Employers' Association.
 2. Prior to this revised Bonus Scheme in November 1950, the M.M.E.A. had already recommended the payment of a 10% bonus for August and of 14% for September, by employers to their labourers.
 3. The object of the M.M.E.A. was mainly to benefit the daily paid labourers and not so much the salaried staff, many of whom were relatively well-paid. The maximum of \$30 bonus per month was imposed so that managers and technicians drawing \$300 or more would not get a \$100 bonus each month. The percentage bonus for January and February 1951 may have been as high as 35% to 40% of wages.

Hours

Working hours, like wages, vary according to the nationality and sex of the labourer, the type of employment and the occupational status. Where the Labour Code¹ is applied, working hours are limited to nine, and overtime is paid at double rate. By law no individual is bound to work for more than six days a week and there is a Holiday Ordinance passed in 1950. But these do not apply to mining labourers, who normally work 8 hours a day (a kung), whose overtime is not double but only 1-1/3 of the normal rate, and who usually have no paid holidays.² Even the one-day holiday per week which is accorded to shop assistants and other occupations is not granted in this industry. Although the Labour Code permits an employer, with the approval of the Commissioner of Labour, to require an additional 3 hours per day (after the normal 8 hours work) from his labourer for food cultivation (to be paid at the normal rate), this provision is rarely taken advantage of. Also, although the Labour Code prohibits the employment of women of any age and of children under 18 in night work, it seems likely that the first condition is satisfied, but not the second. It is probable that apprentice engine drivers under 18, for instance, do perform work at night on the mines.

While the normal hours worked per day by a mining labourer is 8, the Annual Report of the Department of Labour for 1948 and 1949 shows that the average number of hours actually worked per month by a male labourer of the semi-skilled and unskilled type³ ranged from 271 to 283, or an average of about 9 hours a day every day of the month. At the same time, the Report showed that the average total monthly working hours for women labourers and for mining labourers of other races ranged from 222 to 226 hours, or 7½ hours a day. This is in fact, in general of the situation even today; in fact, it may be safely assumed that the average total working hours per month for male Chinese mining labour for 1950 is around 300 hours, the result of increased opportunities for overtime work due to the high tin price and labour shortage on mines, as well as the attractive higher wages and Bonus Schemes.

While it is true of labourers in industrialized countries that an increase in wages may result in a decrease in the average working hours per worker due to a desire of the worker to find time to spend and enjoy his increased pay, the same cannot be said of the Chinese male mining labourer, whose economic, mental and social background is quite different. He has to work harder as he often has a larger family to support or has to remit money home to China. He does not get the benefits of the social schemes and services obtainable by his European counterpart, nor is he yet sufficiently educated to realize that leisure is a commodity which commands a high price, or rather he does not know how to equate his marginal income to the marginal disutility of effort or labour arising from additional work.

1. See below page 40.

2. Although the holidays "recognized" and granted per year are from 2 to 10 (most commonly 5 to 7), almost all mines have no paid holidays. However, this is compensated by the fact that holidays are usually associated with Festivals and it is the custom of all Chinese miners to give their labourers on the mine sumptuous feasts on such occasions, supplying alcohol, cigarettes and luxury foods liberally. Those who wish to work on such occasions usually receive overtime rates for less than the required number of hours of work performed.

3.e.i.e.: Pong Shaus, Tsap Kungs, Kongsai Kungs, Ore-dressers, etc

All mines begin work at 6 a.m. ceasing at 6, 10, or 12 p.m. Some work 24 hours daily.¹ While it is true that some miners resort to night operations (conducted under flood lighting) solely to increase output, others are forced to do so because the seepage from the hillsides is so great and so rapid that if the pump stopped working for the night, the mine hole would be flooded the next day, necessitating a rather lengthy de-watering process before operations could be resumed. The output from such night work is negligible and impossible to check. Ordinary labourers working night shifts do not get extra pay or "loadings" as in the case of Australian miners.

A mine has 2 or 3 shifts (or gangs of labourers) under a Kuen Pan, depending on when it ceases operations at night. The usual shift hours for a mine operating from 6 a.m. to 10 p.m. can be depicted as follows:

Shift	Normal <u>Kung</u>	Hours when Overtime Work is Permitted
A	6:00 am - 9:30 am - breakfast - 10:00 am - 2:00 pm	3 - 6 pm 7 - 10 pm
B	10:00 am - 1:30 pm - lunch - 2:00 pm - 6:00 pm	6 - 9 am 7 - 10 pm
C	2:00 pm - 5:30 pm - dinner - 6:00 pm - 10:00 pm	6 - 9 am 10 am - 1 pm

With this general pattern in mind it is unnecessary to list the specific working hours, periods of rest and of overtime work for those mines operating 12, 18, or 24 hours a day. However, it can be said that there are always half-hour breaks for meals which are considered as working hours for a normal kung.

Overtime work is permitted to the various shifts 3 hours before or 3 hours after their regular work period - except, of course, for shift C above, in which case overtime work in the heat of the day is avoided. The Kepala or his assistants usually allot the overtime work. To prevent abuses from arising, such work is most often allotted only to those labourers who have completed 25 kungs the previous month and who seem likely to exceed 25 ekungs at the regular rate during the current month. All overtime work is quite voluntary. In fact, the labourers always prefer to work in a mine where there is most chance for overtime and leave when there is little opportunity for it.

Housing

Originally, the inspection of housing conditions by Labour and Health Authorities was limited to the housing of labourers on estates, but the law was later extended to cover housing on mines as well. The standard of accommodation provided on Chinese mines is lower than that provided in dredging companies since the former are "short term" mines and the structures are meant to be temporary, whereas the dredges are "long term" concerns and the housing is consequently of a more permanent nature.

This housing law not only specifies the minimum structures for miners providing

1. Of the 30 mines investigated, it was found that: 3 ceased work at 6 pm
14 " " 10 pm
6 " " 12 pm to 1 am
and 7 worked for 24 hours a day.

accommodation¹ and particularizes the basic requirements of these structures,² but also provides for the inspection of the places of accommodation. Should the Labour or Health Authorities decide that the conditions are unfit for occupation, the miner is warned to make the necessary changes to meet the minimum requirements set up by law; failure to comply with these warnings may result in prohibition of the employment of labourers. Before a new mine can begin operations, the Kongsi must be approved; should there be an increase in the labour force resident in the Kongsi, additional dormitories must be provided,³ plans of which must also be submitted to the Labour Department for approval.

Before the war, Kongsi houses on Chinese mines were not very satisfactory, and the war caused many to fall into disrepair due to lack of maintenance. In the post-war period, the high cost of rehabilitation and the moderate price of tin prevented miners from building new Kongsis; instead they usually only made repairs to the existing dilapidated structures. This did not cause any complaints from their labourers because the first concern of a labourer is the wage rate, the second, food, and probably sanitation, housing, sick-benefits, etc are of much less importance. When the tin price rose with devaluation and the freeing of the metal market, resulting in considerable profits for the miners, the Labour Authorities decided to step in on the behalf of the labourers, who themselves did not insist on improved housing. As a result, certain improvements were required by law, and since then, there has been a gradual and continuous improvement in mining accommodation. This movement has also become positively endorsed by the miners who have realized that one of the means to retain their labourers in a time of acute labour shortage is by improving their housing conditions.

Food

All Chinese mines which are not working on a purely tribute or contract system supply free food to their regular labourers. Casual workers like tin-ore-dressers or construction coolies under contract do not get free food. This is also the case for tailings workers, "lanchute" workers and almost all women labourers. If food is provided for such contract, piece, or tribute workers by the miner,

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1. The minimum structural requirements for miners providing accommodation are:
 - (a) a Kongsi house, and if the space in the Kongsi is insufficient to house the labourers, they must be housed in dormitories;
 - (b) a kitchen;
 - (c) a latrine;
 - (d) provision for a dining room, a bathing place and a satisfactory water supply.

Aside from the required places of accommodation, there may be smaller, more temporary Kongsis called Nai Chang Kongsis for the daily paid coolies who remove the overburden. Besides these, there is also the hut of the Sikh watchman who always lives separately. Other attap or plank structures accommodating women or squatters on the mine are not built by the miner. Separate coolie lines must be provided for each race if the miner employs labourers of different races.

2. The basic requirements of these structures are composed of detailed requisites, such as water-tight roofs of "approved material", cement drains surrounding the structures, and floor area of a specified footage. The Kongsi house must have a porch or enlarged verandah; the kitchen must be separate from the Kongsi. Latrines, water supply and bathing place are discussed under Health and Safety Regulations.
3. In the dormitory, the only thing supplied by the employer is the bunk or bed; the labourer has to supply his own mosquito nets, pillows and blankets.

it is customary to render an account of such food expenditure and to deduct it from the earnings of these workers at the end of the month or contract.¹ Women labourers, even if they are regular workers, seldom get free food; they are "compensated" by being paid a higher wage rate. However, the monthly and daily-paid labourers on time rate per kung are always provided with free food. The only exception is the Sikh watchman, although he sometimes gets a free ration of rice or flour monthly.

Though there are slight differences in the hours of meals due to the change of shifts of labourers and the hours worked in the mine per day, the usual meal times on all Chinese mines are: 9 to 10 a.m. for breakfast, 1 to 2 p.m. for lunch, and 5:30 to 6:30 p.m. for dinner. But meal times last only half an hour for each shift.

It was found that the majority of the 30 mines investigated expended from \$30 to \$32 per head monthly on feeding their labourers,² with the more successful mines spending from \$36 to \$40. In the last few years the cost of supplying food for labourers has increased considerably due to both the increased cost of food-stuffs and the increased generosity of the miners with their free food expenditure, generosity resulting from the higher price of tin and the shortage of labour.

On all Chinese mines where free food is provided, there is generally a written or tacit understanding between the miner and his labourers to the effect that if a labourer fails to do a minimum of 25 kungs in a particular month by being voluntarily unemployed then the cost of the food for that month will not be free. The labourer will only receive free food for a number of days equal to the number of kungs performed by him, the rest being recovered by deduction from his earnings. However, if the employer does not provide the necessary opportunities for performing work, he is responsible for supplying free food to all his labourers for the whole month.

Health and Safety

Health and sanitation conditions on Chinese mines in Malaya are better today than they were before the war. Health and Labour Officers check on conditions of housing, drainage, sewage and water supply, etc. when they inspect the mines. If any of these conditions are found unsatisfactory, the miner will be warned, and if the warning goes unheeded, he will be summoned to appear before the Labour Commissioner or his deputy. A fine or even a cessation of work order may be imposed on the offending employer.

Sanitation regulations fix minimum standards for the number, type and location of latrines. For instance, none are allowed within 100 feet of the water supply. Latrines over mining streams are prohibited. Some mines do not provide bathrooms, in which case labourers bathe in the mining pools. Most mines, however, do have one or two bathrooms; the regulations state that they may not be inside the kitchen, dining, or sleeping room. The water supply is required to be both pure and sufficient. Where there are stagnant pools of water, measures must be taken to prevent the propagation of mosquitoes.

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1. This rendering of an honest account is a vast improvement over the "truck system" of former days when labourers were exploited and cheated wholesale. ("Truck system" means forcing workers to make all their purchases from a company store.)³
 2. Of this total expenditure the average sum spent monthly per head for meat is \$12, for vegetables (including cooking oils) \$8, and for rice \$10 to \$12.

Less official concern is shown for the provision of medical attention. Though maintenance of a first-aid kit is called for by law,¹ two of the mines visited had not even taken this meagre precaution. On some of the mines notices were put up in the Kongsi stating that medical expenses incurred for hospitalization by a labourer would be chargeable to the employer's account, subject to the reservations (1) that they were not due to venereal disease and (2) that the sick or injured labourer had not gone to a Chinese doctor without the previous approval of the employer.² But this concession is not applicable to all casual labour. In only three of the thirty mines was it expressly stated that the cost of medical attention was to be borne by the labourer himself.

Besides this free medical attention, most mines also give an allowance of half-pay for sick labourers.³ There were a few, however, which gave no pay for sickness, but in these cases the labourer could still get free food even if he failed to complete 25 kungs in the month. Some mines gave full pay for the labourer whose temporary disability had been incurred in the course of carrying out his normal duties. If the injury or disability is serious, the employer has to pay compensation according to a certain scale which is flexible and decided upon by the Commissioner for Workmen's Compensation, the labourer often being represented at the hearing by an officer of the Labour Department.⁴

To prevent any serious accidents from machines, no children or women are allowed to tend to them. Also, certain types of power driven machinery must be fenced in and can only be operated if they satisfy certain safety conditions, for which a certificate of fitness is issued by the Machinery Department after an inspection by a Machinery Inspector. Only engine drivers with a certain minimum standard are allowed to be in charge of engines. The Mining Enactment requires that the mine surface must be widened before the mine hole can be made deeper, giving a specified incline, so as to prevent landslides which may injure or bury labourers working at the mine bottom. Specific conditions are imposed upon the storage and use of explosives, especially dynamite which must be kept in a cool place away from combustible or inflammatory materials. Blasting can be carried out on a mine only after receiving a written permit and under police supervision. Wells must be fitted with an apron so as to prevent children from falling in.

Child Labour

The employment of children on Chinese mines is almost non-existent today. The minors who are employed are young adults between the ages of 15 and 19⁵ as the Labour Code prohibits the employment of anyone under 18 for night work, under 16 for work where machinery is used, and under 14 on mines in any capacity. The children who are seen on mines are the dependents of the labourers and are not the employees of the miner. The activities they perform, such as splitting wood or tilling a field, are "voluntary" tasks which are neither recognized nor paid for by the miner.

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1. Chinese mines do not employ dressers or doctors as do the larger estates.
 2. An encouraging development evidenced today is the increasing tendency of labourers to go to the hospital for treatment rather than trust to the skill of the Chinese doctors.
 3. Of the 30 mines, 15 of them had this concession.
 4. See below, page 40.
 5. The majority of these young adults are apprentice engine drivers drawing a salary of \$40 to \$50 per month.

Recreational Pursuits

The chief form of recreation on Chinese mines centers around the reading of the Chinese daily newspapers and listening to the radio or re-diffusion set during off-hours. Twenty-four of the miners supplied Chinese dailies for their labourers to read, while only 10 of them supplied any magazines in addition. Of these mines, 15 had radios, although some without radios often had re-diffusion setse It can be said that there is a general tendency for mining labourers to take an increasing interest in matters not directly related to their own minee

As the average Chinese labourer likes to mix a little speculation with his recreation, games such as Chinese chess, mahjong, and Teen Kow (dominoes) are very popular. Although gambling in this form is illegal, it is usually tolerated,¹ since the inveterate gambling strain in the Chinese makes it almost impossible to stamp out gaming in mines altogether.

Security Measures² and Mine Squatters

The problem of security on mines is very closely linked to and made more difficult by the presence of squatterse These squatters usually cultivate the land around their huts, grow food crops, and rear pigs and poultry; occasionally they seek work on the mines to supplement their incomes and thus form a useful reserve of casual labour. Unfortunately, these squatters are nearly always illiterate and easily intimidated. For this reason and the fact that their homes are often far from towns or on the fringe of the jungle where very little police protection is available, the bandits find it very easy to extort from them supplies of food, medicine and money. Because of this situation, the terrorist bandits are inclined to carry out their attacks and ambushes in and around the mines so as to be within easy reach of their supplies.

The Government, aware of these facts, demanded the co-operation of the squatters in its war on banditry. Although they were not pro-terrorists, the squatters preferred to suffer alonee They dared not co-operate with the Government, for any report of the presence of bandits in the area would endanger the safety of themselves and their families as soon as the police had captured the bandits and left the area. The costs involved in the destruction of their homes and the abandonment of unharvested crops, which was the meaning of resettlement, rose as insurmountable losses and did not encourage the squatters to shift to another place for reasons of security. They also felt confident that the Government would not be as severe against non-cooperation as the bandits would be if they co-operated with the police.

However, there were some instances where the police and the military, who had suffered heavy losses from bandit activity, took drastic steps, ordering all the squatters in an area to abandon their homes and setting fire to all the huts. Such indiscriminate destruction of their property merely antagonised the squatters

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1. Although some miners state that a "harmless game" may prevent the labourer from getting into mischief during his off-hours, other miners are against it mainly because of the adverse after-effect the long hours at gaming has on the labourer's efficiency, and because of the undesirable result of incurring debts and grudges.
 2. The outbreak of terrorist activities which followed the Emergency declared in June 1948 and the measures adopted to meet them by the establishment of strong police posts manned by special constables on mines have been discussed above (see page 10).

49. A police post with feeder-padang. It is a kind of stockade, with sand bags etc. in front and beds inside. These are Special Constables supplied by the Government to protect mines from bandit attacks.

52. A squatter woman feeding her pigs which are in an enclosed area. The pig-sty is behind her. Note the baby strapped to her back. In the background is the palong and some labourers at work carrying planks. By the side of the pigsty are banana trees.

50. A Malay Special Constable on guard duty at the outlook post. In front and at the back are sleeping quarters surrounded by barbed wires. The aerial shows the presence of a radio in the room.

53. A close-up of a squatter hut. Note the structure with its zinc roof and plank walls. Mother and Granny look after children while a friendly woman labourer stops in for a chat. The wicker baskets are for carrying stones and earth.

51. Women squatters at work cultivating crops, chiefly tapioca here. The child is helping his parent. The Tai Kongs is seen at the back.

54. Reconstruction and Resettlement in progress. The posts in front of each house are for stringing the barbed wires later on so as to protect the settlement from unwelcome intruders.



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and made them more susceptible to Communist propaganda as well as arousing a storm of protest from the Chinese community. As a result, a Squatter Committee was formed, among which were well-known Chinese miners and planterse

The recommendations of the Squatter Committee Report were mostly implemented by the Government in its Resettlement Schemes. The Government decided that since it was not possible to give adequate protection to the squatters who were scattered over wide areas, the only way to protect them sufficiently and to deprive the bandits of a valuable base of supplies was to group them into settlements, closer to the towns, fence in the settlements and supply the necessary police protection. This Resettlement Scheme is still in effect, and is proving quite successful.

There are still, however, many Chinese mines (usually those near towns) with squatters on them.e Instructions have been issued to the miners by the Government warning them that they must either ask the squatters to shift or be responsible for their conduct. Few miners are willing to accept this responsibility unless the squatter is one of his regular employees, so the result has been a steady decrease of squatters on mines.e This strict supervision of squatters has made the task of protecting the miners and mine personnel very much easier.

1. It is unlikely that the squatters will disappear altogether, since a large number of the married male mining labourers still live with their wives and families in separate huts built on the minee

Labour Code

Originally the Federated Malay States Labour Code applied chiefly to Immigrant Indian Labour on estates and plantations, but in recent years the majority of the provisions in this Code were made to apply to Chinese labour. The Chinese Protectorate (now Secretariat) was the department which first looked after the welfare and protection of Chinese labourers; it was also the chief instrument for the settlement of disputes between the Chinese labourer and his employer until the inception of the Labour Department. Although its role has now been largely taken over by the Labour Department, the Chinese Secretariat still plays an important part in arbitration and conciliation in Chinese labour disputes.

However, it can be said that until quite recently the average Chinese labourer did not particularly like to appeal to the paternalism of the Labour Department, but since he has come to know of the protection and the fair treatment accorded by this department, he has as a result more often turned to it for the protection of his rights. In the absence of a strong, well-organized, and democratic trade union movement, this is a necessary trend. This applied especially to Chinese mining labour which has had no trade union of its own since the Emergency.

The Labour Code stipulates certain terms to be found in labour agreements. The payment of wages cannot be deferred by more than one week, but mining labourers are willing to extend this period without laying complaints before a Labour Officer if they know that their employer cannot make ends meet. Termination of an agreement requires one month's notice in the case of salaried staff and one week's notice for daily paid labourers, a requirement which is binding on both parties. Notices of termination of employment are usually posted on the mine's bulletin board. The Labour Code prohibits agreement to pay wages in other than legal tender or provisions restricting the place and manner of spending wages. No employer is allowed to supply opium or intoxicating liquor to his labourers as part payment of their wages. However, a miner who has written permission from the Commissioner can be permitted to open a shop to supply certain commodities to his labourers. But such retailing concerns usually belong to a private individual other than the miner.

The code also requires employers to send in to the Mines and Labour Departments monthly, quarterly and annual returns covering the labour force employed, the production of ore, the machinery employed, etc. All Chinese mines must exhibit in a prominent place a "working board" of labourer's names, their occupation and shifts, and the number of tasks or kungs each labourer has ~~performed~~ each day, from which the mine clerk totals the daily records for each month.

There are many specific provisions in the Code relating to housing and health and sanitation conditions, many of which were mentioned above.¹ There is also a provision that employers are required to pay maternity allowances to pregnant women labourers²

Insurance and Compensation

Under the Workmen's Compensation Ordinance, an employer is liable to pay compensation to his workman if the latter suffers any injury or sickness arising out of his work. There is a certain scale of compensation depending on (1) the

1. See page 36.

2. But it is very rare indeed, said a Chinese Labour Officer when interviewed, to find pregnant women being employed on mines.

degree of incapacity or loss of earning power resulting from the accident and (2) on the salary or wage of the injured workman.¹ However, there are many degrees of injury for which the compensation is not fixed. In such a case, if the injured workman is not satisfied with the compensation offered by his employer, he can appeal to the Commissioner of Labour to put his case before the Commissioner for Workmen's Compensation. The Commissioner of Labour or his deputy will only act on behalf of the injured worker if he finds the employer intractable to arbitration in his office. In this way the worker is ensured of a fair compensation.

Because of this liability to pay Workmen's Compensation, nearly all Chinese miners insure their labourers with a private insurance company.² The procedure they usually follow is to take out such an insurance policy for half yearly or yearly intervals and to insure all the salaried staff but only about 1/3 of the daily paid labourers. The reason for failure to insure all labourers is that while the salaried staff are more or less permanent for the whole period covered by the insurance, the daily paid labourers are more mobile and may change in composition and number during the period covered. Also, the likelihood of accidents only occur when the labourers are at work and since the total labour force is split into various shifts, only part of this force at any one time will be exposed to the danger of accidents.³

In the case of any accidents or diseases covered by the policy, the miner must inform the Company within 48 hours and if the miner does not take reasonable precautions to prevent accidents or does not comply with the statutory obligations, then the miner, and not the Company, becomes liable for the payment of the compensation. Any differences between the miner and the Company are referred to an arbitrator or arbitrators appointed by both parties.

Labourers who are employed by contractors or subcontractors are not insured by the miner but by their contractor. These workers are not, therefore, covered by the policy taken out by the miner unless it is expressly stated to this effect in the agreement by the miner with the Company. It is actually doubtful if contractors and subcontractors really insure their workmen against accidents.

Inspection and Supervision

The Annual Report of the Department of Labour, Federation of Malaya, for the year 1949 states that:

1. The estimated total wages per annum includes the value of board, lodging and other considerations in addition to actual money earnings.
2. It should be noted that many Chinese miners themselves act as insurance agents.
3. However, this raises an important technical point. Section 5 of the General Conditions (Workmen's Compensation Policy) requires that:

"The name of every employee together with the amount of wages, salary and other earnings, shall be duly recorded in a proper wages book. The insured (i.e.: miner) shall at all times allow the Company to inspect such a book and shall supply the Company with a correct account of all such wages, salaries and other earnings paid during the period of insurance within one month of such (a) period of insurance"

The problem arises when the labourer who has been insured for a year, leaves only to have his replacement meet with an accident. In spite of this written provision, there often seems to be a tacit agreement between miner and insurance agent that all labourers will be insured no matter whether their names are entered in the book or not.

"...officers of the Department now deal with every nationality of workman in the country, and their activities cover practically every aspect of his life. Under the terms of the Labour Code, an officer of the Department of Labour is empowered to enquire into any matter concerning disputes as to wages, the determination of agreements or contracts, misconduct, food, medical attendance, deaths, mining usage and mining complaints, Government inspections, sanitation or any other questions relating to an employer or labourer dealt with under the provisions of the Code. He may, as the result of such enquiry, institute such civil or criminal proceedings, for and in the name of the labourer, as he deems necessary. In certain cases he may decide the dispute himself and may make any order which he may deem just for the purpose of giving effect to his decision, and his order is enforceable in the same manner as the judgement of a Court. In the course of his work he ensures that the provisions of the Labour Code are observed in regard to agreements, wages, days and hours of work, overtime payments, maternity allowances and allotments, at as regular intervals as possible. He carries out personal inspections of places of employment, on occasion in the company of the Health Officer, and examines conditions of housing, sanitation, water supplies and medical treatment and of the education of children and the care of infants. He issues permits for the establishment of provision shops on plantations, collects and tabulates labouring population and other statistics from all places of employment and decides upon the approval or rejection of plans for labourers' dwellings to be built within his jurisdiction."

One of the most important functions of the Labour Officer is to settle labour disputes. Since the Emergency, when almost all trade unions under communist influence - including all those on Chinese tin mines - were broken up, the work of arbitration and conciliation has increased. Often the settlement of a dispute depends not on the justice of the claims or grievances of either party but rather on the ability of the Labour Officer to retain the confidence of both parties.

Outside their statutory duties, such as those in relation to the Workmen's Compensation Enactment and the Children and Young Persons Enactment, Labour Officers also try to influence the employers towards the betterment of working conditions for their employees. The above mentioned Annual Report states that:

"...measures are discussed for the provision of playing fields, reading rooms and drama halls, more progressive housing plans, electric lights and cooking arrangements, facilities for the cultivation of foodstuffs, and the raising of livestock, the establishment of Works Committees or 'Panchayats', the investment of savings and in general, the continuous raising of the labourer's standard of living."

There is little doubt that frequent inspection is the most effective method of ensuring observance of the Labour Code. This is particularly important in Malaya because of the absence of well-organized and strong trade unions, and the ignorance of the majority of workers who are illiterate and unaware of their rights. These inspections are also of importance because the majority of the information collected by the Labour Department on the conditions of employment comes from the observations of the inspecting officers.

Unfortunately, the present unsettled state of affairs has caused the lack of effective inspection. The Labour Department is understaffed, with some of its officers being recruited to do work connected with the Emergency and the resettlement of squatters. Inspection of certain dangerous areas has been prohibited by Police regulations, while visits to other areas have been limited by the need

eforea police escort. As a result of these obstacles the places of employment have not been inspected as frequently as is desirable. The great importance which the International Labour Office attaches to labour inspections is shown by the fact that this was the chief subject of discussion in many recent conferences of labour leaders in Asiae

CONCLUSIONS

In reviewing the trends in the tin mining industry as a whole one comes to the following conclusions:

(1) The tin mining industry is not likely to expand much in the future and in fact - may very well contract as the better tin-ore bearing lands become exhausted.

(2) Unless new lands are prospected soon, the output and number of operators may decline soon. The chief reason for the present large number of operators is the exceptionally high price for tin since the Korean hostilities began.

(3) Estimates made by various geologists in the late 1930's prophesied the exhaustion of this raw mineral in Malaya within 25 to 50 years if the rate of extraction of the 1930's were consistently maintained. If this proves true, then the duty on tin exports, which forms a very large percentage of the Federal Government's income, will have to be replaced by some other source. One eminent authority, Sir Louis Fermor, in 1938, suggested the gradual building up of a large reserve from the export duty on tin and investing it so as to ensure a regular income to the government when the ore becomes exhausted. Though one sees the rationale behind this recommendation, at this late stage the export duty on tin will have to be substantially increased if the Government is to build up a reserve large enough to meet its needs. Such a move will not be well received by the miners, especially the European-owned dredging companies which produce 2/3 of the output.

(4) The tin industry, like rubber, is subject to wide fluctuations in price and the biggest influence on the price is U.S. purchases. If the U.S. should stop or cut down its purchases drastically, the Malayan tin industry will suffer price reductions and a fall in employment, which in turn will affect the rest of the economy. The present price fixed by the Reconstruction Finance Corporation at \$1.18 per lb is reasonably high and gives quite a margin of profit for efficient producers. As long as this price is maintained, the industry will, as a whole, be stable.

(5) The present shortage of mining labour is due to three principal causes: (a) There has been no influx of immigrants from China since 1939, and those who came between 1934-1938 just barely replaced those who had left of their own accord or had been repatriated back to China by the Malayan Government during the depression years. (b) The high price of rubber resulting in high wages has drawn some mining labour away from mining. This is especially true where the profit sharing system exists in rubber smallholdings whereby a labourer may receive as much as 50% of the output as his share. (c) The insecurity generally associated with mining areas has deterred new employees from entering and the Government Resettlement Scheme for squatters has removed a steady source of supply of casual mining labour.

(6) While it is true that wage rates have increased very much compared to pre-war, a study of the dividends paid by the various large companies post-war seem to indicate that if the working force were strongly unionized, the workers could probably have obtained higher wages than they are now getting.

(7) The racial proportions in the present mining labour force is not likely to undergo any changes. The Chinese miners will continue to employ mainly Chinese labourers, while the European dredges employ some Indians, and Malays for semi-skilled and skilled work of a mechanical nature. The overall racial proportion in the labour force will probably continue to be 8:1:1: Chinese: Malay: Indian.

(8) Finally, although mines are not operating at full capacity as compared to 1940 and output is only 70% of the pre-war peak, the money profits have increased greatly, resulting in a general improvement in wages and working conditions for the labourers.

APPENDIX

Condensation of Printed Questionnaire Sent Out to Chinese Mines

For Private Use Only

A. Information Regarding Mine

Name of Mine; Type of Ownership; Name of Owner; Nationality (race); State; District; Acreage under Mining Lease.

Method of Mining; Annual Output (piculs): 1949, 1950; Total Labour Employed (December 1950): European, Chinese, Indian, Malay, Others.

Please Note General Instructions:

1. Race - Cantonese, Hokkien or Hakka, etc.
2. Method of Mining - Gravel Pump, Hydraulic, Dredge, etc.
3. Birthplace - China, Malaya, India, etc.
4. Literacy - Can read and/or write Chinese, English, etc.
5. Residence - in Kongsi or own house on Mine, or outside
6. Dependent Labour - refers to daily or monthly paid workers by mine owner.
7. Independent Labour - refers to contract or tailing workers, tributors, dulang-washers, etc.
8. Marital Status - Married (m) or Single (s)
9. Please fill in (1st) Daily Paid Male Labour.
(2nd) Daily Paid Female Labour.
(3rd) All Monthly Paid Labourers
(4th) All Independent Labourers
10. Please fill in and return all forms before January 20, 1951.
11. If returned before January 10, 1951, please post to Siew Nim Chee, 1723-5 Cochrane Road, Pudu, Kuala Lumpur.
12. If returned after January 10, 1951, please post to Siew Nim Chee, University of Malaya, Singapore.

B. Information Regarding Labourers

Name of Labourer; Age; Sex; Nationality, race; Where Born; Marital Status; Literacy; Residence;

Dependent Labour: Occupation, Wage Rate;

Independent Labour: Type, Occupation, Group or Single, Wage Rate;

Average Monthly Income; Overtime in December; Number of Days of Unemployment in December;

Worker's Insurance: Amount Insured, Yearly Premium

C. Conditions of Labour

1. Hours of Work.

- a. What are the hours of work?
- b. What are the hours of breaks?
- c. What are the hours of meals?
- d. What are the hours for night shifts?
- e. How many holidays each year?

2. Housing:

- a. Is any of the following supplied to the worker:
(i) Mosquito net, (ii) Blanket, (iii) Pillows, (iv) Beds?
- b. Any other provisions by management, e.g. lights, etc?

3. Health and Sanitation.

- a. How many latrines on mine?
- b. How many bathrooms on mine?
- c. Is medical attention provided free by management?
- d. If not, any other concession for illness?
- e. Is there a dispenser, dresser, or first aid kit on mine?
- f. How many fatal accidents this year?
- g. What was the cause of death?

4. Food and Drink.

- a. What is the total expenditure on food per head per month by management?
- b. How much is spent on meat?
- c. How much is spent on vegetables?
- d. How much is spent on rice and flour?
- e. Do women and children get free food supplied?
- f. How many "feasts" are there each year?
- g. Is Chinese tea the usual drink supplied?

5. Recreation

- a. Are there newspapers, magazines, radios, gramophones, etc. supplied by the mine?
- b. Are games like mahjong, dominoes, chess, etc. played in the mine?
- c. Is there any other kind of recreational pursuit?

APPENDIX

WEIGHTS

12 <u>Tahils</u>	=	1 Pound
16 <u>Tahils</u>	=	1-1/3 Pounds = 1 <u>Katty</u>
100 <u>Katties</u>	=	133.3 Pounds = 1 <u>Picul</u>
16.8 <u>Piculs</u>	=	2240 Pounds = 1 Ton
1 <u>Gantang</u>	=	6 <u>Katties</u>

CURRENCIES

100 Cents	=	S \$1.00 (Straits Dollar)
S \$1.00	=	2 Shillings 4 Pence = United States \$0.32
S \$8.57	=	£ 1 (Pound Sterling)

TERMS

Amang: tin ore with black metallic impurities

Attap: palm-leaf thatching

Changkol: a hoe

Chue Tsai: literally, "piglets" term applied to Chinese emigrants under the "credit-ticket system"

Datoh: animist spirit of the mine

Gravel pumping: method of mining using an engine to supply power to monitors and to suck up tin bearing material to palong through pipes.

"Ground": tin ore bearing earth.

Hangkong: supervision or purchaser of general provisions on a mine

Hydraulic: use of water conducted through long pipes from hills to supply power for mining.

Ka Kung (Cantonese) or Ka Han (Hakka): overtime work.

Kepala: overseer or headman.

Kheh Thau: headman or leader.

Kongsi: building to house labourers

Kongsi Kung: unskilled labourer

Kuen Pan: shift leader.

TERMS (continued)

Kung: eight-hour work period.

Kung Pai: daily work sheet or placard.

Lampang: small scale type of single lane palong lying on sloping ground, using water and manual labour only.

"Lanchute": see Lampang.

Lau Kheh: old residente

Mentri: a Malay ruler

Monitor: a nozzle from which water is shot out at high pressure to break up ground containing tin-oree

Open Cast: method of mining by making deep dry excavations and use of trucks and trolleys to raise ground to a sluice box.

Paddock: walls or sides of mine hole.

Palong: long, raised wooden concentrating flume.

Pong Shau: semi-skilled labourer.

Shak Mee: tin ore

Sin Kheh: new immigrant from Chinae

Sump: water hole at bottom of mine from which ore-bearing mud is pumped to palong.

Tailings: waste material falling off the end, or tail, of a palong.

Towkay: wealthy owner or head of business

Tsap Kung: odd job man