

Ensayos de Reseña/Review Essays

Is Mining Still the Wage of Chile?

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- *Historia de la minería del hierro en Chile*, by Augusto Millán. Santiago: Editorial Universitaria, 1999.
- *Capital transnacional y trabajo. El desarrollo minero en Chile*, by Rafael Agacino, Cristián González and Jorge Rojas. Santiago: Lom Ediciones, 1998.
- *Dilemas y debates en torno al cobre*, by Patricio Meller. Santiago: Dolmen, 2002.
- *Royalty. Regalía o renta minera. Lo que solo Chile no cobra*, by Jorge Lavandero Illanes. Santiago: Ediciones Lafken, 2003.

On 11 July 1971 the Government of Salvador Allende, with the unanimous support of the Chilean congress, nationalized those mines considered to be under the *Gran Minería del Cobre*. These were Chuquicamata, El Teniente and El Salvador, which together contributed over 70 per cent of Chilean exports and almost 20 per cent of fiscal revenues. As it happened, the expropriated mines belonged to US transnational corporations. Perhaps because of this, this nationalization (and the previous ‘Chileanization’ during the Frei government in the 1960s) was seen by Chilean and foreign scholars as emblematic of a revolutionary change which challenged a situation of dependency and exploitation of the Third World by transnational capital. As a result, a flurry of studies on Chilean mining was published between the late 1960s and early 1980s. With the democratic collapse in 1973 and the ensuing economic and cultural recessions of the 1980s, academic interest in Chilean mining receded. The transition to democracy in Chile has slowly created the conditions to re-evaluate the role of mining in the country from several disciplinary and ideological perspectives, and the books under review here are a good sample of this healthy development.

In *Historia de la minería del hierro en Chile*, mining engineer Augusto Millán analyses iron mining in Chile from the end of the nineteenth century to the present day. Iron mining on a significant scale started in Chile only at the beginning of the twentieth century. Being an abundant metal worldwide (large deposits of very high grade), its price was relatively low and its main cost was transportation to the steel works. As Chile did not have steel works, there was no demand for the mineral. However from the late nineteenth century, manufacturing entrepreneurs strove to industrialize the country and demanded from successive governments, with relative success, protective measures for the emerging national industry. In this context the *Sociedad de Fomento Fabril* (SFF) was created and, in the late nineteenth century, received and evaluated two projects to erect steel works in Chile, asking the government for protection. Although neither of these projects materialized, the idea of the establishment of steel works became a permanent aim of the SFF during the

1880s and into the twentieth century. The governments of the day thoroughly supported this endeavour and, at the suggestion of the SFF, financed a study of iron deposits in the country and a feasibility study for steel works, both with the aim of interesting (especially French) steel industrialists to carry out this project. Contacts were made in France in 1890 but it took almost 20 years for the project to materialize. Finally the French firm Haut Forneaux, Forges et Acieries du Chili, a subsidiary of Schneider et Cie, was formed to erect steel works in Chile under heavy protection from the government (including a guaranteed five per cent minimum profit on the capital invested). The first furnace was lit in 1910 in the south of Chile where firewood was plentiful. However, due to unforeseen reasons the works became paralysed after only 14 months. Although the ostensible reason for the failure of the project was technical (the firewood used for the furnaces was too damp), there was, according to Millán, another reason for Schneider et Cie to abandon the business. Schneider et Cie had entered the business in 1903 when the firm was suffering from lack of demand for its products, therefore the steel works in Chile provided an outlet for the 'entrepreneurial and managerial spare capacity' of the firm. In contrast, by 1913 the firm, which specialized in the manufacture of weaponry, was recovering and in expansion and refused to continue the project. This was despite the fact that the Chilean government had fully accepted fresh concessions demanded by the company in 1912. Furthermore the enterprise had acquired and begun to exploit the rich iron ore of El Tofo mine in northern Chile, and had signed a profitable contract to let the mine to the American Bethlehem Corporation for a period of 30 years. This contract established a payment of 1.6 million Chilean pesos (US\$250,000) per annum as rent plus a further royalty per ton exported, which Millán estimates at around US\$ 40 million of 1955 US dollars; sums for which the French company paid no taxes until 1945, when a tax of 50 per cent was imposed by the Chilean government. Taking into consideration all these circumstances, the steel works in Chile were, for the French company, at best insignificant. Millán considers the attempts to create a steel industry in Chile as a 'successful failure', as it did not achieve its main purpose, which was to satisfy Chilean demand for steel with iron produced and processed in the country. On the other hand, it showed the potential of El Tofo, 'the best Chilean iron mine ever'.

Until 1971, when the mine was expropriated by the Allende government, El Tofo, under the control of the Bethlehem Corporation, exported over 52 million metric tons of iron ore with an average grade of 63 per cent. Moreover, in 1934 the Bethlehem Corporation bought the iron mine El Romeral (in Región IV, near La Serena) and began developing it in the early 1950s when of El Tofo's exhaustion seemed imminent. El Tofo produced an additional 31 million tons of iron ore under the Corporation (from 1956 to its expropriation by the Chilean state in 1971). Operations on such a scale required heavy investment, but unfortunately the author does not provide total figures (or an estimate) of this investment, nor does he provide more than hints of the taxation applied to the Corporation by the government. Millán suggests that it was fair, and probably it was. Although taxation proper was minimal as profits shown in the balance were small, the government applied indirect taxation via a special exchange rate. The Corporation was also obliged to deliver, at cost price, enough iron ore to supply the state-controlled firm *Compañía de Aceros del Pacífico* (CAP, see below), but CAP and the Chilean state made low interest rate loans to the Corporation.

After the end of World War II the price of iron ore increased considerably. This

plus other facts such as a large number of good iron deposits close to the Chilean coast, changes in Chilean iron mining legislation and so on, created the possibility of medium sized iron mining along with the *gran minería* carried out by the Bethlehem Corporation and CAP. Non-existent at the beginning of the 1950s, the *mediana minería* achieved production of 5.9 million metric tons of iron ore in 1968 (51 per cent of Chilean production for that year), which later declined until its extinction in 1980. Of the several companies involved in this expansion, two are studied in detail by Millán, the Compañía Minera Santa Fe and the Compañía Minera Santa Bárbara. Both companies were created by Hungarian immigrants and started to operate with minimal capital, becoming successful enterprises worth several million US dollars in the space of a few years. The similarities did not stop there. Both companies benefited from tax exemptions made by the government to iron mining, they were partly financed by US capital, and they made fraudulent tax returns (p. 114).

The Compañía de Acero del Pacífico S.A. was created in 1946 with 53 per cent private capital and the rest contributed by the state, although the effective control was in the hands of the latter. As a parastatal it received tax exemptions for 20 years and had the capacity to negotiate substantial loans from development and private international banks. The steel works were erected in Huachipato in the south of Chile close to energy sources (large deposits of coal and hydro-electric power) and inaugurated in 1950 with an initial production capacity of 180,000 metric tons of steel ingots per annum. For twenty years CAP relied on the iron ore supplied, at price cost, by Bethlehem Corporation. Later in 1959, CAP bought the mine Algarrobo (in the province of Atacama, now region III) from the Dutch company of Wm. H. Müller for US\$ 23 million. To develop the mine (apparently the mine had received little investment), CAP obtained a US\$ 15.5 million loan from Eximbank to buy the necessary equipment, build roads and port facilities and so on. According to Millán this was a sound business as the profits of Algarrobo were initially very high, and during its productive life (1961-1998) it had an average annual output of over 2 million tons of iron ore.

Allende's government (1970-73) brought about several changes in the way CAP operated. Most shares in private hands were bought by the state so that, by the end of 1973, the state controlled more than 99 per cent of the shares. Also the properties of the Bethlehem Corporation and Santa Bárbara were incorporated into CAP. Unfortunately Millán does not analyse this period, which is crucial for understanding socio-economic processes in Chile, including mining. Nor does he refer to the apparently scandalous privatization of the company in 1987. Instead he concentrates on technical problems of production in the last 25 years, which will be of more interest to the mining engineer or geologist than to the historian or those interested in political economy. In summary, *Historia de la minería del hierro* is a fascinating account of iron mining that answers important questions about the relation between state/private and Chilean/foreign enterprises, but ignores others that are equally important.

In *Capital transnacional y trabajo. El desarrollo minero en Chile*, Rafael Agacino and colleagues present a critical view of the development of Chilean mining since the 1973 coup d'état, emphasizing the developments of the 1990s, especially in relation to foreign investments and the situation of mining workers. Although mining employs only 2 per cent of the Chilean labour force its contribution to the Gross Domestic Product is considerable (about 8 per cent) and its importance in-

creases if exports are considered. In 1996 for instance the mining sector contributed US\$ 7,324 million or 47.7 per cent of the total Chilean exports. This proportion was roughly the same as that of the previous years, but inferior to previous decades (in the 1960s this rate was well over 80 per cent). During the period considered by Agacino *et al.* (1986-1996), and indeed in previous decades, copper constituted the bulk of mining exports (Table 2.2). This leading position is also reflected in Chilean mining production where copper contributed 86.5 per cent of the value of production, gold and silver 7.3, iron 1.4, non-metals 2.2 and fuels 1.8 per cent in the year 1995.

After the 1971 nationalization of the Gran Minería, the parastatal Codelco (Corporación del Cobre) became the largest Chilean copper producer, contributing more than 80 per cent of the total production. In recent years this proportion has been diminishing. Thus Codelco's contribution dropped to 52 and 39 per cent in the years 1994 and 1996 respectively. This is not a result of a drop in Codelco's production, which in fact has continued to grow at a slow pace, but to a large increase in the investment and production of foreign companies operating in Chile (Table 2.5). Agacino and colleagues are very critical of the tax position of foreign (and private) companies. While Codelco pays taxes equivalent to US\$ 515 per metric ton of copper produced, the private sector pays on average only US\$ 138. In many cases private companies pay no duties for their massive exports, as they declare no profits. The authors conclude in this respect that the 'tax legislation permits that, increasingly, a large part of the mass of the mining rent be appropriated directly by the private sector, mainly transnational' (p. 74).

In relation to mining labour, Agacino *et al.* show that efficiency or labour productivity has increased substantially over the period 1987-1995. This is particularly noticeable in the case of the medium-large mining enterprises (mainly TNCs), is less marked in the state enterprises, and negative in the case of small enterprises, but the latter have little weight in the context of Chilean mining production. A significant part of this productivity can be attributed to subcontracting. Thus although the total number of workers has remained almost the same – about 80,000 – the proportion of labourers working directly for the mining enterprises declined from 93 to 67 per cent in this period. One of the problems detected in the case of the subcontracted workers is the number of fatal and non-fatal accidents that they suffer. These tend to be higher than those employed by the mining companies (especially those companies in the state sector). Part of the explanation of this high accident rate lies in the nature of the work they perform, but another important aspect is the lack of training in labour safety.

Agacino and associates summarise the situation of workers in Chilean mining by saying that the best conditions in terms of shifts and safety are those of workers directly recruited by the state sector, second come workers in firms subcontracting with the state sector, then workers directly employed by private mining companies, and finally the workers of subcontractors of the mining companies. Of course, workers of subcontracted companies are normally temporary employees, which adds another negative aspect to mining employment in today's Chile.

Over the last 50 years or so, affiliation to trade unions among mining workers has been extremely high, reaching its highest point in 1982 when 92 per cent of mining labour was affiliated with trade unions, compared with 11.8 per cent at the national level. However, this rate has steadily diminished since then, to reach only 47 per cent in 1996 (nationally the figure was 12.4 per cent). Agacino *et al.* explain

this situation with reference to three factors: a) the crisis of the coal mining sector, which had a tradition of trade unionism; b) the reduction in the number of workers at Codelco (from 27,400 in 1990 to 19,700 in 1995), also with a strong trade union tradition, and c) The expansion of the private sector in mining, with a large number of subcontracted workers. In this sector there is no trade union tradition, it is more difficult to organize trade unions, and there have been no new successful trade union strategies (p. 186). Despite this, the conditions for trade union activity have marginally improved since the end of the Pinochet dictatorship in 1990. In the mines of Codelco the workers affiliated with the *Federación de Trabajadores del Cobre* (FTC) have signed a strategic alliance with Codelco that implies negotiating increases in productivity and conditions of work with their employers in a non-conflictive way. Workers employed by subcontractors of Codelco, affiliated with a number of trade unions, have also benefited from this indirect association. In fact their demands to include better wages and conditions of work in their contracts with subcontractors are addressed to Codelco, and they have in some cases (depending on the division of Codelco for which they work and the attitude of different executives) obtained some partial concessions. In the mines owned by the private sector there has been very little progress and labour relations are marked by spontaneous and semi-legal actions.

Despite these problems, Agacino *et al.* are optimistic. They believe that an emergent identity, not directly linked to trades or industrial plants but simply to the fact of being a worker is developing. Considering the process of trans-nationalization of mining as well as other sectors of the economy, mining workers face the task of 'building up a trade union movement with an identity and representation much more universal than those which had as a reference the nation-state' (p. 227).

The two other books included in this review are complementary. In *Dilemas y debates en torno al cobre*, civil engineer Patricio Meller and associates make a sober and academic study of issues relevant to recent copper mining policies. On the other hand Senator Lavandero in *Royalty. Regalía o renta minera* makes a passionate (and somewhat disorganized) appeal to Chilean public opinion to change tax laws relating to the *Gran Minería del Cobre* (GMC). This would suggest that Meller's book is a better research tool than Lavandero's, but for the specialist the opposite is true as will become clear below. In Meller's collection of articles, his own contribution 'Mining Policy about Chilean copper' is certainly the longest and most valuable (pp. 11-77). In it he summarises and makes an important contribution to the most relevant topics concerning Chilean copper (the impact of copper mining on the Chilean economy, nationalization of the GMC during the 1970s, new foreign investment in the 1990s and technological innovation). As one of the directors of Codelco, Meller is cautious (and sometime misleading) on sensitive issues. In contrast with Lavandero, who has deep reservations on foreign investment (FI), Meller is fairly uncritical of FI in Chilean copper mining and accepts it as a given fact. For instance, on the question of taxing foreign capital, he prefers to use the figures provided by the companies, which put them in a better light in terms of their contribution to Chilean state income, rather than those provided by the *Servicio de Impuestos Internos* (Inland Revenue) (pp. 62-3).

This respect for FI is also clear in his analysis of the decline of full processing of Chilean ore in the country since FI re-entered the Chilean GMC in the late 1980s. This has meant that the proportion of copper concentrates of little added value exported by Chile has increased from 7 to 32 per cent of the total copper ex-

ported. Meller certainly regrets this development, as, according to his information, US\$ 1 billion per annum are lost to the country through this process. However he justifies the situation by referring to a study which indicates that unless the processing plants are guaranteed a minimum supply of ores from Chilean sources, their profits would be low (8 to 9 per cent) and the business would be unattractive to Chilean or foreign investors. He also notes that all the foreign companies operating in Chile already had long-lasting contracts with foreign refineries. From these correct premises, however, he concludes: 'It is not possible to use the rule that it is convenient to process all the natural resources existing in a country. In the case of copper, *even the arguments to refine all the copper production are questionable*' ... (p. 49) [emphasis added]. Meller is probably right in the first part of this quote, but the second part is untenable. The study that he cites to indicate Chilean losses of US\$ 1 billion per annum demonstrates that smelting on a large scale is possible in Chile, provided that the government enacts legislation to encourage it. Surely Meller needed to discuss these arguments before reaching such a bold conclusion.

The last controversial point in Meller's book is his criticism of the economist Orlando Caputo's thesis that asserts, among other things, that FI in Chilean copper is responsible for the overproduction of recent years and therefore for the drop in the price of the metal since then. The criticisms of this formulated by Meller are probably correct. He argues that as the demand for copper is not perfectly elastic, a reduction of the levels of copper production would not be compensated for by the rise in its price and, as a result, the total income of the country would decrease (pp. 57-9). However in Meller's analysis 'Chile' means companies producing copper in Chile (of which the foreign companies account for over 50 per cent of the copper produced). That is, to discard Caputo's thesis rather than a caricature of it, Meller has to demonstrate that the income or benefits gained by the Chilean state or economy exceed that of a scenario without the massive FI of the 1990s.

Senator Lavandero has discussed the issues mentioned above in previous books, reports, and speeches in the Chilean senate. In *Royalty. Regalia o renta minera* he concentrates on his proposal to charge a royalty on copper exports as the only means of avoiding the tributary evasion practised by some foreign companies. His argument is sound since the possibilities of tax evasion are manifold, as shown in the books of Millán and Agacino *et al.* reviewed above. To argue his case Lavandero presents a battery of facts, including details of legislation in the most important mining countries, and adds as annexes several short studies of legal, economic and political issues related to mining taxation. The conclusion is clear. Chile is one of the most liberal countries in relation to mining taxes (pp. 202-3) and it is one of the best-endowed countries in the world in terms of mining potential (pp. 218-9). Therefore it can and should increase taxes, and certainly should apply a royalty to copper producers as it is applied worldwide. Unfortunately the proposal is vague, as it does not provide an indication of how it could be applied and to whom. In the annexes, contributors suggest different percentages and ways of perceiving it, but in the main text Lavandero only indicates that it should 'benefit the development of the regions and municipalities where the mines are located, because the workers of these municipalities and regions are those who will lose their incomes when these mines are exhausted' (p. 93). This sounds good since some of the copper-producing regions in Chile are the poorest and most polluted of the country. The actual percentage of the royalty is of course a question of negotiation between the political parties, the government and the copper-producing companies.

The books reviewed here are important contributions to the growing literature on Chilean mining. They should be compulsory reading not only for scholars researching in the field, but also for Chilean politicians who have been debating the issue of adequate taxation for large copper companies for the last few years. Mining is probably no longer the wage of Chile, as the Chilean economy has diversified in its exports, and only 43.5 per cent of these consist of mineral products. Yet the pressing needs of the country (the struggle against extreme poverty, for health care, education and the like) suggest that the efforts of Chilean politicians (on all sides of the political spectrum) pressing for higher levels of taxation for mining exports might have some success in the future, despite the neo-liberal ethos of the Chilean political class. Chilean citizens and politicians *tienen la palabra*.

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