

Mining in Brazil – a short historical background

By the Raw Materials Group

In the 17th and 18th centuries an important mining industry was emerging in Brazil. For a number of reasons it never could develop into a base for the industrialization of the country.

The Raw Materials Group has made this short historical sketch as a background to the following articles on the Brazilian mining industry.

About 1590 an exploring party that set out from Sao Paulo reported the finding of iron ore in a mountain 100 km southward. Gold and silver were also reported. Acting on this information the Portuguese government in 1597 took measures to promote the mining industry in the colony. One or two forges were set up, at a place subsequently called Ipanema, and commenced to produce iron around 1600. Production here continued until about 1629. It has been assumed that this was the first iron to be manufactured on the American continent.

About a hundred years later the rich gold fields in the district of Ouro Preto, former capital of the state of Minas Gerais, were discovered. In 1700 a gold rush was fully established. This led to improved communications, which opened up the most important of the Brazilian iron ore fields to permanent settlements and further exploration (the gold was usually found in iron ores).

Most of the hard labour in the gold mines was done by thousands of slaves imported from Africa. It is believed that these slaves brought with them the knowledge of primitive methods to produce iron and that they in fact were the first to produce iron, long before the definite establishment of the industry.

The first direct process plant in Brazil was established in 1812 by Eschwege, who also gave the name *itabirite* ("brilliant stone" in the local Indian dialect) to the iron bearing quartzite that makes up the richest iron ores in Brazil. In 1864 the number of furnaces in Minas Gerais had increased to 120, many of which were still in operation in the first decade of the 20th century.¹

For a number of reasons, the most important being the penetration of the Brazilian market by the rapidly expanding export oriented iron and steel industries of Europe, the Brazilian iron industry never was allowed to mature. In fact it experienced a dramatic decline, as

described by a contemporary European historian:

"For many years the mining industry in the province of Minas has been in a state of rapid decline." (...)

"An important reason to this decline is the extremely high price on slaves. The mining has mainly been carried out by companies or rich landowners that can dispose of a large number of slaves.

Earlier, when a slave could be bought for only 200-300 mil-reis and received a weekly pay of only 1 mil reis, it was possible to mine low grade deposits of gold or diamonds. Today, however, the price of the negroe and his salary have risen four- or five-fold and thus only richer deposits can be mined with success."

Tschudi: *Minas Geraes, Brasilien*, Gotha 1865.

But the mineral resources of Brazil were soon again to be at the center of world interest.

The run on Brazil's iron ore

In 1908 President Theodore Roosevelt promoted a Congress in Stockholm for research on the industrial uses and conservation of world natural resources. At the time there was a widespread fear that the rapidly increasing consumption would deplete mineral reserves in the industrialized countries. The first subject of discussion of the Congress was the evaluation of world resources of iron ore.

Before this Congress the richness and abundance of the iron ores in Brazil had been largely unknown in the industrial countries. The report by the Brazilian delegate to the Congress revealed that Brazil had reserves of 3 500 million tons. This aroused great interest and shortly after the Congress representati-

Iron and Manganese Ore in Brazil

United States Consul-General George E. Anderson, of Rio de Janeiro, reports as follows concerning the iron- and manganese-ore deposits of Brazil:

IRON-ORE DEPOSITS

The Brazilian government has just transmitted a report, for the use of the authorities having in charge the preliminary preparations for the International Geological Congress, which meets next year in Stockholm, covering certain iron-ore deposits in the Republic, the result of a survey sent out for the purpose, with a special expert at its head; and although the text of this report is withheld, pending the use to be made thereof by the authorities for whom it was prepared, an outline of it has been secured by this office.

The examination of the deposits in

ves of the important iron/steel syndicates in the industrialized countries, notably the US, Britain, France, Germany and Belgium, travelled to Brazil in order to acquire options on ore deposits.

The most favored locality in the state of Minas Gerais was the Rio Doce Valley. Both the American and English groups concentrated their efforts on this region for three reasons. First, the monograph submitted at the Congress underscored the richness of the Itabira do Mato-Dentro region, an estimated 528 million ton of ores. Secondly, that vast amount of iron ore was located in a reduced space having advantageous mining characteristics. Thirdly, Itabira could be made the terminal station of an existing railroad, Estrada de Ferro Vitória-Minas,

connecting the coast and the interior through a break in the mountain ridge (see map on page 16).

The English group was originally composed of Baring Brothers, Cecil

Through the US Consul-General in Rio de Janeiro the mining industry was informed of the rich iron ore fields in Brazil well before the 1910 International Geological Conference in Stockholm. Article from Mining and Engineering Journal of July 10, 1909.

Rhodes, Ernest Cassel (owner of the larger part of Swedish iron ore deposits), and O. Rothschild. This group subsequently organized the Itabira Iron Ore Company Ltd., transferring to it the options to buy the ore deposits.²

The following table shows the mines acquired by the different groups and the selling price. It has been estimated that one million tons of ore was bought at extremely low prices, on the average for a thousand mil reis. Thus a ton of iron ore was bought for one real, a monetary unit so small that it soon disappeared. One source indicates that Itabira Iron Ore Co acquired its richest deposit plus large areas of land around it for about 25 000 dollars!³

The following articles on CVRD and the Carajás project clearly demonstrate how this early penetration by foreign capital was just the first phase in a long struggle for the control of Brazil's rich mineral resources.

Notes:

¹ Quoted from "The iron ores of Brazil" by Orville A Derby, in *Iron Ore Resources of the World*, Stockholm 1910.

² *Revista Brasileira de Economia*, Oct/Dec 1970, p 1-2.

³ "Om järnmalmerna i Minas Gerais", H Carlborg, *Jernkontorets Annaler*, Stockholm 1915.

Price of acquisition of Brazil's Iron Ore deposits

Deposits	Buyer	Price (1000 mil réis)
American group		
1. Alegria e Cota	Brazilian Steel Co.	150
2. Morro Agudo	The Brazilian Iron and Steel	80
3. Cauê & Sant'Ana	The Brazilian Iron and Steel	300
English group		
1. Conceição e Esmeril	Itabira Iron Ore Ltd.	400
German group		
1. Córrego do Meio	Phel Hartenback (representing a German syndicate)	450
2. Córrego do Feijão	Deutsch Luxemburgische-Bergwerks AG	100
French group		
1. Candonga	Société Franco Brésilienne and Bernard Goudechaux & Cia.	200
2. Serra do Mascate	Brachy Fall Co.	70
3. Jangada	Soc. Civile des Mines de Fer de Jangada	10
4. Nhotin	Brachy Fall Co. (French-Belgian)	100
Belgian group		
1. Gaia	Companhia Siderúrgica Belgo Mineira (Acieries Reunies de Beuback- Eich-Deudelange S.A.)	n.a.