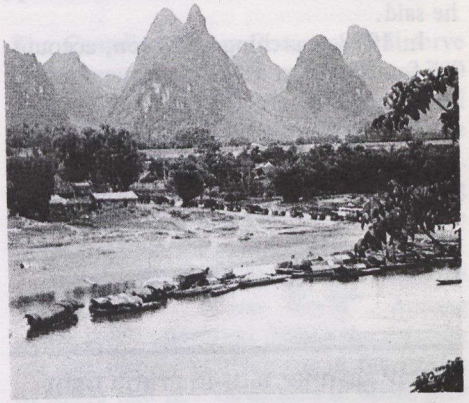
country previously or been available to Canadians for research. The immediate value of the visit to Canada was in the initial steps made towards scientific exchange, technology transfer, and commerce in the resource industry, and to evaluate China's industrial and trade capabilities. Canadian industrialists are now following with engineering services, equipment sales, and consultation.

On arrival in Peking the Canadian party was given a general briefing on the different kinds of iron resources found in China and the geological factors that control their distribution.... The Canadian Mission gave lectures and seminar sessions at the Academy of Geology of the National General Bureau of Geology in Peking and for each of the mining groups visited in other parts of the country. Exploration, mining and ore processing methods used in Canada were described and the geology of deposits comparable to those being mined in China was discussed in detail.

The Metals Society of China in Peking is composed of representatives from all engineering and scientific disciplines related to the mineral industry and provides high level policy recommendations to the Government. They discussed their development problems and iron ore requirements and enquired about Canadian methods of sampling, drilling and ore testing in proving iron ore reserves, where such work was carried out and who performed it. They asked if Canadians considered geological conditions in China favourable for natural high grade iron ore and how it might be found, pointing out that other countries, India and the Soviet Union, adjacent to China, possess such ore while relatively little has been found in China. Members expressed a keen interest in participation of Canadian geologists and engineers in the exploration, development and rebuilding stages of their iron ore industry.



Ferry crossing near Kweilin, with striking topography of Kwangsi Province beyond.

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Highly metamorphosed sedimentary iron-formations comparable to iron deposits in northern Ontario and the Wabush Lake area of Labrador are distributed in a broad belt of Precambrian rocks that extends across Inner Mongolia and northeast China. The group visited another deposit near Peking which is smaller but similar in type to those mined in Anshan....

Iron deposits visited at Tayeh in Hupeh province supply magnetite ore concentrate to the steel plants at Wuhan on the Yangtze River. These iron deposits are geologically similar to many that occur in southeastern Ontario and Quebec and along the west coast of Canada and are typical of deposits distributed throughout the eastern and southern part of China....

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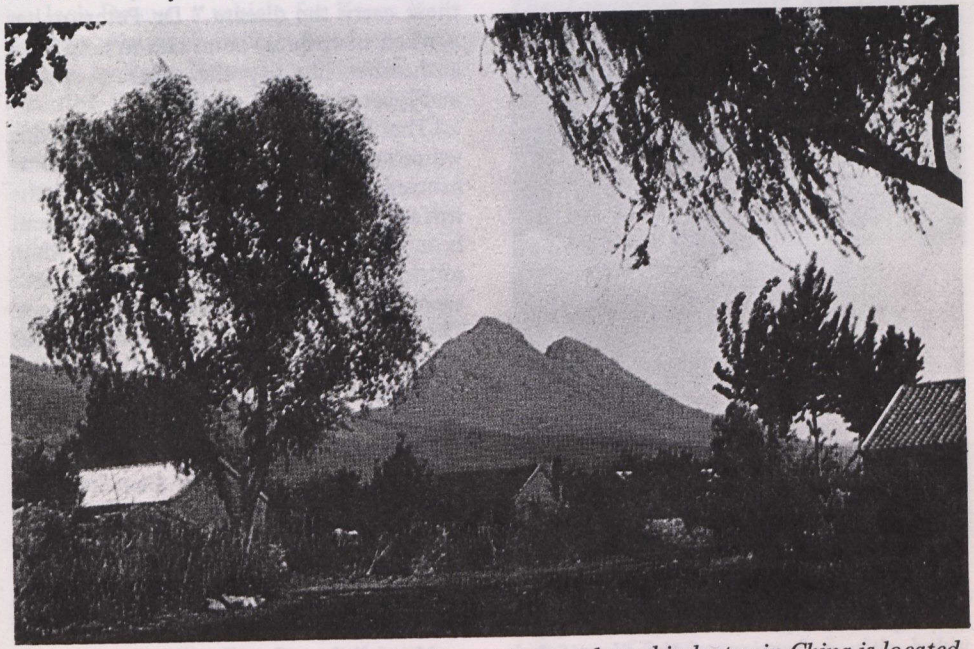
Important new discoveries of iron ore have been reported in central and western China as a result of intensive exploration efforts in recent years. Geological conditions are considered favourable for the discovery of new sources of iron ore, particularly in the less developed parts of the country. By revising geological notions, guidelines and approaches in exploration, the Chinese hope to establish an indigenous supply of raw materials for future industrial expansion.



Part of Anshan iron ridge, where the largest iron and steel industry in China is located. An agricultural village is in the foreground.

Producing more nuclear energy and less waste

A Canadian nuclear engineer has been working to turn radioactive nuclear waste into valuable nuclear fuel.

Dr. Archibald Harms, an engineering professor at McMaster University in Hamilton, says nuclear fuel rejuvenation could not only make nuclear fuel up to 50 times more valuable, because 50 times as much energy might be produced from a gram of nuclear fuel, but could also assist in resolving the nuclear waste disposal problem.

Nuclear fuel rejuvenation or nuclear transmutation, would employ a large nuclear accelerator which would fire protons or charged particles of a particular energy at bundles of spent nuclear reactor fuel which have already been partly "used-up". Dr. Harms, who has worked as a consultant to the United Nations International Atomic Energy Agency, says usually less than about 1 per cent of a bundle's potential is used for fuel because of the build-up of a "crust" which prevents access to the remaining 99 per cent. If this crust were dissipated by the proton bombardment, the bundle could be returned to fuel the nuclear reactor. When the crust again ac-