

ECONOMIC GEOGRAPHY

Farms, Forests, Mines, Ports, Are Prizes in Eastern Strife

Three-Cornered Tug of War Between China, Japan and Russia Ruled by Economics Rather Than Politics

Following is the first of a series of four articles on the tangled and vexed situation in Manchuria and Mongolia, as seen by leading geographers.

CHINESE and Japanese soldiers skirmishing in Manchuria are shadows. The realities of the Far Eastern situation are the soy bean farms, the forests of valuable timber, the railways, warm-water ports, and mines within the coveted territories.

This is the way the contest between China, Japan, and Russia looks to a geographer, Dr. Isaiah Bowman, director of the American Geographical Society.

"Standing beside the open pits of the iron mines at Mukden, (Manchuria), and observing those efficiently run enterprises, it takes no imagination to see what Japan is driving at and struggling to get," said Dr. Bowman to a representative of Science Service. "The iron from Manchuria, and the coal, reflect the two great industrial deficiencies of Japan, two elements of power that come to high development in Manchuria.

"It is more dramatic to read about people than coal. But barons and generals come and go. Coal and farms and seaports remain. They are the significant and the more or less permanent features of any great territorial problem."

A Geographer's War Map

If a geographer were to make a war map of the Far East, he would have it dotted over with red and yellow and blue pins, like any strategic map. The pins would mark, not soldiers and guns, but the rich mines, farms, pastures, and other "realities" of the contest, and the war map would show which contestant had gained control over the geographic prizes.

The geographer's war map, as the Far Eastern situation is developing, would not be limited to Manchuria where Japan and China clash. The area involved would take in Mongolia to the west of Manchuria and the Far Eastern area of Russia which spreads to the north of Manchuria.

Mongolia, with its enormous desert, might not be taken for an international prize package, at first glance. But as the geographer points out, far-inland Mongolia has patches of good farm land, and more can be made by irrigation. More valuable, perhaps, are the pasture lands, forests, mines, and fisheries of the region. Moreover, Mongolia is important as a thoroughfare traversed by the caravans that ply between Russia to the north and China to the south.

Russia has long kept an interested eye on the possibilities in her nextdoor neighbor Mongolia. In 1915, Russia gained a privileged position in Outer, northern, Mongolia. The negotiations gave Russians special rights of pasturage, and allowed Russians to work the mines and timber lands.

The Uncontrollable Frontier

This arrangement lasted only four years. Then Outer Mongolia met with a government upheaval.

In Dr. Bowman newest book, "The Pioneer Fringe," he predicts that new questions respecting Mongolia will arise out of present difficulties between Russia and China. Neither power, he explains, has the strength to control in any stable manner the enormous distances of the common frontier.

Dr. Bowman does not foresee fighting in Mongolia, however.

"The fight," he says, "will take place in, and the settlement be guided by, the Manchurian not the Mongolian realm."

Russia is not the only power to appreciate Mongolia's potential value. Political writers have predicted that Japan's foothold on the Asiatic continent, first gained in Korea, then Manchuria, will next carry Japan on to Mongolia and possibly into the Russian Far East.

The part of Siberia which Russia calls her Far Eastern Area is an irregularly shaped, thick fringe along the Pacific in the northeast corner of Asia. Comparatively little of the land is attractive for farming colonists. The best farm lands are in the southern part, along

the Amur River, where wheat and oats are produced. Part of this land lies within the rich black-earth belt which stretches across Russia.

But besides farm lands, the Far Eastern Area has forests of ash, maple, elm, and other valuable trees. Japan buys wood from these Siberian forests. There are also mines, comparatively untapped, containing treasure of gold and silver. Even more alluring to Japanese industry are the mines of coal, iron, lead, tungsten, and feldspar.

Fisheries are another resource of the area. Japanese, by concessions from the Soviet government, are leading figures in the Siberian fisheries industry. Japanese in Kamchatka, for example, supply the world with the bulk of its canned crab meat. The whole fisheries catch of the Far Eastern Area piles up to a weight of 400,000 tons in a year.

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METEOROLOGY

Snow Blanket Keeps Soil From Freezing Deeply

JUST how effective a snow blanket is in keeping the ground warm has been strikingly shown by an investigation of weather conditions on the Michigan peninsula.

Dr. W. J. Humphreys, physicist of the U. S. Weather Bureau, states that when the soil in northern Michigan freezes to a depth of three or four inches, the ground in the southern part of the state freezes to a depth of three or four feet. An earlier and thicker snow blanket is found to explain this difference.

The snowfall on the northern part of the peninsula is much heavier than it is to the south, Dr. Humphreys says. By the time freezing weather sets in, the ground in the north has an insulating cover of snow which retards the escape of soil heat. This cover remains effective until spring, when temperatures are too high for either snowfall or freezing.

Farther south, according to Dr. Humphreys, conditions are different. Snowfall is relatively light, affording the ground little protection against the cold. Sometimes the soil has frozen deeply before the snow appears.

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The U. S. Army Air Corps describes an experimental aircraft, provided with paddles which can be used as oars, and capable of floating with six or seven passengers.