

Prophet of Destruction

BIOGRAPHY OF PERCIVAL LOWELL.

By A. Lawrence Lowell. New York: The Macmillan Co. 1935. \$3.

Reviewed by HARLOW SHAPLEY

PERCIVAL LOWELL had a dramatic imagination. To him the birth, evolution, and death of a world was a pretty spectacle for the fortunate gods; it was a show with some really stirring passages. He visualized four ways in which a planet could be cured completely of living phenomena. These remedies are: collision with a star, tidal action that eliminates the earth's rotation and therefore spoils our biologically necessary day and night, the loss of water and atmosphere, and the gradual dying of the sun. All of these, his biographer reminds us, he cheerfully reports are sure to happen; but for at least three of them the inevitable catastrophe will occur only at a very remote time. The collision with a star, however, although extremely improbable so far as recognized luminous stars are concerned, is not so impossible if space is populated with dead and dark stars that may creep upon us unexpectedly out of cosmic darkness.

The disruption of the planetary system, or even the shattering of the sun itself, by a lightless celestial body seemed to the imaginative Lowell sufficiently probable to justify a dramatic account of the death of the world. Let us quote enough from his picture of our last days to get our own picture of the poet-scientist-adventurer whose life and labors have been recorded frankly and carefully in an exceedingly readable volume by his distinguished brother, the former president of Harvard University.

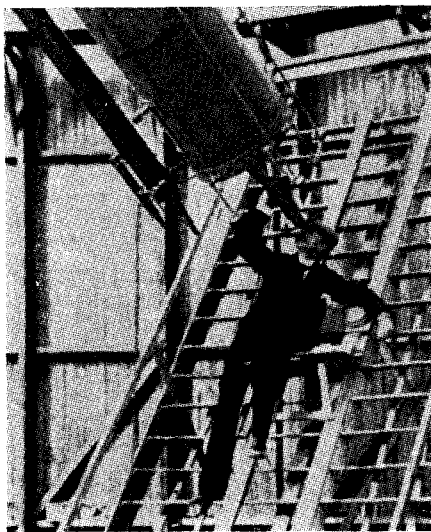
It would be some twenty-seven years from the time [the death star] entered the range of vision of our present telescopes before it rose to that of the unarmed eye. . . . Humanity by this time would have been made acquainted with its sinister intent from astronomic calculation, and would watch its slow gaining in conspicuousness with ever-growing alarm. During the next three years it would have ominously increased to a first magnitude star, and two years and three months more have reached the distance of Jupiter and surpassed by far in lustre Venus at her brightest.

Meanwhile the disturbance occasioned not simply in the outer planets but in our own earth would have become very alarming indeed. The seasons would have been already greatly changed, and the year itself lengthened, and all these changes fraught with danger to everything upon the Earth's face would momentarily grow worse. . . . Day and night alone of our astronomical relations would remain. It would be like going mad and yet remaining conscious of the fact. Instead of following the sun, we should now in whole or part, according to the direction of its approach, obey the stranger. For nineteen more days this frightful chaos would continue; as like some comet

glorified a thousand fold the tramp dropped silently upon the sun. Toward the close of the nineteenth day the catastrophe would occur, and almost in merciful deliverance from the already chaotic cataclysm and the yet greater horror of its contemplation, we should know no more.

A cheerful scientist, this man Percival Lowell!

In one of his books Percival Lowell expressed his belief that the discoveries, methods, progress, and tentative speculations of scientists should not be kept in the staid and dignified seclusion of technical journals. His dramatic popularization of his own work, through books, magazine articles, and lectures, was un-



PERCIVAL LOWELL

At the time when he observed and recorded the canals on Mars.

dertaken neither for personal gain nor for reputation—he had no need of either—but as a service to science and to the intelligent public. And, so far as scientific standing among contemporary professional scientists was concerned, he paid the usual price.

Percival Lowell was a gifted man. Inheritance provided him with the opportunity of being a gentleman of leisure; but his active mind and restless spirit never permitted him the leisure, except during a few years of broken health that resulted from excessive scientific labor. He was a writer of distinct literary skill, an orientalist, a mathematician of ability much above that of the average scientist, an organizer of research, a business man, and a versatile scientist. An eminent botanist says that if death had not interrupted various investigations in Arizona, "there is every reason to believe that as a botanist Percival Lowell would have become famous." But it is as an astronomer that he attained an enduring fame.

America is known for the high distinction and valuable work of its amateur

astronomers. Scores of them are now making useful contributions, mostly under professional guidance. Lowell was the most distinguished amateur that American astronomy has known, for not only did his industry and enthusiasm equal those of the best, but his means to carry out programs were unexcelled.

Several monuments mark his career. The most important is undoubtedly the astronomical observatory he founded and endowed at Flagstaff, Arizona—an institution where members of the staff he chose more than twenty-five years ago have continued to make important contributions to our knowledge of planetary atmospheres, the constitutions of stars, and the mechanism of the universe—discoveries that could not well have been made except in this exceedingly favorable site personally selected by Lowell, or made without the inspiration with which Lowell guided the activity of the new institution up to the day of his death in 1916.

A second monument is the turning point created by him and his colleagues in the methodology of analyzing planetary atmospheres. In spite of the stubborn opposition excited by his over-interpretation of Martian details among his astronomical contemporaries, it is now generally granted that Lowell was a keen observer and that many of his deductions suffered chiefly through being ahead of their time. A third is the ultimate discovery of the ninth planet of the solar system. It was decidedly in keeping with the dramatic element in Lowell's way of living and thinking that the discovery of Pluto was announced in 1930 on his birthday, March 13.

The fourth enduring memorial to Percival Lowell came through his good fortune in having his brother for a biographer, for the volume under review is put together with a sympathetic understanding of the man, a competent knowledge of the technical details of astronomical calculation and research, and an appreciation of what is fit to record and interpret of those entertaining Japanese studies and writings of the 1880's. (As would be expected, the volume fails to mention that the very powerful photographic telescope with which Pluto was discovered was the gift of A. Lawrence Lowell to the Flagstaff Observatory—a memorial to his brother and an indication of his faith that the predicted ultra-Nepunian planet, whose symbol now combines the letters P and L, could be and should be discovered from a peak in Arizona.)

Professor Henry Norris Russell, of Princeton, has written two appendices for the "Biography of Percival Lowell," one dealing with the prediction for and discovery of Pluto, the other with the researches carried on at the Lowell Observatory.

Harlow Shapley is professor of astronomy at Harvard University and director of the Harvard College Observatory.

A Communist View of China

CHINA'S MILLIONS. By Anna Louise Strong. New York: Knight Publications, Inc. 1935. \$2.50.

Reviewed by GEORGE E. SOKOLSKY

ANNA LOUISE STRONG went to China to discover another Russian Revolution. That she did not find. Instead, she was enabled, by her experiences, to write, with deep penetration, of a tour through several provinces of the country and across Mongolia.

When Miss Strong writes of the Chinese people, when she describes cities and individuals, when she speaks of political leaders, she gives evidence of insight and grasp such as one hardly expects in a person who spent so little time in China. Her analysis and characterization of Feng Yu-hsiang is so correct and complete that even one who had known the Christian general all his life, could not have painted a fuller portrait.

But when Miss Strong discusses Chinese politics, she suffers from a naiveté and credulousness, characteristic of communists, whether Russian or American. Communists have a formula; whatever does not fit is ipso facto wrong. Thus, although she was in the very center of the struggle between Chiang Kai-shek and Borodin, she fails altogether to grasp that the essential element of weakness in Borodin's position was that he was a foreigner, that his activities led Chinese to assume that he was trying to govern them, and that he was more concerned with the interests of his country than with the welfare of China. Borodin's expulsion from China, of which Miss Strong's book is a diary, was as necessary to China as it was inevitable.

Nowhere in the book is Miss Strong even remotely unprejudiced and fair to Chiang Kai-shek. He killed the Communist Revolution; he drove Borodin out of China; he sent his armies to fight Chinese communists. Therefore he is a traitor and a tool of the imperialists.

Here is an inevitable communist *non sequitur*. Chiang Kai-shek did all the things that Miss Strong says he did, but he is no traitor to China. Rather is he

serving China according to his own point of view which is accepted by millions of Chinese as correct. He is seeking to develop in China a national state, independent of all imperialists, including Soviet Russian imperialism. That task is undoubtedly complicated by the necessity of fighting remnants of Chinese communism, which Chiang Kai-shek, along with millions of other Chinese, regards only as the particular weapon of Russian imperialism. It is a pity that Miss Strong is so lacking in historical objectivity that she cannot understand Chiang Kai-shek's activities and appraise his motives justly.

Again, Miss Strong has not always been treated fairly by her Russian informants. For instance, although for some time previous to Borodin's expulsion there had been negotiations between Nanking and Wuhan on the subject, the immediate act was the disclosure of instructions which Borodin had received from Moscow by the Indian communist, Roy. Miss Strong misunderstands this situation and was apparently misinformed about it. Actually, the situation was that those at Wuhan, Sun Fo, Wang Chin-wei, and other so-called Left Wingers of the Kuomintang, were anxious to abolish the Chiang government and to unite with Nanking.

But Borodin was on their hands and they knew not how to get rid of him politely. Chiang would have no dealings with them as long as Borodin was in China. In the meantime, the situation had changed in Russia and Borodin's influence was no longer so potent in the Russian capital. This was known in Nanking and probably in Wuhan. Therefore when Roy disclosed to Wang Chin-wei and Sun Fo, Borodin's new instructions, which were definitely to intensify the communist struggle, they took advantage of the situation.

An incident in this connection may perhaps make it clear how Miss Strong and other American associates of Russian communists are not always taken into the confidence of the Soviet leaders. She says: "Only years later, from the memoirs of Sun Fo and Tang Leang Li, did I learn the details . . ." (of this event).



Ossip Garber

ANNA LOUISE STRONG

I was then the political correspondent of the *North China Daily News*, a British paper in Shanghai. Although we were very antagonistic to the Wuhan government, a very few hours after Roy showed the instructions to the Chinese, I had them in Shanghai and we published them, after verification. Obviously, if those at Wuhan had not planned to rid China of Borodin, this news would not have been made available to me.

Miss Strong deals rather fully with the White Terror in Hunan. In retrospect, she discusses somewhat the Red Terror. Of course, that is her right, for she is telling only what she saw, heard, and experienced. Nevertheless, it is the Red Terror in Hunan that made her trip across Mongolia possible, for it spread horror over China. After the Red Terror in Hunan, communism became abhorrent to the Chinese people.

Chapter IV, "Through the Mountains of Shensi," is a brilliant description of the pre-capitalistic culture of the Chinese of the interior. No description of Chinese peasant life equals it, not even Pearl Buck's novels. Here Miss Strong gives evidence of a deep intuitive sense, of a full appreciation of the character of what must have been to her a strange people. Just before that she had met a Chinese general in Sianfu who said to her:

Our first task, is to carry out the will of Dr. Sun in which the first step is the People's revolution. It is not yet time for the World revolution. We must first awaken the Chinese people to secure their rights.

To her these sentences were ambiguous. Yet, that is what the Chinese really believed then and believe even more now. And that is what puzzles me so much about Anna Louise Strong. When she is descriptive, she is so understanding; when she is polemical, she is utterly at a loss to see the other point of view.

For me, the constant intrusion of communist propaganda spoils one of the best books on China written in many years.



A COMMUNIST CHINESE STUDENT SPEAKS: From "Eyes on the World" (Simon & Schuster). The skull and bones symbolize the speaker's willingness to die for his country.