

PEARL BUCK AND THE NATIONAL LAND SURVEY OF 1933

by Robert Temple

Pearl S. Buck won the Nobel Prize for Literature in 1938 because of her writings about China: *East Wind, West Wind* (1930); her most famous novel about Chinese peasants, *The Good Earth* (1931), with its two sequel novels, *Sons* (1932) and *A House Divided* (1935); a novel about a Chinese peasant woman who survives tremendous personal suffering, *The Mother* (1934); two biographical books about her parents' lives in China: *The Exile* (1936, the story of her mother) and *Fighting Angel: Portrait of a Soul* (1936, the story of her father); and her monumental translation of the Chinese novel *Shui Hu Zhuan* to which she gave the English title *All Men Are Brothers* (1933). Her Nobel Speech was typically devoted to the subject of "The Chinese Novel". But what has not previously been realised is that Pearl Buck's writings about China extended also into a different sphere entirely, - the sphere of Chinese agriculture, land, and society.

In 1917 Pearl Sydenstricker [*pronounced 'Sigh-den-stricker' with the accent on the first syllable, hence her Chinese surname was Sai, which has the identical sound*] married John Lossing Buck, an American agriculturalist who had come to China with the misguided notion of teaching American agricultural techniques to the Chinese. He became Professor of Agricultural Economics at the University of Nanjing and he repeatedly told his wife how frustrated he was that he could not succeed in teaching the Chinese how to farm "properly". She told him that instead of trying to impose his ideas upon the Chinese farmers, - to which they were naturally offering resistance, - he should first try and learn more about their existing native Chinese methods of farming. She criticised her husband and told him that he did not know enough about China or Chinese farming. She urged him to make a thorough study of what the Chinese were already doing, and only then could he be justified in suggesting changes. She records what happened in her autobiography, *My Several Worlds* (1954):

"It seemed obvious to me that one could not teach what one did not know, and I suggested ... the wisest plan would be to discover first the facts about Chinese farming and rural life. No questionnaires had ever been used on the subject of Chinese farm economy ... I, who had grown up among the Chinese farms and country people, realized how much there was to learn and how remote our young Chinese intellectuals were from their rural life. The sons of farmers did not come to universities, and the students were at best only the sons of landowners. Actually they were nearly all the sons of rich merchants or

college professors or scholars. They not only knew nothing about their own country people, they did not even know how to talk to them or address them. My blood used to boil when a callow young intellectual would address a dignified old peasant with the equivalent of ‘Hey, you ---’ The contempt of the intellectual for the man who worked with his hands was far stronger in our young Chinese intellectuals and radicals than it had been in the days of their fathers. I felt a passionate desire to show them that peasants were worthy of respect, that peasants were not ignorant even though they could not read and write, for in their knowledge of life and in their wisdom and philosophy they excelled at least the modern intellectual and doubtless many of the old scholars as well.

“This desire moved me to help as much as I could with the project which gradually shaped itself. Chinese students were given questionnaires on rural life, which they took to Chinese farmers, and when the replies came in, the material was assembled and organized and its findings put down in a small book on Chinese farm economy. When this book was published by the University of Chicago, it drew the attention of the Institute of Pacific Relations and was the beginning of a wider and more significant study of Chinese rural life.”¹

The initial volume to which she refers was entitled *Chinese Farm Economy*, finished long before its eventual publication in 1930.²

Whether inspired by the project at Nanjing or whether because he thought of it himself, no one now knows, but Dr. O. E. Baker of the United States Department of Agriculture then suggested in 1927 that a study of land utilization in China should be undertaken. Pearl Buck urged her husband to undertake such a study himself and thus extend the work which they had already started together into a more comprehensive survey. Pearl Buck’s brother, Edgar Sydenstricker, contributed what was then the very large sum of \$3000.00 towards the project, and her father, Absalom Sydenstricker, agreed to write the section on Population (in fact he died before he could complete this task). So John Buck then undertook the organisation of what was to become the most important, thorough, and wide-ranging survey of Chinese land use ever attempted up until that time. The results were published in 1937 in a book of 494 pages entitled *Land Utilization in China*.³ A Chinese translation of this epic work was published simultaneously, because of its obvious value to Chinese agriculturalists. The English language version was reprinted in 1956.

The formal organisation of this vast research project commenced in the winter of 1928, two years before John Buck’s *Chinese Farm Economy* was

¹ Buck, Pearl S. *My Several Worlds: A Personal Record*, Methuen, London, 1955, pp. 214-5.

² Buck, John Lossing. *Chinese Farm Economy*, University of Chicago Press, USA, 1930.

³ Buck, John Lossing. *Land Utilization in China*, A Report in the International Research Series of the Institute of Pacific Relations, University of Nanking Press, Nanking, China, 1937.

published (1930), when Dr. J. B. Condliffe, Research Secretary of the Institute of Pacific Relations, visited the Bucks in Nanjing and was personally impressed with the work that was already taking place there. Five years' worth of grants were then obtained from the Rockefeller Foundation in America to support the huge endeavour. Field work commenced in June, 1929, and was completed in 1933. The compilations of statistics were finalized by March, 1934, since that is the date at which the statisticians ceased to work on the project. The regional investigators were all Chinese.

The project carried out a study of no less than 16,786 farms in 168 localities, and of 38,256 farm families in 22 Chinese provinces. Sinkiang [*Xinjiang*] and the three north-eastern provinces were omitted from the study, but the rest of China was covered.

Before turning to an examination of this phenomenal and immense study, a few more observations need to be made about Pearl S. Buck. She wrote parts of *Land Utilization in China*, notably Chapter One, "Chinese Agriculture", although it appears under the name of her husband. But her name only appears once in the entire volume, despite the fact that she conceived the idea and wrote part of it; that appearance is in a footnote to Chapter One citing *The Good Earth*. By the time *Land Utilization in China* was eventually published in 1937, Pearl Buck had been forced to leave China because of the turmoil there (she had already narrowly escaped being killed earlier at Nanjing). Her marriage to John Buck had been extremely unhappy for many years, and by 1937 the couple had been divorced for some time. John Buck was deeply embittered by the divorce, and he suppressed his wife's involvement with the project by refusing to name her as a contributor, taking her name out of the book in a personally spiteful manner. Without a knowledge of the personal background, it is impossible for anyone to understand either the origins of *Land Utilization in China* or the suppression of Pearl Buck's involvement with it. Of course, John Buck did not behave like a gentleman, and Pearl Buck's later hatred of him was so intense that she refused even to mention his name in her autobiography *My Several Worlds*. He had suppressed her name, so she retaliated by suppressing his! She merely called him "the man in the house", refusing even to describe him as a former husband!

I first met Pearl Buck early in February, 1962, a few days after my seventeenth birthday. I lost touch with her in 1966 when I left America to settle in England. Although we didn't know it when we met, I later discovered that our families had been friendly nearly two hundred years earlier, since we were both direct descendants of personal aides to George Washington, and our ancestors had spent several years living and working together and had in common the fact that they could chatter to one another in German, which most Americans then could not. It was Pearl Buck who was responsible for convincing me that I should become involved with China. I caught the "virus"

from her for which there is no cure, - an uncontrollable love of China. She also convinced me that one of the most important tasks a person could undertake would be to facilitate contact and understanding between China and the West. And most important of all for the subject under discussion here, I came to realize directly from Pearl Buck how deep her passionate love of Chinese peasants really was. I was in sympathy with this because I grew up in a rural area myself, and I knew many excellent people who resembled the Chinese peasants so much loved by Pearl Buck. She and I both understood this kind of people, and have respect for them, which urban people cannot ever do because they cannot comprehend them.

Most people do not realize that Pearl Buck's first language was Chinese, not English. Although she had been born in America, she went to China as a tiny baby and spent her entire youth there. But she wasn't living in Shanghai or any kind of cosmopolitan place like that. She was living with the peasants, wandering barefoot round the countryside, and getting to know what she considered *the real China and the real Chinese*. When she was very young, her existence in the Chinese countryside was idyllic, and there was no consciousness of her being a *yang gui zi*. She was only called that by strangers later, when political troubles with the West arose. But the central psychological fact is that Pearl Buck thought of herself as a Chinese when she was a child. Therefore her love for the Chinese countryside was intensely passionate in a way which is otherwise impossible to comprehend. It was this intense passion which lay behind the initiation of the project which resulted in *Land Utilization in China*. Without Pearl Buck's personal and psychological background, this great survey would never have taken place, John Buck would have gone on fruitlessly trying to impose Western farming techniques on Chinese farmers, and no study would ever have been done. Pearl Buck's personal views impinged on the study in other ways as well. She was passionately opposed to Chiang Kai-Shek and his Kuomintang Government. She believed that they were ruining China through incompetence, arrogance, and stupidity. Some of the harshest criticisms in *Land Utilization in China* are of the Kuomintang rural tax system, describing its devastating impact on Pearl Buck's beloved peasants. She seems to have written part of the chapter on "Marketing" (it appears under the name of her husband), and we can clearly recognise her sentiments in these comments:

"The high transportation costs and the tax levy on agricultural produce in transit are important factors in making it difficult for China to compete with foreign countries exporting agricultural products to China. ... The development of a better land utilization is dependent on the efficiency with which the marketing process can take place. The more important elements in attaining such improvement are adequate transportation facilities, control of

transportation rates at a reasonable rate and the exemption of goods from taxation in transit.”⁴

From these comments it may be seen that *Land Utilization in China* was not just a collection of data, but it presented many relevant suggestions on how to deal with problems which had been uncovered in the course of the investigations. The book is filled with alarming calls for the control of population growth, which have now been proved to be totally justified. In the collection of population data, 46,601 families were personally investigated, far exceeding the 38,256 farm families contacted for the rural information. All of the population data was collected between 1929 and 1931. The study points out that whereas official data of the period stated that 75% of the population were rural, the true figure was found to be about 85%.⁵ This same figure is repeated by Pearl Buck in her autobiography:

“At this period of my life and of China’s history I was keenly aware of the Chinese peasant, his wonderful strength and goodness, his amusing and often alarming shrewdness and wisdom, his cynicism and his simplicity, his direct approach to life which is the habit of a deep and natural sophistication. It seemed to me that the Chinese peasant, who comprised eighty-five percent of China’s population, was so superior a human group, that it was a loss to humanity that he was also voiceless because he was illiterate. And it was this group, so charming, so virile, so genuinely civilized in spite of illiteracy and certain primitive conditions of life that might very well be merely the result of enforced mental isolation from the currents of modern thinking and discovery, whom the young [Chinese] moderns, rootless and ruthless, proposed to ‘educate’.”⁶

Pearl Buck and her father had supervised the gathering of all of these statistics, for the data were essentially collected by the time of her father’s death in 1931 (the writeup of the findings was done by Frank Notestein in collaboration with Chiao Chi-Ming, the Director of the Population and Vital Statistics Survey under Pearl Buck’s father). It is noteworthy that the statistical information on Chinese population which she had helped to collect formed part of the later writings and many public speeches which Pearl Buck wrote and delivered during the remainder of her life in America, thus entering into the standard view of Chinese problems presented to the West before, during, and after the World War. Naturally, this popular presentation of the statistics was far more widely disseminated than the book *Land Utilization in China*, which was only consulted by specialists.

The findings of the Population section of the project turned up many fascinating details. The population of southern China was found to be far

⁴ *Ibid.*, pp. 355, 357.

⁵ *Ibid.*, p. 363.

⁶ Buck, Pearl S. *Op. cit.*, pp. 292-3.

younger than that of northern China. The survey found a ratio of 108 males to 100 females, exceeding even that of India (106 to 100), and higher than any other country.⁷ Family sizes ranged from 3.96 persons on small farms to 7.31 persons on large farms.⁸ The survey seems to have provided the first reliable information about Chinese population ever gathered. The report points out that “Various estimates of China’s population differ by as much as 250 million people ...”,⁹ which is an almost unimaginable margin of error. The survey on the other hand concludes that in 1931 the *farm* population of China for the areas excluding the three north-eastern provinces and the other regions not covered by the survey was between 400 million and 600 million.¹⁰

Population densities for the different regions are given in great detail, varying in the different regions between 858 and 2,636 people per square mile.¹¹ Farming patterns varied drastically: “Only five per cent of the northern families were classified as tenants, contrasted with 32 per cent in the South.”¹² One highly significant finding of the survey was that the level of population growth found was such that “this rate of natural increase ... would double the population in less than 65 years”.¹³

It is now precisely 65 years since 1931 when these statistics were discovered. [*Note: I wrote this article in 1996.*] So what is the result? It looks as if the population findings and prognoses of the survey have been amply confirmed. The population of China which is now in excess of 1.2 billion people is indeed roughly double the population estimated in the survey. This is a remarkable confirmation, and goes far to show how high the quality and standards of the survey really were. We may take this to indicate that a very close and detailed study of *Land Utilization in China* should be given a high priority by modern Chinese planners. If it was correct about population growth, it was probably correct about other things as well.

Let us turn now to some other aspects of the survey. It divided the surveyed extent of China into two agricultural regions - the well-known Wheat Region of the north and the Rice Region of the south – and into eight sub-regions. Details were extraordinary; for instance, precipitation “decreases from the southeast to the northwest and varies from 85 to only 13 inches, or even less, if one includes the desert portions which are outside the scope of this study.”¹⁴ Using 1931 prices, it is observed that “The methods of transportation used make it possible to carry goods from 40 to 300 miles at costs of 1.62 Yuan

⁷ Buck, John. *Land Utilization, op. cit.*, p. 375.

⁸ *Ibid.*, p. 371.

⁹ *Ibid.*, p. 361.

¹⁰ *Ibid.*, p. 363.

¹¹ *Ibid.*, p. 365.

¹² *Ibid.*, p. 369.

¹³ *Ibid.*, p. 395.

¹⁴ *Ibid.*, p. 2.

by carrying a pole over the shoulder, and 0.39 Yuan by junk.”¹⁵ And as regards cultivated land: “Within an approximate total gross area of some 1,400,000 square miles, in agricultural China, exclusive of the three north-eastern provinces, 340,000 square miles, or approximately one-fourth is cultivated. This amount compares favorably with other countries with percentages of land area cultivated varying from 12 to 45 percent. The other three-fourths of the gross area not cultivated has a little over one-half in some kind of productive use - chiefly in trees, grass and reeds for fuel - but over one-fifth is in forest and 12 per cent in pasture. The arable portion of this uncultivated land is estimated to be over one-tenth ... Of all land, 27 per cent is utilized for crops, 4.6 per cent for pasture, 8.7 per cent for forest, and the remaining 59.7 per cent is for other purposes or is valueless.

“Land in farms (farm area) is used to approximately 90 per cent in crops ... and three-tenths of one per cent in ponds producing water crops or fish. ... pasture in China constitutes only 1.1 per cent of the farm area, as compared with 47 per cent of the area in the United States. Herein is the great contrast between Chinese and American or Western agriculture. ... It is the use of vegetarian products that has made possible a density of 1,500 farm population per square mile of cultivated land.”¹⁶

Remarkable facts about pre-Revolutionary land ownership are revealed: “Land in China is almost entirely privately owned, there being only seven per cent held by the State. This privately owned land is mostly in the hands of individuals, but a small portion, less than one per cent, is owned by temples and family clans and leased to tenants. Somewhat less than three-fourths of the privately-owned farm land is owned by the farmer himself, and over one-fourth is rented.”¹⁷ Such data is enough to keep sociologists and political analysts and theoreticians busy for a long time.

The survey sounds warnings against soil erosion: “Much of the soil erosion found in China is essentially a form of modification by man with the help of nature. Man has cut the forests or broken up grasslands and has neglected to protect the soil thus exposed from being slowly or even rapidly washed away. Consequently, vast quantities of top soil have been wasted by sheet erosion and even still larger quantities by gully erosion. One needs only to observe the sea of gullies in the loessial highlands of the northwest and the heavily laden muddy waters of these rivers extending far out into the sea, or to realize the rate with which the Yangtze River is building up the coast of the province of Kiangsu [*Jiangsu*], to realize that the upland soils of China are being rapidly destroyed.”¹⁸ Unfortunately, 65 years later [1996], the situation is not much improved, despite intensive afforestation efforts [*it was for a long time*

¹⁵ *Ibid.*, p. 5.

¹⁶ *Ibid.*, pp. 5-6.

¹⁷ *Ibid.*, p. 9.

¹⁸ *Ibid.*, p. 8.

not realised that the planting of conifers often increases, rather than decreases, soil erosion, for instance], and 65 years of soil erosion has taken place in the meantime. Historical perspective on erosion and environmental problems such as can be gained from a study of *Land Utilization in China* is invaluable for those who are energetically attempting to tackle those problems today.

One great advantage of the survey is that it provides indices against which specific progress over the past 65 years can be measured. [*This is equally true now in 2009, after 78 years.*] For instance, there is a great deal of trouble in modern China with cotton pests, and in 1931 cerotosis of cotton was a very serious problem. But the main agricultural pest problem in 1931 was the rice borer.¹⁹ What is the current status of agricultural pests and their relative importance as compared to 1931? Comparative studies of such matters might yield interesting findings. The same applies to irrigation. In 1931 only 18% of the Wheat Region was irrigated, as compared to 62% of the Rice Region.²⁰ What is the current status?

Analyses of living standards and population densities in the survey sometimes yielded surprising conclusions. One of these is as follows: “The Wheat Region supports a population of 1,128 per square mile, or about two-thirds that of the Rice Region. The birth rate is 37.4 in the Wheat Region compared with 39.0 for the Rice Region, and the death rate is 24.1 in the Wheat Region compared with 30.0 in the Rice Region.

“Although the Wheat Region has a lower density of population than the Rice Region, it also has a lower production and a lower standard of living and may therefore be considered to be more over-populated than the Rice Region. This situation is revealed by a constant migration from the Wheat Region to the Rice Region.”²¹

It is not intuitively obvious that a region with a lower density of population could be correctly described as *more over-populated* than a region of much higher population density! Upon consideration of the factors, however, this is what was concluded. This is a splendid example of the high degree of sophisticated thinking that went into the survey.

The survey also considered such fascinating topics as diet and nutrition. It produced data concerning the calorie intake by region and examined diet variations minutely. One percent of the diet in the Wheat Region and four percent of the diet in the Rice Region consisted of meat or animal products. Calcium intake was regarded as seriously insufficient throughout China, though better in the north. The amount of food energy in calories per adult-male unit per day was 3,295 in the Wheat Region and 3,186 in the Rice Region.

¹⁹ *Ibid.*, p. 42.

²⁰ *Ibid.*, p. 43.

²¹ *Ibid.*, p. 47.

Daily calcium intake in the two regions per adult-male was 0.444 grams and 0.385 grams respectively. Diet changes were regarded as showing some improvement; a decrease in consumption of kaoliang [*sorghum*] and an increase in the consumption of green beans and sweet potatoes was regarded as very promising.²²

Some of the most important information for the sake of historical comparisons relates to crop yields. For instance: “The range in yields is very great. ... wheat varied from five to 67 bushels per acre, rice from 22 to 169 bushels per acre, corn from eight to 82 bushels per acre, and similar variations for the other crops.”²³ But in 1931 it is not only crop yields that are fascinating; it is crop usage. At that time in China’s history “Only 15 per cent of the rice crop is sold as compared with 29 per cent of the wheat crop ...”²⁴ The remainder was eaten by the producers or used as seed. Certainly the fact that only 15% of the rice then produced in China was offered for sale is an astonishing economic statistic, one of the most amazing findings of a survey which is full of such surprises and shocks. The largest proportion of any crop sold was tobacco (76%), closely followed by opium (74%). The lowest proportion was millet, of which only 10% was sold!²⁵

Minute descriptions of housing accommodation, living conditions, and every conceivable aspect of rural life are covered in the survey. I cannot possibly do justice to such a gigantic report in a short survey here. It is always fascinating to learn such facts (now insignificant) as that there were 81 wives for every concubine, and at what amazingly early ages Chinese people then married. Also, the extraordinarily early average age of death at that time is shocking. Since those days, much progress has been made in disease control, and the great killer, cholera, has been brought under control. No longer is China plagued by the horrible prospect, once so widespread, that a person can be perfectly well one day and dead the next day, having died of cholera within 24 hours without warning. (*I caught cholera in China many years ago, and my life was saved by only two hours, so rapid is that terrible disease! In 24 hours, 33 litres of saline solution was pumped into me, in addition to the potassium which is also necessary. Strangely enough, my life was also saved by only two hours on another occasion in China, when I got appendicitis in Jiangsu Province; China is the best place in the world to get appendicitis, because the Chinese doctors have the most experience with it, and my Chinese surgeon had done more than 1000 appendectomies, whereas most Western surgeons have rarely done more than ten.*) Until modern times Chinese people in the countryside had to get used to the fact that their friends could die suddenly in a single day, having shown no previous signs of ill health. Such terrible events are now a thing of the past.

²² *Ibid.*, p. 46.

²³ *Ibid.*, p. 223.

²⁴ *Ibid.*, p. 233.

²⁵ *Ibid.*, p. 235.

It is to be hoped that the remarkable *Land Utilization in China* can be more widely consulted, and its findings studied in Chinese by the officials and workers most concerned with the relevant problems. Perhaps Chinese translations in simplified characters (the original was in traditional characters) can be made of certain sections and extracts, - at least the introductory chapter, - and in making available this comparative data of the past for workers of the present, historians of science can show their usefulness and concern with the problems which always face a country as large and varied, and as populous, as China.