

The chairman then introduced T. C. Chamberlin who gave the following address.

THE CHINESE PROBLEM.

When I replied affirmatively to the Secretary's request that I give some account of my recent studies in the East it was with the thought that my remarks would fall into a much less important place on the program. I should in any case have been embarrassed to select from the many things which ought to fall under observation on such a trip, but I am especially embarrassed in choosing what may be appropriate to a talk following the scholarly address just delivered by the President of the Academy. My trip to the Orient had an educational rather than a scientific purpose, but the educational and the scientific are intimately related, and a study of educational development in the Orient is scarcely less than a scientific study in itself, since in its broader aspects it embraces everything that enters into the welfare of the people.

The education of the Chinese people, to which I shall confine myself, is essentially a problem of transition from an old adjustment to a new adjustment. What we see today are but the early stages of the transition from an adaptation to a past set of conditions to an adaptation to a coming set of conditions. The past evolution of China has been controlled by conditions of isolation; the coming evolution is to be controlled by contact with the rest of the world. The past evolution illustrates the influence of the factor of isolation in evolution, a factor much discussed recently by Jordan and others. The evolution of a civilization is indeed broader than the evolution of a biologic species, for it is at once a physical, a biological

a mental and a moral evolution, but it carries the same philosophic import.

I can only point out a few of the suggestive features of Chinese evolution under her past conditions of isolation; and first among these, the physical setting of the evolution. Until the sea became a highway, the Chinese were measurably shut off from the rest of the world; on the west by lofty mountain ranges, the Thibetan plateau, and the great deserts; on the north measurably by the Mongolian plateau; on the east and southeast by the sea; on the south partially by lofty parallel ridges and deep valleys. The Chinese seem always to have been a stronger people than their neighbors on the south, and the tendency in that quarter has been for the Chinese to flow out rather than suffer incursion. On the north, where the natural barriers were weakest, the great wall of China was added as a supplementary barrier. This implies that isolation was a condition earnestly desired by the Chinese people. They preferred to work out their destiny alone. They therefore at great labor erected the most remarkable of artificial barriers, and yet a barrier whose efficiency was confined rather to protection against marauders, hostile bands, and turbulent neighbors than against well equipped armies. It is significant that the Chinese chose thus to guard themselves by a passive defense rather than go out aggressively to attack and destroy their enemies or take possession of their lands. They thus demonstrated that they long have been what they still are, conspicuously a peaceful people, non-aggressive and non-belligerent by preference. Under such natural and artificial isolation their remarkable development and their former adjustments took place.

The natural features that constituted these barriers of isolation had not only their general effect on the Chinese people, but their influence on such special factors as the climate and the soil, and these in turn gave shape to the Chinese industries and determined many of the conditions of life. The high interior on the one side and the sea on the other formed and still form a working climatic couplet.. In the winter the coldness

of the mountains and plateaus of the interior give density to the air and cause it to flow down the slopes eastward and southward toward the sea. As it descends it becomes absorbent and hence the winters are dry and cool. In the summer, the interior air is heated and, pressed by the cooler air from the sea, becomes ascensive. As the moist air flowing inland from the sea rises, it becomes precipitant, and hence the summers are warm and moist. In north China notably it is the July and August rains that are the foster parents of the crops.

The moisture borne inland by the ascensive summer winds and precipitated on the slopes of the interior, on the barrier mountains, and on the bordering plateaus, bears back from them to the lowlands a constant burden of new soil material, a means of natural fertilization. By this fresh material the alluvial plains are built up and built out seaward, and their fertility is naturally renewed wherever such accessions take place. In the northern tracts there is added an annual film of dust from the deserts. Thus even the deserts make some compensation for their barrenness.

But the extraordinary preservation of the fertility of China is due mainly to the unusual care and intelligence of the Chinese people in the management of their soils and the handling of their plants. The plants they cultivate may almost be said to be treated individually, as animals are by other peoples. Seed is rarely sown broadcast. Even cereals are planted in hills or rows. Fertilizers also are often planted with the seed or applied to the hills tho often also spread broadcast. The fields are carefully prepared and scrupulously tilled. Interestingly enough, plant reciprocities have been discovered, no doubt by pure empiricism and without even now knowing the reasons that lie back of the observed effects. One often sees rows or hills of wheat alternating with beans, mustard alternating with peas, and various other alternations of legumes with cereals and other plants, thus securing the simultaneous cooperation of plants well fitted to one another. We seek the mutual good offices of plants by rotation, but the Chinese go a step further and secure this by inter-planting. The results

obtained astonish one acquainted simply with what is usually seen on Wisconsin or Illinois farms. The cereal crops, even when raised wholly by themselves, reminded me of those grown on the virgin soils of our interior plains in the early days. Fields of grain of great luxuriance were common, and fields of mustard, a crop much raised in central and western China, often overtopped one with plants 8 or 10 feet high. These results no doubt follow from the long and patient trials of the Chinese under the stimulus of their critical dependence upon the fruitfulness of their crops to feed their vast multitudes. It is their solution of the best relations of plant to man and man to plant.

To better adjust themselves to the severe demands of a dense population, the Chinese have resorted to a suggestive biological selection; the choice of the fittest, as they see fitness; the selection of man at the expense of the domestic animals. Plants are obvious necessities, but, especially in the central and southern districts, animals other than man are reduced to a minimum rather than multiplied to serve as convertors or burden-bearers, as is our practice. Biological evolution in China has thus tended toward a bilateral form, man and plants. The animal intermediaries of nature have fallen in some districts almost to a negligible element. Instead of one man and a horse to help him, it is three men.

But the barriers which had isolated China for thousands of years have been broken down, and the question now arises, what will be the nature of the new adjustment, what form will the new evolution take. We may pertinently ask ourselves, have these barriers been broken down because westerners wish to carry to China the benefits of their best civilization, or because westerners wish to exploit the people, and the resources of China. Or, if motives have been mixed, what is their ratio? Must China now adjust herself to a militant world where force dominates, or need she merely become receptive toward the best that civilization offers? Is it the soldier or science that is to creep in through the gaps in her broken barriers? No

doubt the historical answer will be, both the soldier and science. It is clear that two quite diverse phases of western civilization are struggling for dominance in the readjustment now in progress, that of aggression and appropriation by force, and that of benevolence and broad humanity.

It may be idle to preach the relative virtues of these, but the western world may well sit down and compute the respective costs to itself. China has some four hundred million inhabitants. I was skeptical about these large numbers when I went to China and cannot now say I am wholly convinced of their accuracy, but taxes are said to be apportioned to the provinces and other districts subject to levy on the basis of the number of inhabitants recorded. The local temptation is, therefore, toward scant registration rather than an exaggeration of the census, so much so that penalties are imposed to correct this. It is hence cogently urged that the census returns give less rather than more than the real number of the people. At any rate, they are a very numerous people, a people of declared character and of persistent traits. It is therefore a matter of no small moment to foresee what new traits they will take on as they readjust themselves to the new situation. This is none the less important to the rest of the world because the essence of the new adaptation is *adjustment to the rest of the world*. It is the outside world that has broken down the barriers of isolation and forced the issue. The outside world must, therefore, stand by the consequences of its own forceful intrusions, and it does well to consider what those consequences will be—to weigh well its own part, in shaping them, at least from this time on.

The Chinese of the south, acclimated for some thousands of years to sub-tropical conditions, have physical and mental characteristics which I cannot better express in a word—tho inadequate—than to call them feminine—I do not say effeminate—men of small bones, small hands, small physique generally, with a touch of the feminine cast; bright, active and enduring, with some predisposition to restiveness and migration, but on the whole non-aggressive as compared with Europeans.

In the middle and high latitudes, the Chinese are larger, stronger, bigger-boned, more masculine, more individualized, perhaps slower and seemingly duller, but more independent and more aggressive, notably so as they merge into the co-national and kindred peoples who dwell on the Manchurian plains and on the Mongolian plateaus. At Hankow, a metropolis of the south, you many note a policeman—one of the signs of the new order of things—standing on the side of the street and looking apologetic; in Mukden, the policeman stands in the center of the street with the bearing of a soldier, and cart and rickshaw and coach alike pass scrupulously on the appointed side. There was no temptation to test it, but the policeman's bearing suggested that you might easily look down the barrel of a revolver if you insisted on taking the street at your own sweet will. Chinese immigrants to America are almost wholly from the south and center of China, where the ancient tendency to outflow is most marked. There are few immigrants from the more sturdy races of the north, practically none from the open fields of Manchuria and Mongolia, or from the adjacent provinces which are overflowing into these uncrowded tracts.

Now we may well ask ourselves, whether, having thrown down the barriers and forced these peoples to adjust themselves to contact and intercourse with ourselves and the rest of the world, the adjustment shall be on the lines of peace, equity and the truer forms of cooperation, attended by all the higher qualities of which the western world boasts, not the least of which is its scientific spirit and method, or shall it be on the lines of war and aggression in which the west, notably the European west, is past master. In a world, is the readjustment to be a fitting together for peace, or a fitting out for war; a fitting together for mutually profitable intercourse or a fitting out for inequitable trade and the fierce rivalry of grab.

If we continue to elect the latter alternative what may be the issue of a forced education of four hundred million people in the art of war and the spirit of aggression? In traveling from the metropolis of the southern interior toward the capi-

tal, it was our fortune to take a train on which the young son of a high official of the general government also traveled. For the two days we journeyed together, at every important station on the line a company of soldiers paid their military salutations to the representative of the official, and incidentally thus revealed to the foreign student of education what sort of education is in progress in China. I may have misinterpreted, but the military display did not seem so much a matter of obligation, since only the young son of an official was journeying by, as a good chance to drill the soldiers, to create a public impression, and to foster a military spirit among the people. To a civilian the troops seemed well drilled and well equipped with modern weapons. They were uniformed, not in Chinese costume, but in western fashion, in boots, caps and khaki. Traveling later from Peking northeastward into Manchuria, in the complete absence of any special occasion, a squad of soldiers was found drawn up at practically every station, soldiers of good appearance and apparently well armed. These squads at the station seemed to be merely the natural response of the Chinese to the example of "guarding the railroad" set by the Russians and Japanese farther to the east and north in Manchuria, the natural Chinese response to the compulsory education forced upon them by their instructors. In hunting a salubrious site for a possible educational institution outside a populous city in the south, we ran into a sham battle of approved European type. In far west China, when we called to pay our respects to an official, we found a company of soldiers drilling in the court of the yamen. We saw military schools and military drill in the common schools. These are merely incidental evidences of one phase of the education that is going on in China.

Now let us compute a bit. If one person in every hundred—an approved European ratio, I believe—is kept in military service in a population of four hundred millions, with rotation to develop the reserves, and if an eye is kept open to working into the permanent service as much of the blood inherited from the soldiers of Gengis Khan and Kublai Khan as practi-

cable, what will be the *reciprocal effects* on western military requirements and what will be the inevitable financial burden, some touches of which Europe is even now feeling on her own account. We may leave to the Orientals to count their own costs, for if we force them we perhaps do not care, but what will it cost the western peoples to be ever ready to meet the possible aggressions of four million soldiers inspired and drilled to fight for their nation's life, backed by proportionate reserves and supported by well developed resources. What will it cost Europe if the four hundred millions of China are forced to acquire the skill and the spirit of the forty millions of Japan?

I think there is no necessary "yellow peril" now, but if a "yellow peril" is foreshadowed, of whose creation is it to be? If China is to enter the lists of aggressive military powers, is it of her own free choice, or is it under compulsion? If under compulsion, whose compulsion? If the result be expensive, who ought to foot the bills? Who will ultimately be likely to foot the bills?

Fortunately China loves peace; China has given historic demonstration of her love of peace as few peoples have ever done. Is not this love of peace an asset worth cultivation by western nations? It is not indeed worth importing and cultivating on western soil?

China desires scientific education. Just now she is more anxious for the results than the method and the spirit. She would like to put her four hundred millions into the western type of efficiency which Japan has given to her forty millions. But still China prefers peace. And the radical educational question of the hour is this: May she have the scientific education of peace which she prefers or must she have first a scientific education for war? May she secure peace by peaceableness or only through prowess in battle?

In the past the Chinese have placed the scholar at the top of the social scale and the soldier at the bottom. Will the western world permit this scale to stand and adopt it for themselves or will they force its reversal? Will the West do what

is best for the East and for the West alike? Will the West join in promoting the spirit and method of science, in the spirit and method of peace? In a word, will the West be eminently wise or stupendously foolish?
