

## WHAT GEOGRAPHY OUGHT TO BE.

By PRINCE KRAPOTKIN.

[Delivered to the Members, in the Memorial Hall, Wednesday, November 6th, 1889.]

THE CHAIRMAN (the Rev. S. A. Steinthal) said that the reputation of the lecturer was as wide as the civilised world, not merely in connection with social questions but also with regard to scientific subjects.

Prince KRAPOTKIN then said: Before dealing with the main subject I will give some explanations of the map of Siberia and Central Asia on a scale of 1 to 2,500,000, which I have prepared to illustrate my lecture. It represents my own views on the structure of Asia, and embodies the results of the last explorations of Russian geographers. The difference between this map (which is very much like Petermann's map of Asia in Stieler's Atlas) and those common in England is that, instead of covering Asia with isolated chains of mountains like the Alps or the Caucasus, it shows the extension of the two great plateaux of East Asia and West Asia, fringed by border ridges, and having on both sides a succession of high plains and, further down, of low lands. The Urals also appear as a succession of chains running either S.W. to N.E. or S.E. to N.W., thus embodying the last explorations of the Geological Committee and of M. Kuznetsoff in the north. Since geographers had endeavoured to make geography an exact science its field had been disputed by all kinds of specialists, such as the geologist, the meteorologist, the oceanographer, and the ethnologist. In such conditions the geographer had to take a broader view of his subject, and consider his science as the study of those general laws which govern all the above separate phenomena, and disclose their mutual dependency. However, this wide range would easily divide into, at least, four separate branches, each of which could be best cultivated by the geographer. There is, first, the study of the great laws which govern the life of the earth's crust and shape its surface; the growth of continents, their figures, their orographical structure, the changes they are steadily undergoing, and so on. Then there is the study of the separate climates as depending upon the characters of the earth's surface and the local topographical conditions—a wide field, upon which MM. Buchan, Mohn, Woyeishoff, Hahn, Supan, and so many others are working with so much success. And, finally, there is the study of the laws which preside over the dissemination of animal and vegetable life, and those which governed the life and development of human society. It also has been remarked that geography was not a science, because it was a simple description of facts—a *graphy*, not a *logy*. But mere description is impossible—every description necessarily requiring some classification—and every attempt at classifying necessarily brings us to a study of origin and laws of evolution. This idea is illustrated by some of the recent explorations made in Siberia and Central Asia, each of them showing how a simple description of the orography, or the fauna, or the flora of a locality implies a study of origin and evolution. M. Chersky's geological and orographical exploration of Lake Baikal;

M. Yadratseff's work on the rapid dessication of Lake Tchany; and M. Krasnoff's remarkable work on the flora of the Tian-Shan are so many illustrations of the fact that a simple attempt at describing facts of the present, involves the geographer in a series of researches into the past physical features of the country which he is going to describe. With regard to the flora of the Tian-Shan, it appears from M. Krasnoff's researches that during the earlier part of the post-glacial period the Tian-Shan and the great plateau were covered with a vegetation very much like that of Northern Europe nowadays, and, without entering into that much-debated question, it suffices to point out the bearing of that discovery upon the question as to the origin of the Aryans. It was said that the Aryans could not have come from Asia, because in their folk-lore mention was made of vegetation which rather belonged to a cold, sub-arctic climate, and not the dry vegetation of the steppes. It was true the Aryans could not have originated from the Asiatic plateaux if those plateaux had the same vegetation as now. But that vegetation was not the vegetation the mountains had had in the glacial period, or even in a later part of the post-glacial period. There was another duty which geography ought to perform, and that was to accustom people to consider that every nation had brought something most useful to the development of humanity, and not to consider that only a few nations were predestined to accomplish the progress of the world. Thus a great many national prejudices might disappear. Geography might also teach them that the lower races ought not to be treated as they are now—as enemies to mankind. They must consider the lower races as being a most precious element in our development, who ought not to be destroyed, as they were being destroyed, by whiskey, shooting, and extermination. He was persuaded that they might bring some new element into our life that we could not develop ourselves. Taking geography as an educational subject, everyone must have observed how much geography, which was an immensely interesting subject, was hated in schools as being one of the most annoying and uninteresting of subjects. Everything that concerned man was interesting to children. Geography might become one of the most powerful levers for inducing a taste for natural science, and a desire to study its laws, on the part of children. They could not interest children merely with classification of zoology and botany, but they could interest them with zoology and botany if they went through man and his habits, his hunting, and his life in different countries. It was much more advantageous not to begin with the description of minutiae, but rather to begin with some broad general ideas on the structure of the earth, and then to return to a description of particular localities. Again, the advocates of classical education laid stress on the claim that that kind of education imparted to the pupil a human view of mankind. He thought that geography could do it better. What could be better than a description of the habits of all the tribes disseminated over the surface of the earth to interest the children in mankind? From this humanitarian point of view geography was a most formidable substitute for Latin and Greek. Finally, geography might become, in the hands of an able teacher, a kind of summary of all knowledge acquired in school in separate branches of natural science. It was not a simple coincidence that the *Kosmos* was written by a geographer. It is the duty of the teacher in geography to show the mutual dependency of all separate branches of knowledge studied in school, and to apply them to the study of the surface of the earth and its inhabitants.

The Rev. L. C. CASARTELLI, in proposing a vote of thanks to the lecturer, said he thought the Prince's remarks with regard to the cradle of the Aryan nations were extremely valuable.

MR. J. HOYLE TODD seconded the resolution.