

as it can anywhere be seen in the valleys of the Rhine or of the Danube. I might even speak of 'Berg' and 'Thal-Löss,' but I shall not enter into details on this occasion; for I may have a much better opportunity of studying this remarkable deposit. At present I will only notice that commonly we meet with extensive deposits of *Loess* only in the valleys. Its thickness varies in places from ten to eighty, and more, feet; a fine yellowish *unstratified* clay, occasionally with calcareous concretions and plant fragments. In Europe the origin of this extensive deposits was, and is up to the present date, a disputed question. Naturally, if a geologist is not so fortunate as to travel beyond the 'Rhine' or 'Donau-thal,' and is accustomed to be surrounded with the verdant beauty of these valleys, he might propose half a dozen theories, and as he advances in his experience disprove the probability of one after the other, until his troubled mind is wearied of prosecuting the object further. Here in the desert countries, where clouds of fertile dust replace those of beneficial vapour, where the atmosphere is hardly ever clear and free from sand, nay occasionally saturated with it, the explanation that the *Löss* is a *subaerial deposit*, is almost involuntarily pressed upon one's mind. I do not think that by this I am advancing a new idea; for,—unless I am very much mistaken,—it was my friend Baron Richthofen who came to a similar conclusion during his recent sojourn in Southern China.

Yarkand lies about five miles from the river, far away from the hills, in the midst of a well cultivated land, intersected by numerous canals of irrigation; a land full of interest for the agriculturist, but where the geological mind soon involuntarily falls into repose. And what shall I say of our road from Yarkand to Kashghar? Little of geological interest, I am afraid.

Leaving Yarkand we passed for the first few miles through cultivated land, which, however, soon gave away to the usual aspect of the desert, or something very little better. A few miles south-west of Kokrabad a low ridge runs from south-east to north-west. If we are allowed to judge from the numerous boulders of red sandstone and *Gryphaea* marl, some of considerable size and scarcely river-worn, we might consider the ridge as being composed of cretaceous rocks. But one hardly feels consoled with the idea, that in wading through the sand he should only cross a once cretaceous basin, and that the whole of this country should have remained free from encroachment of any of the kainozoic seas. It is very dangerous to jump to conclusions regarding the nature of a ground untouched by the geological hammer. The answer to any doubt must for the present remain a desideratum. On the fourth day of our march approaching Yangihissar, we also crossed a few very low ridges, but these consisted entirely of gravel and marly clay beds, most of them dipping with a very high angle to south by east, the strike being nearly due east and west. South of Yangihissar the ridge bent towards south-west, and there was also a distant low ridge traceable in a north-easterly direction, the whole having the appearance of representing the shore of some large inland watersheet. From Yangihissar to Kashghar we traversed only low land, as usually more or less thickly covered with a saline efflorescence, but still to a considerable extent cultivated. Here in Kashghar the distant heights of the Kuenlún, of the Pamir and Thinshan ranges, are ready to unfold their treasures, whether we go in a southerly, or westerly, or northerly direction; geological ground is even nearer to be found in some of the low ridges from twelve to thirty miles distant, while the Moralbashi forests lying eastward, invite the zoologist and sportsman. I trust we shall soon be able to see and relate some novelties from our neighbourhood.

Kashghar, 20th December 1873.

SECTION III.

NOTE REGARDING THE OCCURRENCE OF JADE IN THE KARAKASH VALLEY, ON THE SOUTHERN BORDERS OF TURKISTAN, by DR. F. STOLICZKA, *Naturalist attached to the Yarkand Embassy.*

THE portion of the Kuenlún range, which extends from Shahidula eastward towards Kotan, appears to consist entirely of gneiss, syenitic gneiss, and metamorphic rocks, these being quartzose, micaceous, or hornblendic schists. On the southern declivity of this range,