

Near Polu the Keriya-darya leaves the narrow gorge in which it pierces the principal range of the Kwen-lun. This part of its course still remains unexplored and will probably for ever remain inaccessible. DUTREUIL DE RHINS who tried that road had to return. ZUGMAYER again reached the river at Baba-Hatun or Arash; at some places here the breadth is so much as 50 or 60 m. In the prolongation of its valley to the S. W. a little river is regarded as its source, and is marked as such on existing maps, for instance on *Stieler's Handatlas*, where Keriya-kotel is marked as the watershed between the Keriya-darya and Lake Lighten. Somewhat different and also incorrect, the hydrography of this place is given on RAWLING'S map in *The Great Plateau*. This rivulet has only  $\frac{1}{10}$  of the volume of the Keriya-darya, which in reality gets most of its water from the watercourse at which Zugmayer's Camps XI—XIII are situated. Zugmayer thus was able to fix the situation of the upper part of the principal branch of the Keriya-darya and to correct the misunderstanding which had hitherto existed on the maps.

Near his camp XII the secrets of the mountains were opened by the deep valley of the river, and he found that the nucleus of these mountains consisted of granite, on the top of which was 20 m. of sandstone, and this again was covered by lava. The lava beds finally were to a great extent hidden by aeolian deposits and detritus.

Zugmayer criticises the maps of DEASY and RAWLING for these regions and finds the Russian 40 versts map much better, although it has the error of identifying Lake Lighten with Yeshil-kul.

Between the tributary of the Keriya-darya which comes from the Keriya-kotel, and the river which goes to Lake Lighten he found a smaller self-contained basin. He believes the name Keriya Kütel is a false etymology, as it ought to be Kara-kotel. I think Keriya-kotel is more correct, at least I only heard this name. The pass Zugmayer crossed between his camps XV and XVI, being 5,690 m. high, corresponds with the Keriya-kotel of the maps. His pass between camp XVI and XVII, being 5,650 m. high, corresponds with the pass marked on the Russian map. Deasy and Rawling have misunderstood the geography of this place.

Zugmayer, finding the form of Yeshil-kul different on all existing maps, says that the lake in reality changes, depending on the amount of inflowing water. A steady desiccation is going on. He had no opportunity to measure the depth but believes, on account of the flatness of its basin, that the maximum depth must be at the most 5 m.<sup>1</sup> From old shore-lines he saw that the lake must have been several times larger formerly than nowadays. At the northern shore, not far from

<sup>1</sup> The greatest depth I measured in Yeshil-kul, 1906, was 16.1 m. *Transhimalaya*, Vol. I, p. 121, and Vol. IV, *supra*, p. 52.