

mentioned feature: there is no cataract at its entry into the Jätim-tarim. The water in these kok-alas is perfectly clear. And so potential is the outpour of the upper kok-ala that, even at a distance of a couple of hundred meters below the confluence, it thrusts to one side the muddy water of the Jätim-tarim, until the latter forms a narrow ribbon of grey close along the right bank. This emissary is however the most powerful of the arms of the Tschivilik-köl which here enter the river. Just below it the Jätim-tarim is divided into two branches, of which the smaller is on the right. In front of the middle kok-ala a small sedimentary island has formed, and on it the kamisch has already begun to establish itself. The banks of the upper canal are adorned with tolerably vigorous forest, estimated to be 60 to 70 years old, the poplars being almost as advanced in age as those of Schirge-tschapghan. This forest already existed when Muhamed Emin came into this part of the country, and he was of opinion that it had altered but little in appearance since he arrived. The toghraks of the Jätim-tarim have on the other hand shot up since he did come; their age he estimated at 15 years; they are 8 to 10 m. high and slender, and stand close together.

It is only below the upper kok-ala that the river assumes a more imposing appearance, and this becomes still more accentuated after it has been joined by the others. Above them it is however unimportant, and this is said to be the reason, coupled with its insignificant current, that it is called the Jätim-tarim, which properly means »fatherless and motherless», as much as to say, it is deserted, helpless, awkward. To avoid the trouble of measuring all these different canals, I measured instead the Jätim-tarim above them, with the following result: breadth, 24.61 m.; mean depth, 1.348 m.; mean velocity, 0.1456 m.; and volume, 4.83 cub.m. in the second. The day before we had obtained below these same canals a volume of 22.64 cub.m.; so that the amount contributed to the river through these kok-alas amounts to not less than about 18 cub.m., all of which issues out of the Tschivilik-köl, and by this route makes its way to Arghan. The conformation of the bed of the Jätim-tarim both above and below the kok-alas is approximately the same, but above them the current is excessively slow. The cataract in the lowest kok-ala makes a descent of 1.68 m.; that of the middle kok-ala descends by three steps, respectively 0.40, 0.50, and 0.34 m. high, or 1.24 m. in all. The difference of 0.42 m. is distributed over the slopes which stretch above and between the actual »thresholds». The uppermost kok-ala makes a fall of only 0.40 m., though for a considerable distance below it there are broken rapids.

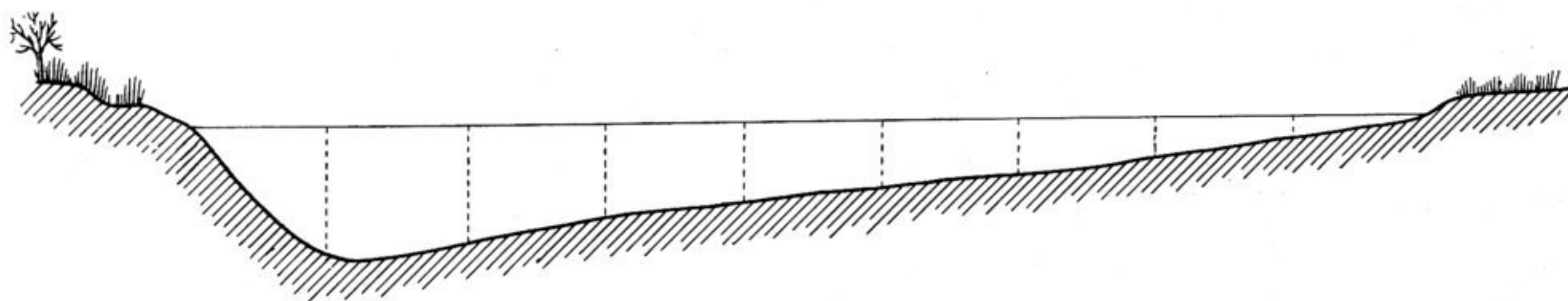


Fig. 429.	Right.	2.63	2.30	1.86	1.60	1.33	1.12	0.81	0.48.	Left.
		18	24	22	18	18	7	1	0	
		19	27	24	22	19	5	1		
		22	19	20	18	7	3			
		10	11							

Breadth = 24.61. The Jätim-tarim above the channels from Tschivilik-köl; April 28. Scale = 1 : 200.