

the country, the frequently low terraced banks, in conjunction with the immense masses of water that roll down the river; and through these inundations probably quite as much water is lost as disappears through the instrumentality of the permanent or newly formed marginal lakes. Between Lajlik and Mejnet the level of the high water is said to rise fully 2 m. above the level at the beginning of March.

On the 8th March the water had at Lajlik a temperature of 8.3° and all the drift-ice had disappeared; the transparency amounted to 4.9 cm. At its narrowest part, just where the ferry-boat between Lajlik and Merket maintains communication between the two banks, the breadth amounted to 61.4 m. The river-bed presents in its formation at that place a good deal of regularity. The greatest depth was sounded under the right bank, where the volume also was the greatest, precisely as was the case a little lower down where we made our camp in 1899. The maximum depth amounted to 1.90 and the mean depth to 1.75 m.; while the mean velocity worked out at 80.6 cm. and the volume at 86.6 cub. m. per second. Consequently the river had at Lajlik on the 8th March about the same volume that it had at Jarkent on 23rd December. For this there is one very simple explanation: it lies in the word *mus-suji*. After the river has dropped to its lowest ebb in January and February, it begins to rise in consequence of the melting of the ice, and by 8th March the rise has already passed its maximum. After that date the river at Lajlik continues to fall, until in the latter half of the spring it gets as low as it is in the end of February. Thus it was that on 30th May I found in the Jarkent-darja immediately above its confluence with the Ak-su-darja a volume of not more than 7.5 cub.m.; but to this result the serious drain made by the large irrigation canal which goes to Maral-baschi must be regarded as a contributory. One or two weeks later the river rapidly rises at that point, until it swells out to gigantic dimensions, fully equal to those it assumes at the season of the high flood proper, which arrives at midsummer. There is therefore in the lower Jarkent-darja an interval of three months between the arrival of the *mus-suji* and the arrival of the high-flood proper.

And the same interval parts the two in the Ak-su-darja; though in consequence of that river's shorter course, both floods arrive at an earlier date. On the 31st May its Kona-darja carried 7.6 cub.m. and the main stream on 2nd June a volume of 69.3 cub.m., or a total of 77 cub.m. But by 8th June the united volume of the Ak-su-darja had swollen to no less than 475 cub.m. in the second, and there was every probability that the river would rise higher still. And just as this flood reached the confluence a month earlier than that of the Jarkent-darja, so we may also assume that the *mus-suji* of the former would also reach the same point a month sooner than the *mus-suji* of the latter. At any rate the difference in time is at least two weeks (see vol. I., p. 80).

We have found therefore that, while the two high-water periods occur almost simultaneously in the highland regions, at the confluence of the Ak-su-darja and the Jarkent-darja they are separated by an interval of three months. And when we get down towards the end of the river, for instance at Abdal, the difference amounts to no less than seven months; though here we have also the great peculiarity, that the high water which is caused by the thaw-flood is virtually as powerful as the flood of the high-water season proper. The former occurs throughout the whole of