

to be that in many arid regions forests have been cut off, and have not been able to replace themselves because of increasing desiccation due to other causes. In Europe, the forests have been cleared because the country has now become so warm that agriculture is profitable and a dense population can be supported. The climate of Europe seems to have gone through the same changes as that of Africa and Asia.

Before summing up the results which changes of climate may have had upon the history of the world as a whole, it will be profitable to inquire into the influence of the far milder changes of the Brückner cycles during the nineteenth century. If they prove to have been attended by important results, we can scarcely avoid the conclusion that greater changes must have produced greater results. The worldwide dry periods of the last century may roughly be said to embrace the years 1830-40, 1865-75, and 1887-97. During the first epoch the Lop basin suffered severely from drought. The villages of Dumuka, Ponak, and others were abandoned for lack of water; and new villages were founded higher upstream. Distress of the same sort prevailed in other places, and large numbers of people moved to new sites. Some went along the zone of vegetation, and far to the east founded the villages of Niya, Cherchen, and Charklik. The movements of this time are unquestionably due to climate, and it is fair to say that whatever of hardihood and experience, or of trouble and distress, came to the people as the direct result of their migrations, may be set down as a result, slight but genuine, of the action of geographic forces in forming character. The next two periods of deficient rainfall are characterized by rebellions among the Dungans and others, and by