In order to close our section on the Pamir with a tentative reconstruction of its Quaternary history, we may, in prevision, assume a subdivision into erosion cycles justified by these valleys.

TENTATIVE RECONSTRUCTION OF QUATERNARY SEQUENCE OF EVENTS.

First cycle (Pliocene).

Pliocene mountains with the present Aralo-Caspian and Gobi basins defined in a general way. Erosion to low relief of Central Asia's peneplain and piedmont stage. Remnant ridges still rising out of Pamir's worn-down topography of rolling uplands.

Second cycle (Quaternary).

High uplift of mountains.
Deep gashing of old Pliocene topography.
Expansion of first epoch of glacial period with alluviation of valleys.
Recession of first epoch of glacial period, leaving transportation in the Northern Pamir blocked around by moraines and its valleys converted into lake basins.

Third cycle (Quaternary).

Uplift (block-tilting of Alai).
Narrower gorges incised in second-cycle flood-plains of lower valleys, but Pamir still isolated with second-cycle topography intact.
Expansion of second epoch of glacial period; lake Kara Kul filled to about 200 feet above present shores; alluviation of valleys of border ranges.
Recession of second epoch, shrinkage of lakes, but plains aggrade back into valleys bearing old moraines.

Fourth cycle (Postglacial).

Uplift, warping, etc.
Narrower gorges incised in third-cycle flood-plains of border ranges, but Pamir's second-cycle topography intact.

THE ALAI VALLEY AS A BASIN.

A DISTINCT TYPE OF VALLEY.

In passing north, east, or west off the high central mass of Pamir, we encounter a remarkable type of valley—a wide basin-like trough contained, often nearly inclosed, by longitudinal ranges and floored with a steppe of gently sweeping concavity. This is a type well exampled by the Alai valley and Keyak Bashi and common throughout the highlands of Asia, giving rise to their most fertile pastures. On a large scale it resembles the basins of Pamir, but differs from them because of lower elevation. The origin of these valleys may lie far back in Pliocene time, as a result of migration of the zone of piedmont upheavals, periodic encroachments of mountains on plains through successive upheavals parallel to the primal highlands. As their streams average about 10,000 feet in elevation, they are within the zone of held-up detritus and have the aspect of deeply filled troughs.

The Alai valley—the high eastern catch-basin of the Kizil Su (the first great branch of the Oxus)—is a long, broad, east-west depression between the Pamir's northern border ranges or Alai and Trans-Alai Mountains. As a basin, it is 110 miles long from the Taun Murun divide to its canyon outlet at Katta Kara Muk and attains a width of 30 miles from crest to crest of its inclosing ranges. The