



Fanning Out in Farmland Kazakhstan

Mountain streams are usually confined to narrow channels and tend to transport large amounts of gravel, sand, clay, and silt—what geologists call alluvium. When such a stream pours onto a relatively flat valley or basin, it often spreads out into multiple, interlacing channels. Over time, the channels migrate back and forth, creating fan-shaped deposits known as alluvial fans.

Landsat 8 captured this view of Kazakhstan's Almaty Province in September 2013. On the lower left, the Tente River flows through the foothills of the Dzungarian Alatau range. Where the Tente emerges, it spreads out and becomes a braided stream. The movement of the channel over time has left a large alluvial fan. In arid areas, these fans are often used for agriculture because they are relatively flat and provide groundwater for irrigation. The blocky green patterns show fields or pasture land.