mained matter after the separation of the biotite granite, in which case the may be as merely representing two stages of a single phase of intrusion. — The remaining granite differs markedly in mineralogical characters from both the foregoing and is especially characterised by the presence of hornblende and sphene. It was found to be common in the valleys of Brahmaputra and Kyi Chu in the neighbourhood of Lhasa and has also been noticed in the Upper Indus valley in Ladak, in Astor, in Gilgit and again in the Hindu Kush in Afghanistan . . . The age

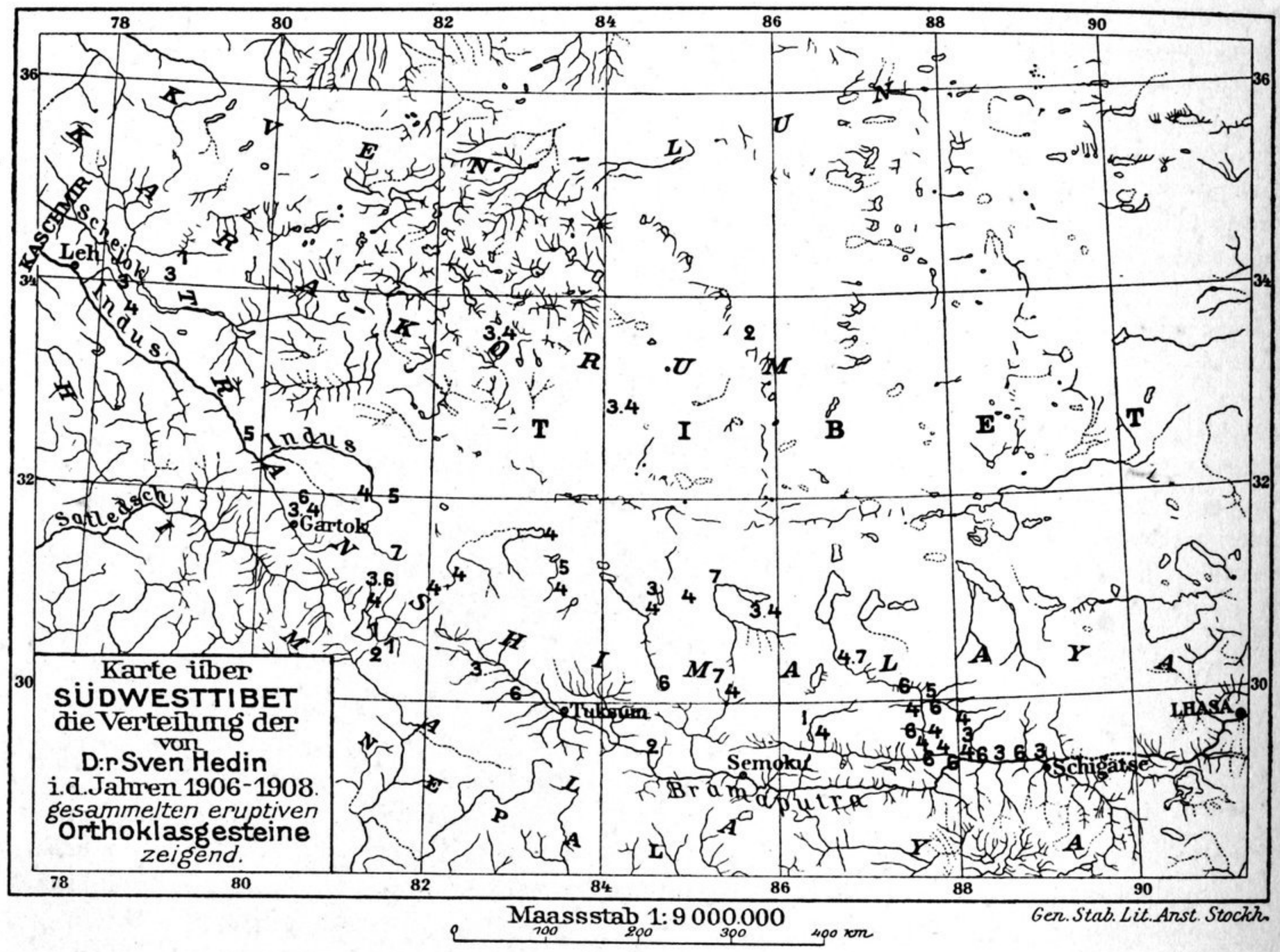

Fig. 3.

1. Muscovit-turmalinführender Granit. 2. Zweiglimmergranit. 3. Granitit. 4. Biotit-Hornblendegranit, Quarzbiotitdiorit 5. Granitporphyr. 6. Granitaplit, pegmatitischer Granit, »Turmalingranit». 7. Liparit mit quarzporphyrischem Habitus.

of the hornblende-granite is not known with certainty; it has been shown by General Mc Mahon to be older than the typical biotite-granite and was found in Tibet to be either late Cretaceous or post-Cretaceous. There is, therefore, no great difference in age between these granites and all three may possibly have been derived, by a process of differentiation, from the same magma, the hornblende-granite solidifying first, the biotite-granite next, and the tourmaline-granite last of all.»

Aus dem schon Gesagten ergibt sich, dass die Granite des Transhimalaya aus denselben Gründen wie die Granite des Himalaya als spät- oder postcretaceisch angesehen werden können.