SURVIVING IN THE DESERT AND SEMI-DESERT

by

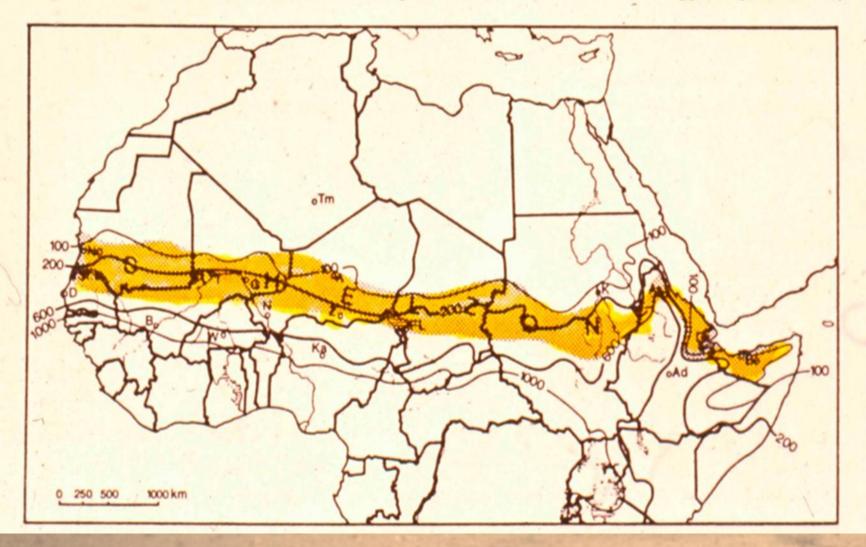
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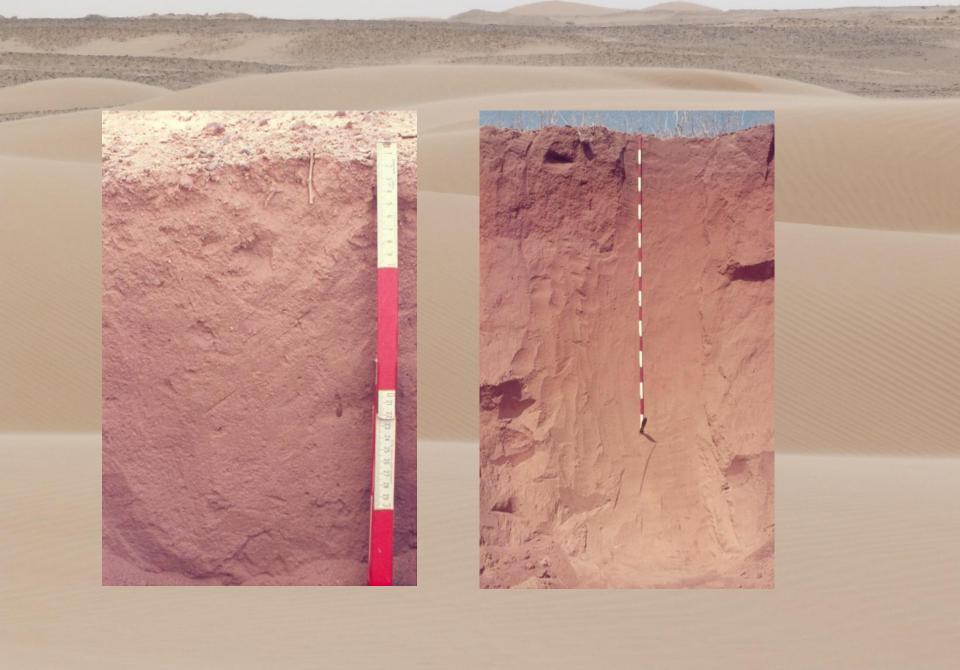


Fig. 1 Variabilität der Niederschläge im Sahel (in % vom langjährigen Mittel)

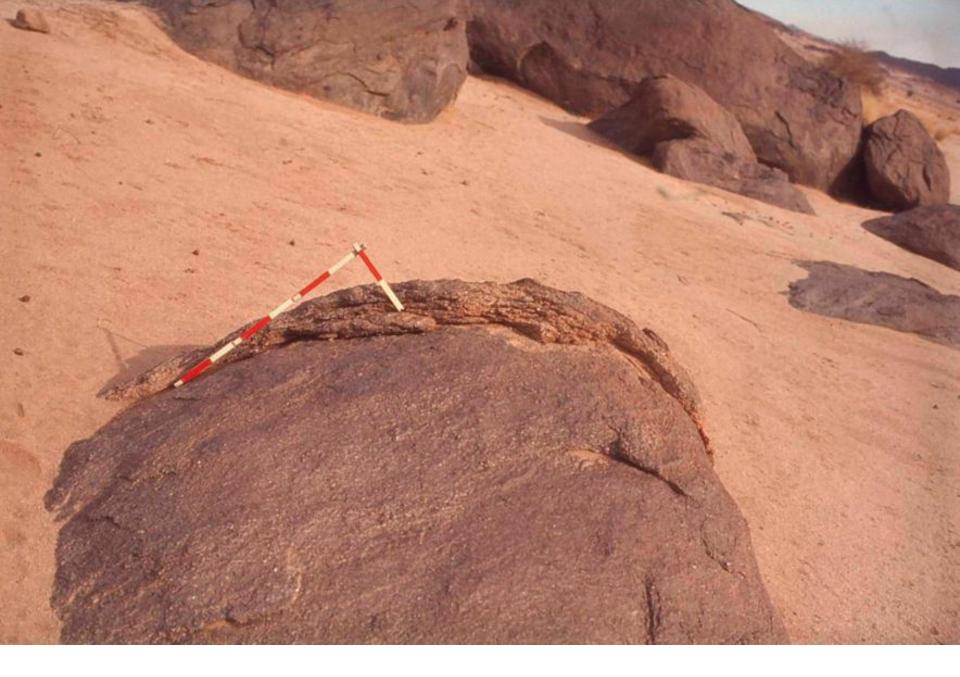


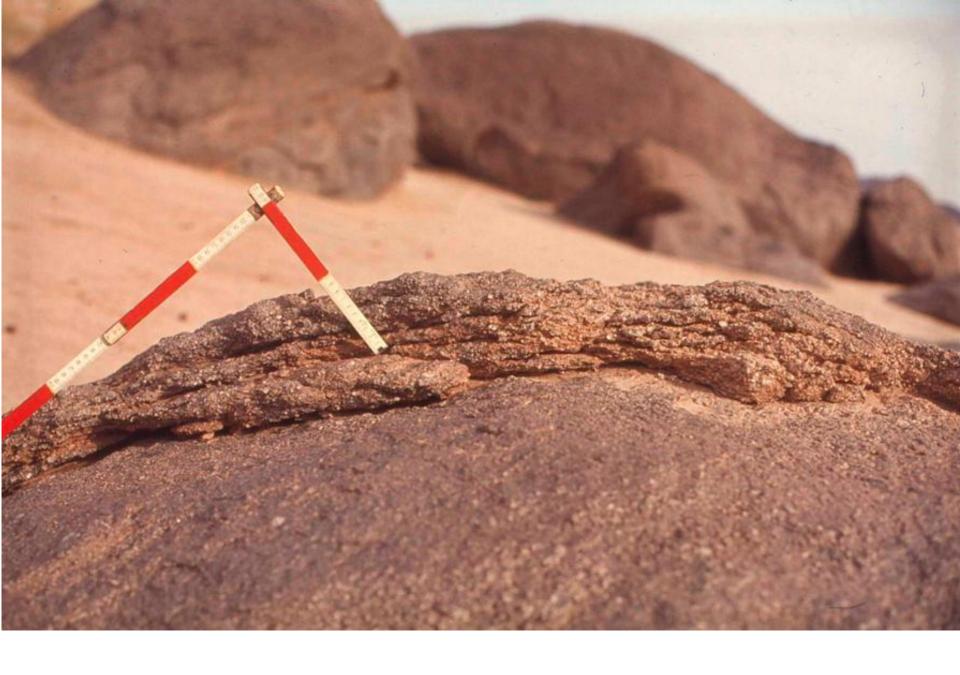








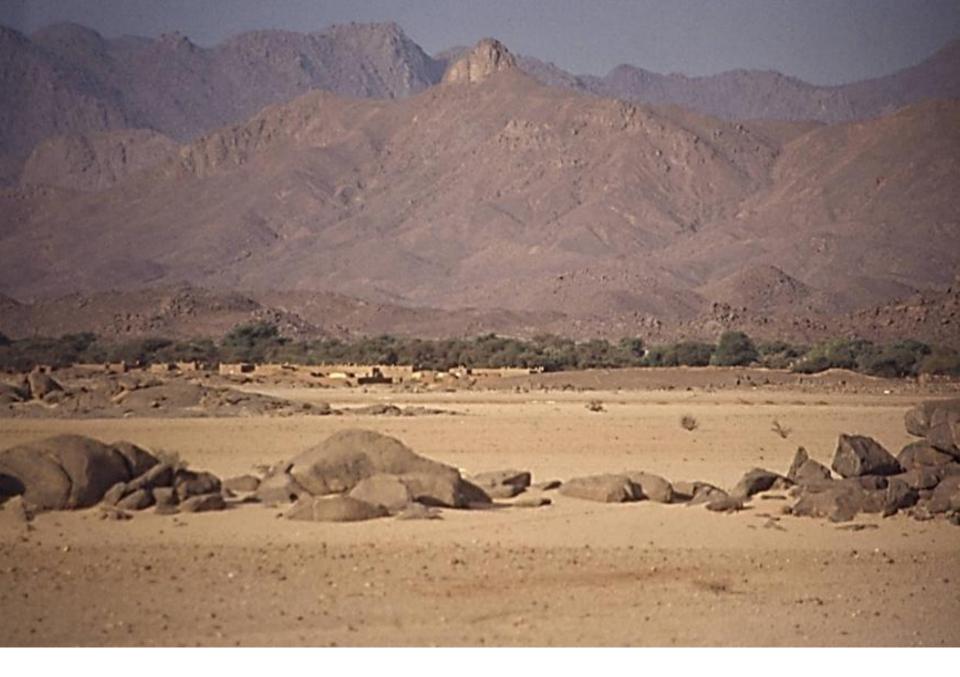






























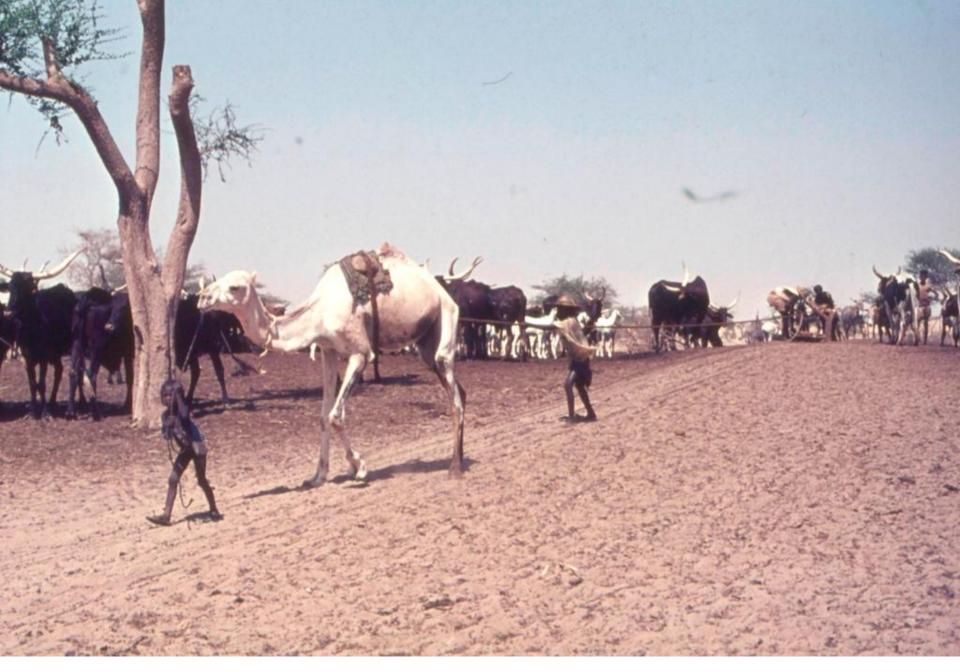




























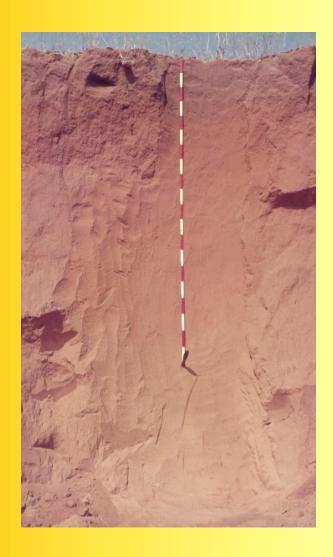














SUMMARY AND OUTLOOK

- 1. Deserts and semi-deserts are fragile terrestrial ecosystems, which can only be used by nomads, because of annually great variations in the meteorological conditions, limiting the biological production, especially plant growth.
- 2. A large part of the world population are nomads, which live in these environments, for example in the Sahel Zone in Sub-Saharan Africa.
- 3. Nomads are using these environments for grazing, producing animal protein (meat), milk and leather, organised in form of biological buffer systems, in which animals nurture and protect the humans and vice-versa. The number of animals around the humans guarantees the survival of both. In this context, the spatial distribution of water resources, e.g. in form of water holes and ponds is of great importance.

- 4. Because of hundreds of years experience and observation, all forms of land uses are strictly aiming at survival under worst case scenarios.
- 5. Permanent settlements under these environmental conditions would destroy the fragile ecosystems and are only possible under oasis conditions, where permanent water resources allow for gardening.
- 6. Because nomads are trained in using weapons for protecting their herds against wild animals and cattle thieves, they were traditionally suspect to neighbouring people in permanent settlements, causing ancient rivalries and conflicts, which continue until today, see the Tuaregs in Sub-Saharan Africa or the Curds in Near East Asia.

Thank you for your attention!

