## Exhumation History of Fuerteventura

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The basal complex of Fuerteventura has been reported to be of Late Cretaceous age (Balogh et al.; 1999). Based on published K-Ar-ages, the volcanic rocks are grouped into three classes; older than 20 Ma, 14-16 Ma and 5-3 Ma (Ancochea et al.; 1996). Only two apatite fission-track ages are published so far from an alkaline pluton in NW-Fuerteventura (de Ignacio et al., 2002). The fission-track ages of 25.4±3.6 Ma and 29.3±3.5 Ma are in agreement with K-Ar ages from the same area indicating rapid exhumation. Volcanic rocks and dikes of Micocene age show a second phase of magmatic activity. In the west of Fuerteventura, the occurrence of a palaeo-surface indicates exhumation of the basal complexes in the Upper Miocene. This palaeo-surface is partially covered by sediments that are subsequently covered by Pliocene basaltic flows (Coello et al.; 1992). Intrusive, dikes, and extrusive rocks of various ages as well as Cretaceous siliciclastic sedimentary rocks were sampled and analysed by low-temperature thermochronometry. Apatite and zircon fission-track and (UTh)/ He data will be presented together with thermal modelling to reveal the complex exhumation history of Fuerteventura. Additionally, a DEM from Fuerteventura was built to gain a better understanding of the transport direction of the sediments. While massif landslides towards the west have been reported (Stillman, 1999), sediment transport towards the eastern offshore area is poorly constrained due to a lack of seismic data. Analysis of the DEM shows however that sediments have been transported towards the east and northeast.

Key words: Exhumation, Fission track, (U-Th)/He