Paleomagnetic dating of lava flows from Ceboruco volcano, western Transmexican Volcanic Belt

Harald Böhnel¹, Francisco Javier Carrasco², Katrin Sieron³

¹ Centro de Geociencias – UNAM, Mexico

² Instituto Nazionale di Geofisica e Vulcanologia (Roma 2), Italy

³ Universidad Veracruzana, Mexico

Corresponding author: hboehnel@geociencias.unam.mx

Abstract: Ceboruco volcano is located in the western part of the Transmexican Volcanic Belt. A well dated and prominent plinian eruption (VEI=6) occurred around 1000 AD, and another historic eruption in 1870. Between these two events, at least 6 other lava flows were emplaced, which could not be dated so far by traditional methods. This complicates estimates of volcanic risk of Ceboruco volcano. All Ceboruco lava flows and some nearby volcanoes of probably Holocene age were sampled for paleomagnetic dating, and the results will be presented here. These show in general terms that most of the undated lava flows were emplaced shortly after the plinian eruption in 1000 AD. In few cases, paleomagnetic data suggest older ages, which were not expected because of stratigraphy arguments. We will discuss the possibility of problems in the remanence acquisition or rock tilting afterwards, and/or problems in the volcanic stratigraphy.

Keywords: Mexico, volcanic risk, paleomagnetic dating



Figure 1: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus rhoncus arcu non justo molestie viverra. Aenean et consectetur odio.

References :

Castle Meeting

Authors, year : Title. Journal, volume, pages

Authors, year : Title. Journal, volume, pages