Mid-Pliocene Fossil Wood from Gran Canaria Preliminary Note

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The first fossil plants from Gran Canaria and, as far as is known from the entire Canarian Archipelago were found

a) as excellently preserved stems and branches of small trees, some of them being several dm long and more than 20 cm in diameter. They occur at the base of the "Roque Nublo breccia" which fills a deep fossil valley carved out along the caldera perimeter fault which separates the Mid - Miocene alkali basalts from the trachytic-rhyolitic sills, ignimbrites and phonolites in the northwest part of the island (SCHMINCKE, 1967);

b) as carbonatized plant fragments along bedding planes in fluviatile volcaniclastic sandstones of the "Roque Nublo breccia" on the east side of Barranco de Hoya.

The plants have not been determined yet - so that their stratigraphic value is still uncertain. However, they are of some ecologic and paleoclimatologic importance because they indicate a plant cover of the island at the beginning of Roque Nublo time (possibly Mid-Pliocene, i.e. about 5 million years ago).

The first and main phase of the island's volcanic history started about Mid-Miocene time (ABDEL-MONEM et al. in SCHMINCKE 1967) with the building of a basaltic shield volcano, ignimbrite effusion, caldera collapse, and construction of central volcanoes in the island's center (SCHMINCKE

1967). The culminating phonolite volcanism may have ended about 9 million years ago (op. cit.).

The ensuing long erosional period during which the whole island was worn down to a skeletal volcanic edifice with deep barrancos but with a total height well over thousand metres, and during which a plant cover spread over the valleys, may have lasted several million years. The forests were completely destroyed by fire and the explosive blasts from dense, highly lava-charged, glowing avalanches that burst forth from the island's center and rapidly filled up the deep radial barrancos with what is now known as the *Roque Nublo breccia.*

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Zusammenfassung

Auf Gran Canaria wurden gut erhaltene fossile Hölzer an der Basis und innerhalb der Roque Nublo Breccie im Westen der Insel gefunden. Sie sind der erste Hinweis einer fossilen Pflanzendecke, möglicherweise mittel-pliozänen Alters und, neben marinen, spätmiozänen Mollusken, die einzigen bisher von Gran Canaria bekannten Fossilien.

Resumen

Se ha encontrado en Gran Canaria (lado Oeste de la isla), las primeras muestras de fósiles vegetales, indicación y testimonio de una formación de vegetación superior durante una época geológicamente remota. Se trata de fragmentos de troncos y ramas de árboles (petrificados, otros carbonizados), por parte de más de 20 cms. diámetro, bien preservados en el estrato de roca conocido por "Roque Nublo breccia". Dichos fragmentos se da una edad de aproximadamente 5 millones de años, o sea de la época del plioceno medio.

Estas muestras son el primer hallazgo de fósiles vegetales del Archipiélago Canario, donde se conocían anteriormente sólo fósiles marinos (moluscos miocenos). Las muestras fueron enviadas para su identificación sistemática y para estudios petrográficos y paleoclimatológicos.

LITERATURE

H.-U. SCHMINCKE: "Cone sheet swarm, resurgence of Tejeda Caldera, and the early geologic history of Gran Canaria".—*Bull. Vulcanologique* 31: 153-162: 1967.