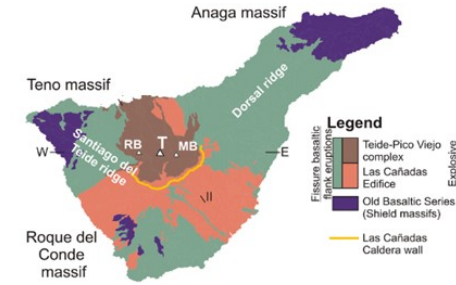


Canary Islands (Spain) – Tenerife 2

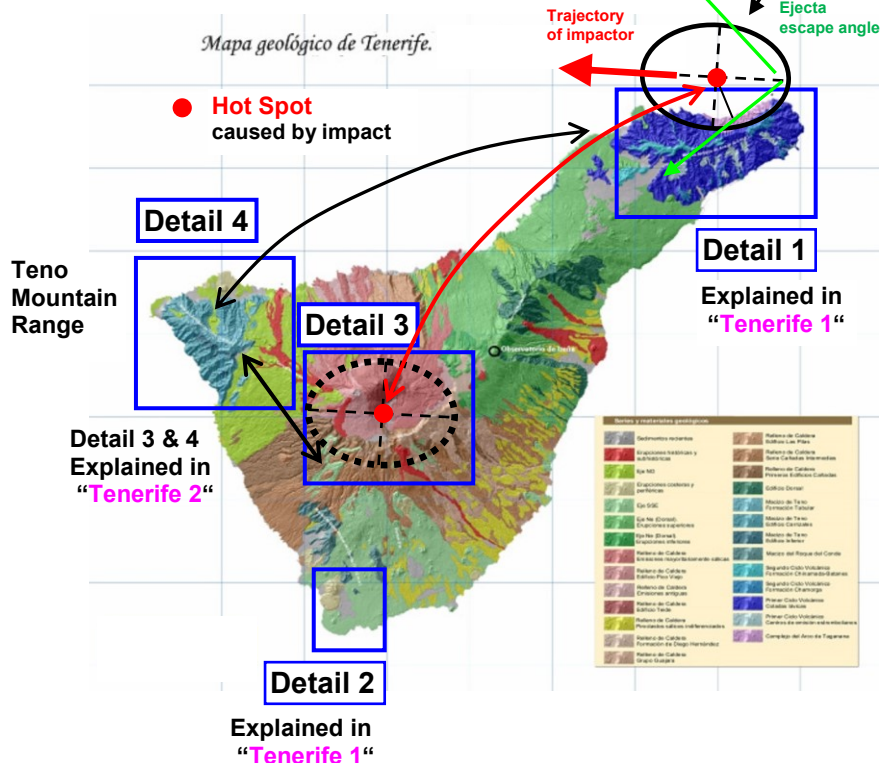
Overview of areas where samples were collected :

→ Geological Map of Tenerife with marked areas where rock samples were collected



Tenerife 2

→ Geological Map of Tenerife with selected areas



The Island Tenerife shows evidence of an Impact Event. This is the ~ Ø 15 x 11 km Anaga Crater just north of the Anaga Range on Tenerife.

→ See detailed explanation of the sample sites where rock samples were collected in the 1st trip “Tenerife 1 “ description !

The Anaga Crater in all probability was caused by an oblique Impact (a secondary impact) caused by the Permian-Triassic Impact Event (PT-I).

The impact point of the Anaga Crater in deeper crust layers (a “hot spot”) later tectonically drifted away from the Anaga Crater (see red arrow) and was responsible for the formation of the large Pico del Teide Volcano which is still going on today, supported by an Expansion Tectonics process which is still going on today..

The deep Anaga Crater impact point which probably caused a puncture (hole) in Earth’s crust was responsible for the massive volcanism on Tenerife (→ Pico del Teide Volcano).

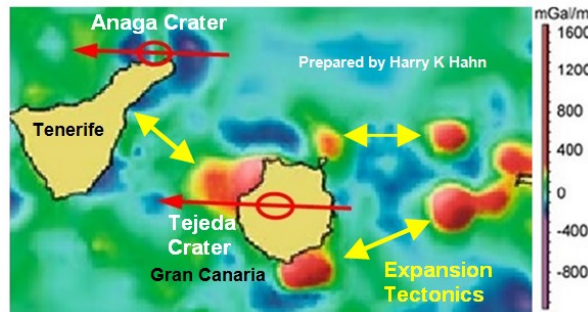
Some rock samples were collected inside the big caldera which surrounds Pico del Teide volcano

An interesting site is an „Old rock Island“ inside the caldera which may also provide proof of the Anaga Crater impact event. This old rock could have a P/T-age of ~252 Ma. The old rock probably was lifted by the impact or by the growing volcano from the original ancient ocean floor(?)

Additional some rock samples were collected in the Old “Teno” Mountain Range which probably was the western extension of the Anaga Range (Crater Wall) at the time of the PT-Impact (and was effected by the Anaga-Impact) and then later drifted away from the Anaga range (see black arrow) caused by an “expansion tectonics process” after the PT-I.

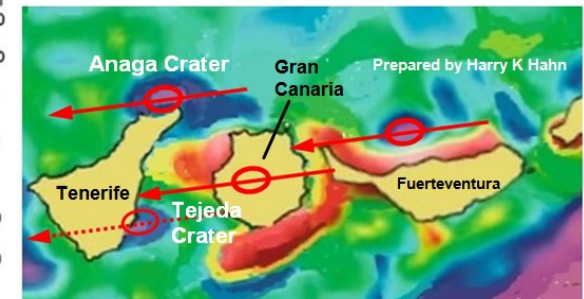
The Anaga Crater probably was covered a long time period by the remains of a large shield volcano that grew on top of the Anaga crater after the impact, caused by the described hot spot which was caused be the impact. Therefore most impact structures are still covered mostly with much younger volcanic rocks, because volcanism is still going on today. But on some places impact effected rock may be present ! (e.g. sample site 7). The hot spot is still drifting away from the Anaga Crater in south-western direction as the red arrow on the geological map indicates.

original Gravity Anomaly Map – Canary Islands



modified Gravity Anomaly Map :

→ Island locations between the impact event & today

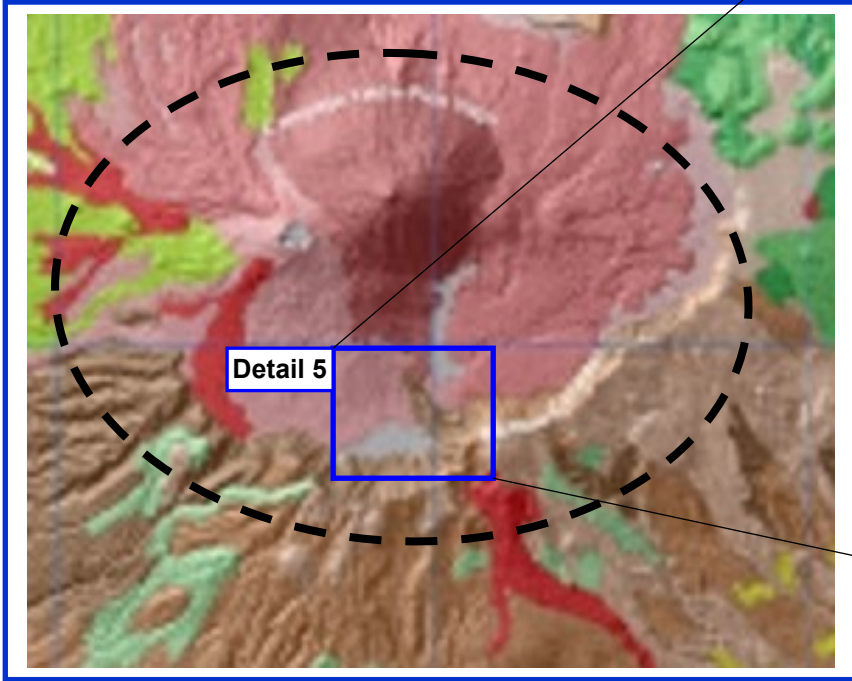


Tenerife 2

Sample sites No : 50 to 58 marked in yellow on the maps

Geological Map → Weblink : [MapasIGME: MAGNA 50 - Geological map of Spain, scale 1:50.000](https://mapasigme.mgma.es/MAGNA50)

Detail 3 Pico del Teide - Volcano

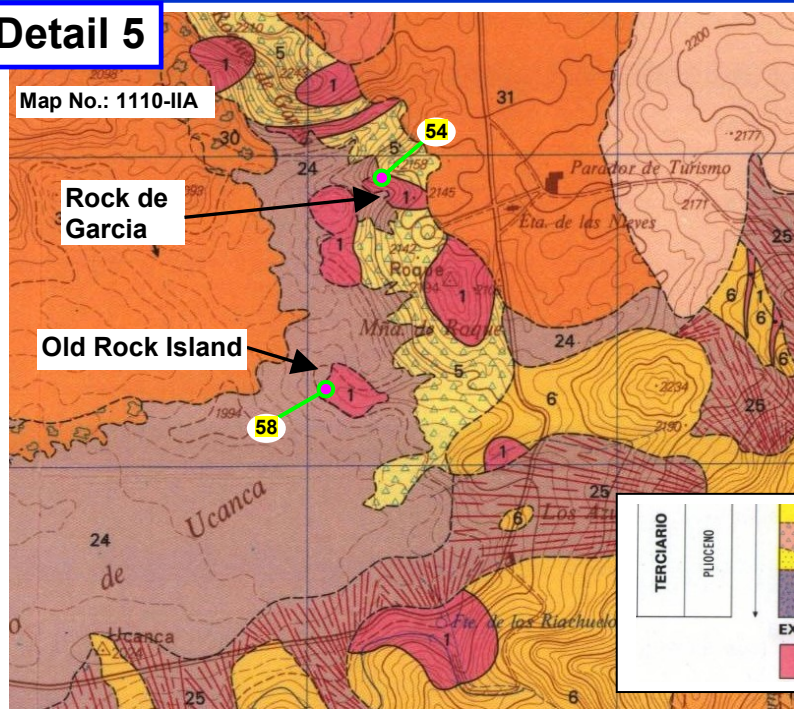


Detail 5

Map No.: 1110-IIA

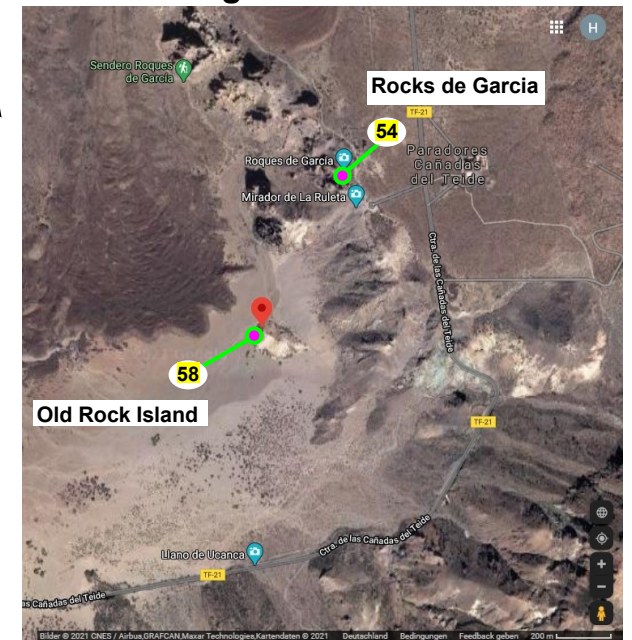
Rock de Garcia

Old Rock Island



TERCIARIO	
PLUOCENO	
7	7 Fonolitas
6	6 Tobas y pumitas atravesadas por diques
5	5 Brechas pólmídicas
4	4 Brechas traquibasálticas y traquibasaltos
3	3 Fonolitas
2	2 Basaltos plagioclásicos
EXTRUSIONES	
1	1 Extrusiones Síficas

Satellite Image of Detail 5



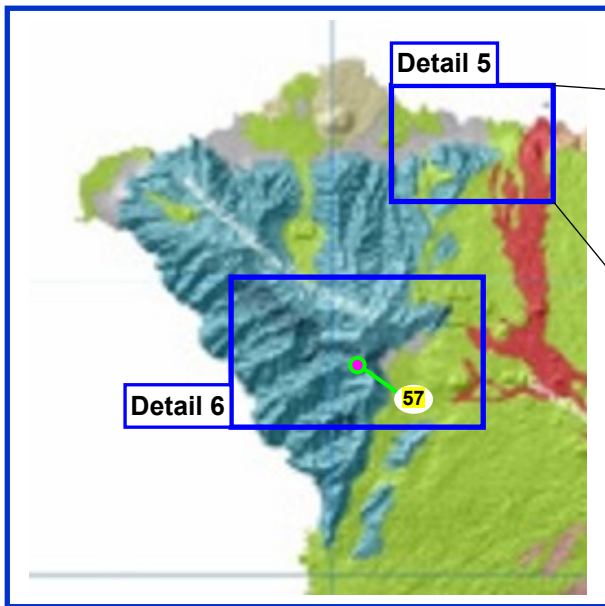
Rocks de Garcia : sample side 54



Old Rock Island : sample side 58

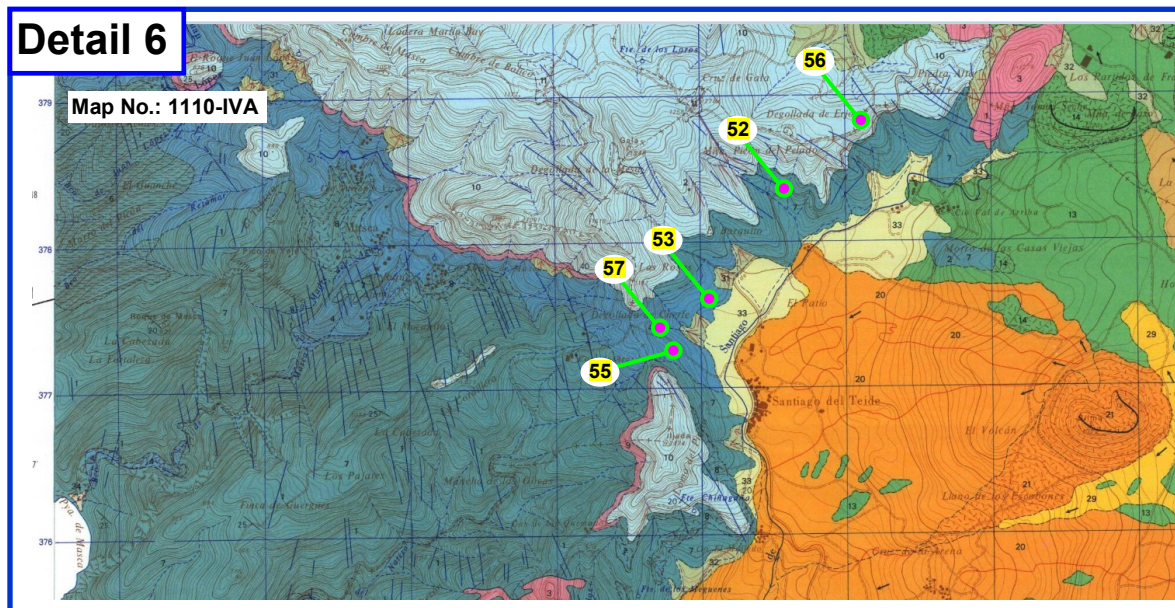
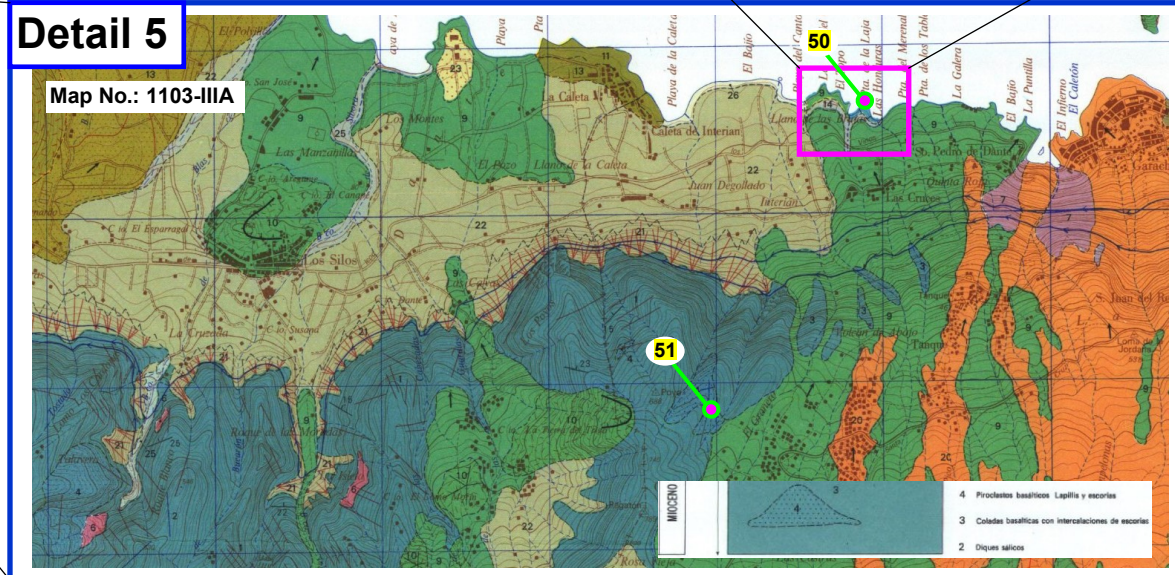
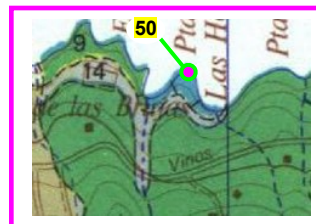


Detail 4 The Teno Mountain Range

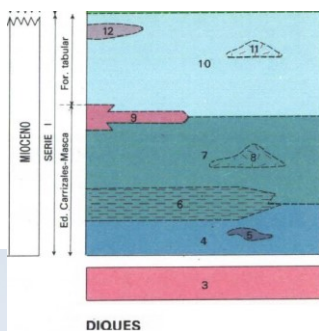


Geological Map :

→ Weblink : MapasIGME: MAGNA 50 - Geological map of Spain, scale 1:50.000



sample side 57



- 15 Sedimentos indiferenciados
- 14 Proclitos basálticos y traquibasálticos (lapilli y escorias)
- 13 Coladas basálticas. Traquibasaltos subordinados
- 12 Traquibasaltos fonolitas ráficas
- 11 Proclitos basálticos
- 10 Colada de basaltos tabulares
- 9 Brecha basáltica polimictica
- 8 Proclitos de caída (bombas, lapilli, escorias solistas y algún nivel de brechas)
- 7 Coladas basálticas con intercalaciones de escorias
- 6 Coladas, escorias y productos de proy. aérea (brechas)
- 5 Brecha de basaltos plagioclásicos
- 4 Basaltos plagioclásicos. Basaltos proxiénicos y ankaramitas
- 3 Pitones fonolíticos

