

mountains rise gradually. The secondary formations gently disappear, and are succeeded by the transition rocks, which indicate the proximity of primitive strata. We found considerable mountains composed of that ancient gray stone which the mineralogists of the school of Freyberg name *grauwacke*, and *grauwakkenschiefer*. I do not know whether this formation, which is not frequent in the south of Europe, has hitherto been discovered in other parts of Spain. Angular fragments of Lydian stone, scattered along the vallies, seemed to indicate that the transition schist is the basis of the strata of graywacke. Near Corunna even granitic ridges stretch as far as Cape Ortegal. These granites, which seem formerly to have been contiguous to those of Brittany and Cornwall, are perhaps the wrecks of a chain of mountains destroyed and sunk in the waves. Large and beautiful crystals of feldspar characterise this rock. Common tin ore is sometimes discovered there, but working the mines is a laborious and unprofitable operation for the inhabitants of Galicia.

The first secretary of state had recommended us very particularly to brigadier Don Raphael Clavijo, who was employed in forming new dock-yards at Corunna. He advised us to embark on board the sloop Pizarro,\* which was to sail in company with the Alcudia, the packet-boat of the month of May, which, on account of the blockade, had been detained three weeks in the port. Señor Clavijo ordered the necessary arrangements to be made on board the sloop for placing our instruments, and the captain of the Pizarro received orders to stop at Teneriffe, as long as we should judge necessary to enable us to visit the port of Orotava, and ascend the peak.

We had yet ten days to wait before we embarked. During this interval, we employed ourselves in preparing the plants we had collected in the beautiful vallies of Galicia, which no naturalist had yet visited: we examined the fuci and the molluscæ which the north-west winds had cast with great profusion at the foot of the steep rock, on which the lighthouse of the Tower of Hercules is built. This edifice, called also the Iron Tower, was repaired in 1788. It is ninety-two feet high, its walls are four feet and a half thick, and its construction clearly proves that it was built by the Romans. An

\* According to the Spanish nomenclature, the Pizarro was a light frigate (*fragata lijera*).