GREECE 2000
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During Easter 2000, 13 intrepid adventurers from the Society went on the Millennium expedition to the Aegean organized and led by Pat Bennett. Over the trip we visited four main islands with visits to several others. The geology of the islands was very varied ranging from volcanic to Barrovian metamorphism.

Geology was not the only interest of the party, other interests included history, bird watching, beekeeping. . . . . Oh yes! Food and drink. The staple diet of the party included Greek salad, cheese pie, calamari, olives and tost (toasted sandwich) with some Amstel and Metaxa to wash it all down.

Santorini
The first island that we visited was Santorini. Santorini is an island formed by the caldera of a volcano. The sea has breached the caldera wall forming a ring of islands around two smaller islands in the centre. We flew into Santorini on an island hopper plane called Creti! We then went to our hotel in Kamari.

The next morning we were driven to Thira. From this point we could see across the caldera to the islands of Nea Kameni and Palaea Kameni in the centre of the caldera. We walked down through the layers of ash, lava and ignimbrite to the small port at the bottom. We took the boat over to Nea Kameni where we climbed up the volcano. This is even possible on crutches! The boat then took us over to Palaea Kameni where the more adventurous people in the boat had a swim in the natural hot springs in the sea. On the way back there was a clear view of the layers of ash and lava.

Layers of Ash and Lava, Santorini

We went to the Minoan city of Akrotiri. This city was destroyed during a large eruption of the volcano, which blanketed the island in a thick layer of pumice. The houses and streets were very well preserved. There were also many frescoes preserved on the walls; however these had been removed and were on display in a museum in Athens. The Minoan eruption was the last in a series of 12 eruptions of the volcano. The pumice from the eruption can be seen all over the island and we saw the unconformity between the pumice and the Minoan palaeosol several times.

On our last day in Santorini we were driven up to the ancient city of Old Thira. This acted as a look-out post. The walk down from the city could by done on the modern road or on a Roman donkey track via a small chapel and a cave.

On the sharply winding road down the inside wall of the caldera to the port, we passed through the layers of volcanic rock and the pumice on to the Triassic basement rock. We then caught the ferry to Naxos leaving Santorini as night fell.

Naxos

Naxos is quite a large touristy island, which is famous for Ariadne's Arch in the harbour. As we were there in low season there were very few tourists. Naxos is mainly made up of metamorphic rocks chiefly marble and Barrovian schists.

We were taken to a marble factory owned by our hotelier's family. We saw the marble being cut up. Health and Safety rules did not seem to apply. There was a large heap of off-cuts of different marble types and there was a marble dry stonewall. We would have liked to have taken some of the larger pieces home but they would not have fitted into our hand luggage. We had to content ourselves with some of the smaller pieces.

We then went to the geological museum at Apiranthos. We saw many of the local rocks including the marble and some emery. There were also examples of rocks, which could be seen on other islands in the Aegean. There was a small collection from other countries, which had been donated to the museum. We added a piece of Cotham marble to this collection.

At Apollon in the north of the island there is a *Kouros.* A Kouros is a statue of a man carved out of the rock. They were usually carved out of beds near to the sea and which were dipping towards the sea. When they were finished they could be moved down dip to the harbour and transported away. Many Kouroi can be found on the island of Dilos, which were carved on Naxos. This Kouros was not finished, as there was a crack in it.

On the coastal road between Apollon and Naxos, town migmatite is exposed. We were told that we would be able to find sillimanite in the migmatite. Despite an extensive search we never found any.

Paros and Antiparos

We took the boat from Naxos to Paros. Paros also has many metamorphic rocks exposed. It is very famous for its marble. There are limestone caves on the island of Antiparos.

We took a bus to the famous marble quarries at Marathi. Parian marble is famous because it is a very pure, fine-grained white marble. It is so pure that it is possible to shine a light through a block 4cm thick. This quality gives statues carved from the marble a very lifelike colour. There are two quarries here. The oldest quarry was worked in Roman times and it is famous for producing the stone which was used to carve the Venus de Milo. The group went inside the quarry, where we saw a block which had been removed from the rock to be carved but had then been abandoned. The Parian marble dips sharply into the hillside at 45°. A shaft had been made following the dip of the rock.

The second, more recent quarry was excavated during the reign of Napoleon. The marble from this quarry was used to build his tomb. Parian marble is now protected and cannot be extracted.

At Naoussa on the north coast of Paros there were some folded schists. These schists had not been altered to migmatites as the pressure was too low. The schists were folded and there was some small scale folding on the limbs of the folds.

There were also gneisses present with felsic bands showing a mafic selvage. Large tourmaline and biotite crystals were present in the rock.

The next morning we went to the limestone caves at Antiparos. These caves contain many stalagmites and stalagtites.

Milos

After a slight detour to Siros, due to an uncertain ferry schedule, we arrived in Milos. Milos is an old volcano. The sea has broken into the crater forming a natural harbour. Milos is famous for its hydrothermal springs and mineral deposits. Milos has many economic mineral deposits including bentonite and kaolin.

We went for a walk up the rhyolite dome at La Plata. This gave a view of most of the island. We then took a less exhausting walk through the olive groves past a Roman theatre. There was a short impromptu performance of speeches from Henry V, Hamlet, Romeo and Juliet and other works in order to test the acoustics, which were excellent. Our walk continued through the olive groves past the cyclopean wall to the catacombs. The catacombs were carved out of the tuff and extended throughout the hillside.

In the afternoon we took taxis to Palaeochori. At Palaeochori there is extensive mineralisation of the rocks by fumeroles. This gave the rock a variety of colours ranging from pink red to yellows and greens.

On the last morning we went to look at the obsidian. There is evidence that the rock had been knapped into hand tools. On the walk we stopped to look at fossils preserved in the ash and some of the banding in the rhyolite.

That afternoon we went to the geological museum of Milos. There was information about the geology and the history of mining on Milos.

On the day that we were to leave Milos disaster struck. Our 'plane had been cancelled and so we could not get to Athens for our flight home. We managed to get on the fast catamaran to Athens but we could not fly home until the following morning.

Despite our few transport difficulties, this was a wonderful trip. We would like to thank Pat for putting so much time and effort into it and making the trip such a success. We all had a wonderful time and we would happily go again even if it was only for the Amstel and tost!