I must admit I have a great wife. It is one thing that after 30 years of marriage Heather still likes me, but she also agreed to spend our 30th anniversary in Italy. Not on the Italian Riviera, mind you, but climbing Italy’s active volcanoes. The idea for this trip planted itself in my head after I read “Walking with Volcanoes”, by Trina Riegel (January 2008 Rock & Gem).

Two things made me hesitant to take a trip such as that described in the article. First, since we cannot speak more than a few Italian words, we felt communication might be difficult; second, not being geologists, we wouldn’t be able to interpret everything we hoped to see and understand. The idea languished until I found a German tour company on the Internet called “Volcano Discovery” (www.volcanodiscovery.com), which offers volcano tours all over the world led by real volcanologists. After reading testimonials from tour participants on the Web site, I was convinced that a Volcano Discovery tour was for us. (Neither Heather nor I have any affiliation with Volcano Discovery other than being satisfied customers.)

Having never taken an organized tour before, Heather and I weren’t exactly sure what to expect. The fact that details like food, lodging, fees and transportation were organized for us and paid for up front would allow us to focus on the geology. We selected a tour called “Volcanoes of Italy: The Grand Tour”, scheduled to begin in Naples on Apr. 15, 2011 and end two weeks later in the Sicilian city of Catania.

Dr. Tom Pfeiffer, a volcanologist and owner/partner of Volcano Discovery, was the guide for our tour. His knowledge of volcanoes and historical lava flows was impressive. In addition, Tom could speak English, German, Greek, Italian, Danish, and Spanish fluently. With him, language was never an i-
sue. We think he did a great job of balancing the needs and desires of everyone on our tour against the timeline, and even when things didn’t go exactly as planned (mainly due to the weather), he always kept his composure and sense of humor.

We flew from Denver to Naples, arriving a day before the tour began to help alleviate our jet lag. Our first day in Naples was an experience, since neither of us knew more than a few Italian words. Historic buildings are everywhere in this city. We immediately realized that Naples was built from the by-products of volcanic activity. Basalt and tuff, a rock composed of compressed and compacted volcanic ash, were used as building materials and for surfacing the streets. We saw very few roads paved with asphalt.

The next evening, we met the other members of our tour group: a South African couple, a Danish couple, and three Germans. It turned out that one of our tour participants was an internationally known economic geologist, so we had two geologists on our trip. This resulted in many long dinner conversations about geology.

The first real day of the tour started with a bang. After breakfast, we boarded a bus and headed to Mount Vesuvius (Vesuvio in Italian), where the science of volcanology was born. Before climbing the volcano, we stopped at the first-ever volcano observatory for a quick presentation and tour by the very knowledgeable staff and saw the world’s first seismographs.

At the Vesuvius trail head, we took on another guide, as required for our climb. Because we were accompanied by a volcanologist, we got to make a different ascent than most people. As we climbed up through the craggy lava, it got windier and colder. The climb was steep, but not too long, and we made it to the upper rim of the crater at 1,281 meters (4,202 feet). Tom and our climbing guide pointed out all of the interesting sights, including where a lava shelf that allowed people to walk across the gaping crater had once been. This shelf was destroyed during the 1944 eruption. From the top of the crater, we could see Herculaneum and Pompeii, towns that were destroyed by an eruption of Mount Vesuvius in 79 CE.

Vesuvius, though dormant, has numerous fumaroles that emit water vapor and sulfurous gases. We climbed down from the crater rim to a set of fumaroles around which crystallized sulfur could be seen. The ground there was warm to the touch. Our climbing guide explained various aspects of Vesuvius in both English and German so everyone in our group would understand.

After climbing down from Vesuvius, we were taken to a private vineyard and winery and served an incredible lunch while sitting in the shade and looking across the short distance to the volcano. I was struck by the precarious existence the Napolitano people

The vertical, horizontal and jumbled columnar basaltic formations of the Alcantara River Gorge in Sicily were caused by quickly cooling lava flowing from Mount Etna.

The Serapeum of Pozzuoli is the ruins of a Roman marketplace that alternately fall below and rise above sea level due to bradyseism, the inflation and deflation of an underlying magma chamber.

The island of Vulcano is famous for its warm, mineral-rich mud baths, which are purported to have such physical benefits as rejuvenating skin and soothing aching joints.
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have, with Vesuvius on one side of the city and a supervolcano on the other. The people of Naples have built farms, homes and businesses right up into the red danger zones. If either of these volcanoes decides to erupt in a big way, they are in trouble. Of course, it is said that if the supervolcano on the outskirts of Naples were to erupt, all of Europe would be affected.

After lunch, we were off for a quick tour of Herculaneum, which is just as impressive as Pompeii, but without the flood of tourists. Even though only a quarter of the city has been excavated, you can see how beautiful it once was. After Herculaneum was destroyed, it was forgotten and a new city was built over top of it. We were surprised how far the original city sits beneath the modern one. Unfortunately, we had only about two hours before Herculaneum closed, so our visit was a bit rushed.

The next morning, we boarded our tour van for a trip to Pozzuoli and Campi Flegrei (the Phlegrean fields). This area, near Naples, is a very dynamic and dramatic place. Not only does it have some of the highest population density of anywhere in Europe, it is also situated on a massive supervolcano caldera. Our guide told us that there are some ancient Roman hot baths near Campi Flegrei that have not had hot water in almost 2,000 years, but had begun refilling the week we were there.

Here, we investigated past volcanism. Our first stop was a World Wildlife Fund site called the Astroni Nature Reserve, which is an undeveloped natural park that happens to be situated in a crater. We climbed stairs about 240 feet down into the crater where the forest and lakes are left in their natural state and there is an abundance of birds and other wildlife and interesting flora.

Next, we drove to the Serapium of Pozzuoli, which are the ruins of a Roman marketplace that used to be located at the shore. What makes these ruins unique is that they alternate between being completely submerged and completely above the water line, like they are today. This process is called bradyseism and is believed to be caused by the inflation and deflation of the magma chamber underlying the area. There are holes made by marine mollusks seven meters up the tall Roman columns that surround the Serapium, indicating that they were once that far below sea level. Between 1982 and '84, the Serapium and surrounding area were uplifted some 1.8 meters. This wreaked havoc on the surrounding area and left almost 30,000 people without homes. Scientists think the area is now in a deflationary stage and things are starting to sink again, no doubt creating further damage to the surrounding areas.

The Solidata was our next stop in Campi Flegrei. This is also a volcanic crater that still has fumarolic activity. While the level of activity is much less than at Yellowstone National Park, for example, it has a rather large, bubbling mud pool and numerous fumaroles that are encrusted with bright yellow and orange sulfur, and the smell to go with it. The Solidata is a major tourist attraction and outing destination for schoolchildren from many countries.

Our last geologic stop of the day was a volcanic crater called Monte Neuvu (New Mountain), which formed in less than a month in 1538. Originally, this area was a relatively level shoreline. It began to uplift until the ground tore open, and a 130-meter-high cinder cone 1 km across formed. This is an important event in scientific history because it was one of the first eruptions that was observed and recorded by large numbers of people. Between 1969 and '84, a series of earthquakes had scientists wondering whether another eruptive event was going to occur. Thankfully, it did not.

Capping this day off, we had dinner at a beach restaurant near Capo Miseno, near where Pliny the Younger and his mother witnessed the CE eruption of Vesuvius in which his now-famous uncle Pliny the Elder died trying to rescue people. During dinner, we had lively conversations about geology with our resident geologists.

Our final day in the Naples area was mostly spent at Pompeii, which is another reminder of how powerful and destructive a volcanic eruption can be. Pompeii is an amazing place to visit with its large public areas, well laid out streets, and its beautifully decorated homes. Some beautiful mosaics with vivid colors are still in place for visitors to see, while the most important finds have been moved to the Museo Archeologico Nazionale (National Archeological Museum) in Naples. Although somewhat grim, the ash-and-pumice casts of its buried residents drew large crowds.
Our final excursion, after dinner, was to the port to board an overnight ferry to the volcanic island of Stromboli in the Aeolian Island chain off the western coast of Italy. We must admit this was the most uncomfortable experience of the trip. We were given a very small, hot cabin with virtually no ventilation, which made sleeping next to impossible. The night didn’t last very long (thankfully); we were up on the deck at 5 a.m. to watch the approach to Stromboli. If we ever take this trip again, we will upgrade to a more comfortable cabin.

As dawn approached, we could see the outline of Stromboli, a classic volcanic cinder cone, and occasional bursts of ash from the upper vents. The term “Strombolian eruption” describes mildly explosive eruptive events that occur on a fairly regular basis. True to form, Stromboli erupted continuously while we were on the island.

Stromboli is a beautiful little island that is nothing more than a volcano jutting out of the Mediterranean. The island has a small number of full-time residents, while its population swells during the summer tourist season. Most of the buildings are finished in white plaster. Stromboli is called the “Lighthouse of the Mediterranean”, as it has been in almost continuous eruption for thousands of years, making it a useful landmark for navigation.

After lunch, we took a two-hour boat ride around the island. Leaving the boat, we walked through Genostra, the hillside village on the island that is only partially inhabited because of volcanic danger. While passing a scree area under the active vents, we saw volcanic bombs explode from the volcano and roll down the slope to quench themselves in the ocean. Before returning to port, we cruised around Stromboli, a volcanic plug off the coast of the main island that supports a lighthouse. This huge piece of rock juts prominently out of the sea and has been slowly losing its battle with erosion for some 200,000 years.

We walked for about an hour to our dinner destination, nestled on the side of the volcano overlooking the coast. Though it was cold and windy, we sat outside and had drinks while watching Stromboli erupt. Every time there was an explosion, the crowd would cheer in appreciation. As the evening sky got darker, we could see the incandescent lava and not just the ash parts of the explosion.

In preparation for climbing the volcano, waiver forms were signed and hard hats were issued. All the members of our tour group hiked to the 240-meter mark; you cannot go farther without a hard hat and guide. Five of us decided to carry on to the top, while the others went back to the pizzeria. Our climbing guide took us up the old route on the volcano that is rarely used anymore because it is the longest and the hardest. I only found this out the next day. The hike was indeed steep and difficult, and we soon left the lush vegetation behind. We even had to climb rock faces covered in ash and small volcanic rocks, or lapilli, while trying not to dislodge any onto the person below us.

We haled at the 750-meter level. You can only stay above this level for an hour before you must descend the volcano, and we didn’t want to get to the top until it was completely dark. While waiting, we had an excellent view into the volcano because we were at the same level as the first of the active vents. We could see rocks, ash and lava being shot into the air and then rolling and steamng down the mountain into the sea. It was obvious that this side of the volcano, called the Sciera del Fuoco (Stream of Fire), had experienced major landslides because there was no vegetation at all. We did, however, see mountain goats jumping from rock to rock. We also saw tour guide after tour group making its ascent to the top while it was still light.

When it got dark, our guide radioed in for permission to summit the volcano. Only 80 people can be above the 750-meter level at any one time for safety reasons; the emergency shelters on the mountain can only hold so many people in the event of a major eruption or lava flow. We put on our warmest clothing and our hard hats, turned on our head lamps, and began the push to the top, which still seemed very far away. I kept my eyes and head lamp pointed at my feet and had a nice conversation with another of our group, and sooner than expected we reached the top at approximately 950 meters. We had come up about 3,000 feet from where we started at sea level.
The end of the trail is actually above the currently active volcanic area, so we got to look down at the six active vents below us. I was blown away by what I saw. We could see four of the vents very clearly; they contained red- to white-hot lava that lit up the dark surroundings. The lava was boiling and, periodically, explosions of gas from the vents would launch lava into the dark night. It was beautiful and a little scary at the same time. Luckily for us, the mountain was mostly calm, but we did get to see a few good explosions and the blue sulfur dioxide gas clouds surrounding the vents. After about 25 freezing minutes at the top in pitch blackness, our guide informed us it was time to descend. When I turned around I saw another gorgeous sight; the lights on the coast of Italy and Sicily and an amazing star-filled sky.

The descent down the mountain was again via a route not normally taken. It started out on nice solid lava, but soon changed into 18 to 24 inches of ash and was very steep. It was like skiing down a black diamond ski run, and my thighs were burning from the exertion. This was not a hike for someone with weak knees, but it was definitely an experience of a lifetime for me.

The next day was mostly free time, but the group met for lunch at the home of a friend of Tom’s. She has run a boarding house for 33 years and she prepared an amazing meal for us, using mostly ingredients from her garden. It was special to be invited into the home of a local who was very friendly and told us a lot about living on Stromboli under an active volcano. This was another trip highlight that would probably not have happened if Heather and I had been traveling on our own.

The next morning, we were up early to catch a hydrofoil to the island of Vulcano. As soon as we landed, we could smell sulfur in the air, and we walked through hydrothermally altered rock cliffs and passed a warm mud pool on our way to their hotel. Our room was on the beach, facing a bay surrounded by volcanic islands and rocks. We were lucky that the main tourist season hadn’t started and it was not yet crowded.

After settling in, we were off to climb Vulcano, for which all volcanoes are named. This was another very steep climb, but all the members of our tour group made it to the top. There were many hot and steaming fumaroles belching sulfuric gases. We had to walk through the gas clouds, so we covered our faces with scarves for protection and started walking through the fog (or vog). What we found was truly amazing: numerous large, powerful, and extremely hot (>500°F) fumaroles surrounded by white sulfate crystal deposits and large pockets of sulfur in yellow crystalline and orange liquid forms. The wind blew the escaping gases between our feet and out over the ocean, so face protection was no longer necessary. As we pushed on to the top of the volcano, we had an incredible view of the ocean and the surrounding volcanic islands. At the top, we had a discussion with our two geologists about the formation of the breccia clasts lava bombs that were all around us, some as large as small cars.

The next day, we boarded a hydrofoil for a day trip to Lipari Island, which was home to the world’s largest pumice mine until the Aeolian Islands became a World Heritage site and the mining had to cease. Tom showed us the volcanic features of the island and took us to a place to collect obsidian. After our tour, we had time to wander around the port area and the island’s castle. Unfortunately, many things were closed, as this was Easter Sunday.

The trip back to Vulcano was by way of a small, teak tour boat. During the boat ride, we passed many colorful volcanic plugs sticking straight up out of the aqua-colored water; many had caves and arches in them. The scenery reminded me of the old movies about Jason and the Argonauts, and we half expected Poseidon to rise out of the sea. When we got back to Vulcano, Tom took us to a thermal area, only to find out that it had dried up since his last visit. That evening, we had a nice dinner of Vulcano’s specialties, including excellent seafood.

The next morning, we packed up to take a ferry to Sicily. The wind was blowing so hard the ferry had to delay its departure. We sat outside on the deck even though it was cold and windy, as this allowed nice views of the islands we had visited. We were even treated to a large explosion from Stromboli as a going-away gesture.

A bus met us when we docked in Sicily and we had a nice, comfortable drive around the eastern portion of the island on the way to Hotel Corsaro on the slopes of Mount Etna. Mainland Italy was visible from the bus as we passed the Straits of Messina. How the driver could maneuver the big bus on all these small, curvy roads was a wonder to see.

Mount Etna is considered by some to be one of the most dangerous volcanoes on earth. The higher we climbed, the windier,
colder and rainier it got. Soon, the verdant surroundings gave way to a harsh volcanic landscape. Finally, we reached our hotel, which was located in the middle of huge lava flows. We had very nice rooms with all the modern conveniences. I was told the hotel had been totally rebuilt after being destroyed by these same lava flows in the mid-1980s. That evening, our group met for drinks before dinner and watched a DVD about the eruptions of Mount Etna. The footage was so dramatic I had to buy a copy.

The next day, we were to hike around on Mount Etna, but the weather was bad and getting worse. After putting on every bit of warm and rain-proof gear we had, we took a ski gondola up the mountain. It is possible to ski over the rough lava terrain if the snow is deep enough—and if the mountain is not erupting, of course. We had planned to take huge four-wheel-drive off-road buses from the top of the gondola to the new summit craters, but they were not running because of the weather. Instead, we decided to hike back down the mountain through the snow and lava. On the way, when the wind blew the clouds and fog away, we saw glimpses of some of the more than 300 craters dotting the mountain. This was fun for Heather and me, as we are skiers and knew how to slide down the steep path. Others in our group had a very hard time getting down or even standing up on the steep volcanic slope. We were very wet when we got back.

The next morning, since the rain was not letting up, Tom arranged a bus trip down the mountain to see more volcanic sites. Our first stop was at a series of lava tubes in a lush birch forest. We climbed down into numerous tubes, inside which it was also raining, as a result of condensation. Our journey continued through numerous small villages to Alcantara Gorge, the site of a massive columnar basaltic formation. We walked down some 200 steps to the Alcantara River, which flows through the formations. Some of them are vertical and some are horizontal and jumbled. Tom told us these formations occurred when a lava flow from Mount Etna poured down a very narrow river channel, cooling quickly as it went.

From Alcantara, we drove to Taormina, a beautiful city built on the side of a very steep hill. At the uppermost end of the city is an ancient Greek theater. Taormina has lots of nice shops and cafes for tourists, and the road to and from the city is a marvel of engineering. Dinner was in the town of Nicolosi, where the cuisine centers around mushrooms of many varieties.

Next morning, we were back in our weather-resistant hiking gear and ready to attempt summiting Etna once again, even though the weather was still bad. After the gondola ride, we piled into the 4x4 buses and drove up to the end of the road. The mountaintop was totally socked in, although every now and then the wind...
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would clear the clouds away and we could see the summit. Unfortunately, we were not allowed to climb to the summit craters, but we walked to two others. It was interesting to find out that every eruption on Mount Etna creates a new crater, and the old craters never erupt again. At one point, our guide picked up some gravel along the snow-packed path that was almost too hot to hold, even with gloved hands.

Most of our group took the 4x4s and gondola back down the mountain, but the three Germans and I walked down. It was great fun, as we moved down the mountain very quickly. On the way, we found pieces of lava that resembled spun glass sitting on top of fresh snow. We surmised that these had been ejected from the volcano within the last few days. We later found out that Etna had experienced a minor eruption a week before we got there and another a week after we left. The mountain was quiet the whole time we were there.

After changing out of our wet clothes, we boarded a van for the trip off the mountain. The road from the hotel into Catania followed a lava flow that had buried major parts of Catania in 1680. After checking into our hotel, we took a walking tour and Tom showed us a castle from the 1200s. Lava from the 1680 eruption had flowed around it without causing major damage. We also saw some Roman ruins on our walk. We then had a huge dinner to celebrate the end of our tour and said our goodbyes to our new friends.

Heather and I thoroughly enjoyed this tour. Not only did it help with the transportation, language and cultural issues, but we got to know an international group of people who shared our interest in geology and volcanoes. We recommend this trip to everyone, with the following caveats:

1. The tour was advertised as "easy to moderate", which is probably true for persons under 40 years of age. If you are older and not in the best of shape, however, the rating should probably be "moderate to hard".

2. In many places, we were rushed and didn't get to see some things as thoroughly as we wanted to. The tour tried to cover a lot of ground in the two-week time frame, which is probably true of all tours.

3. Meal times are a bit irregular, worked in around the daily tour schedule. Dinners in Italy don't start until almost 9 p.m.

4. There was actually too much good food. Many of the meals were over the top in terms of quantity, and sometimes all we wanted was a green salad, which could be amazingly hard to find.

5. The trip was in early spring, so the weather didn't always cooperate. An early summer tour is also offered, but heat could be a factor in that part of the world.

Additional photos from our tour can be viewed at www.craigandheather.net/italy 2011vacation.html.