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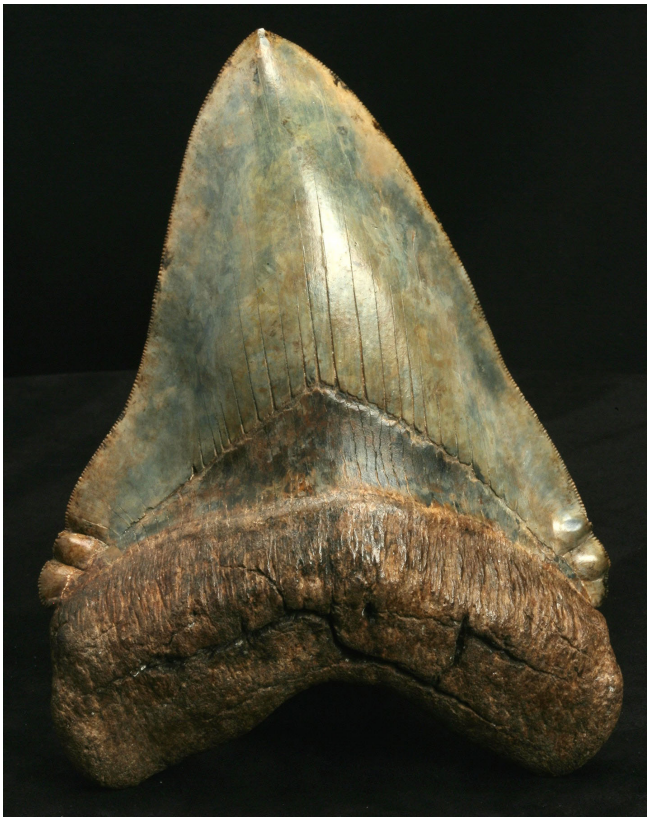
AMERICAN ROCKHOUND

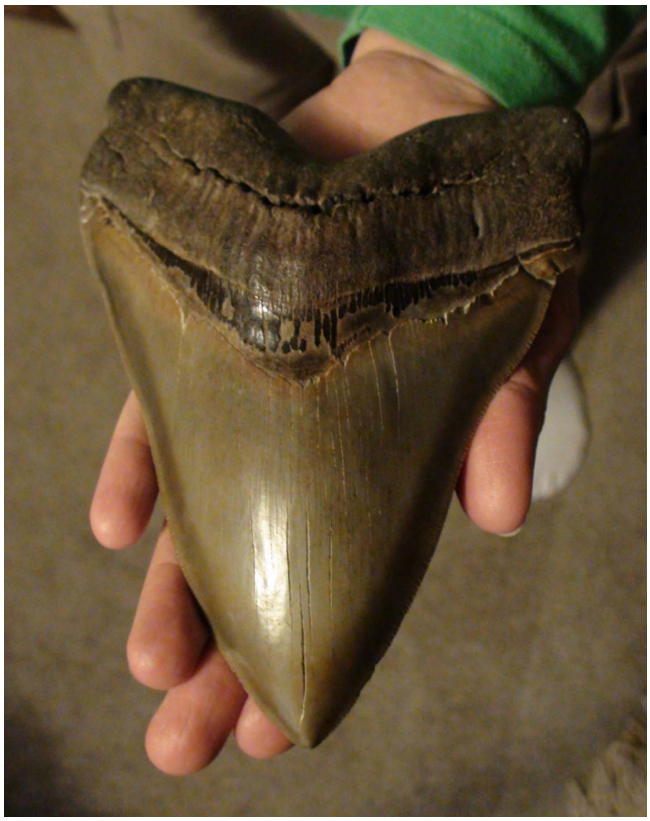
FEATURES

REGULAR COLUMNS

Top Right: This tooth was, at one time, the largest C. megalodon tooth in the world. It measures 7.102 inches long x 5.07 inches wide (18.04 cm x 12.88 cm). The tooth was found by diver Randy Owens, in a South Carolina river some years ago. The tooth was then sold to the late Vito Bertucci who commissioned professional restoration work to repair the missing enamel. Only the center enamel has been repaired. At the time I acquired this picture for my book 'Bone Hunter' in 2008, it was for sale for $25,000. Photo courtesy of www.megalodonteeth.com.

Bottom Right: Sandy holding one of the largest C. megalodon teeth ever found. Measuring 7 1/16" (17.94 cm). This tooth was found in a river in the southeastern, US by a local fossil diver. At the time of our visit, he had been offered $35,000 and had turned it down. He later sold it for $48,000!





the Native American Indians that inhabited the shores of the Cooper. Arrowheads, spear points, pottery and bone needles are just some of what can be found.

The Ashley Formation of the Cooper Group and the Chandler Bridge Formation represent the only Upper Oligocene units recognized in the Outer Coastal Plain of South Carolina. Vertebrate remains are common in the Chandler Bridge Formation, which contains a mix of phosphatic, muddy, calcareous, very fine grained sand that has been termed the 'Ashley Marl'. (*Geology of the Carolinas*, J. Wright Horton and Victor A. Zullo ed., Univ. of Tennessee Press, 1991). South Carolina is divided into five geologic zones or regions. These zones cross the state in a northeast to southwest direction, running parallel to each other. South Carolinas Coastal Plain extends from the Atlantic Ocean to the Upper and Lower Fall Lines. In the Coastal Zones, fossils are found below the fall line, the shoreline of ancient beaches as the ocean inundated (flooded) and receded across the state during our geologic prehistory. As a result, both land and marine fossils are commonly found in the Coastal Zones.

In the Charleston, South Carolina area, the fossil bearing sediments are called Cooper, Ashley and Chandler Bridge. The Chandler Bridge Formation contains the largest fossils. This layer is often exposed during new construction excavations or by the erosion of creeks and rivers. The majority of fossils found in the Cooper River are from the Cenozoic Era, which covers the Paleogene and Neogene periods. It's interesting to note that fossils from the Cambrian Period such as trilobites are also found in South Carolina. These trilobites are evidence of plate tectonics and South

Light reflecting off this crystal showing multiple stepped crystal faces. These stepped faces are caused by geologic and chemical interruptions during the crystal growth. 3" x 1⅞" (7.62 cm x 4.76 cm) Collected at the Sharpes Emerald Prospect, July, 2014.

crystallization in the smaller sections of the vein, but at the bottom end, they all seemed to terminate in large, flattened crystals. The crystals are not real pretty, but they are unusual. They have sides that could not grow as they were pinched in the vein, the terminations have maybe 3 – 5 faces showing, very deep dark, almost black color and translucent. They were trying to grow, but ran out of space. One of the largest sections weighs 19 pounds. If this crystal had found room to grow, it would have been huge! We call these crystals 'pancake smoky quartz'. We plan to explore this area more and go deeper. Our thinking is the veins may eventually pocket out, if the flattened

One of the first smoky quartz crystals found during our dig. We found many very dark, almost black smoky crystals, some were transparent and facet grade. 2½" x 1¾" x 1" (6.35 cm x 4.45 cm x 2.54 cm).

crystals we have already found are any indication of what may be in a pocket, we are going to have some monster smokies. It would not surprise me to see that at any location in or near Hiddenite. Jamie Hill dug up a 298 pound quartz crystal many years ago in the area, so it could happen here.

We also discovered crystals in the veins that had been broken then separated from their matrix or other crystal sections, we recovered these crystals within several inches of each other. Most showed signs of self healing (see article in this issue on crystallographic continuity). This is an indication that there was some geologic disturbance at the mine in the past. Several crystals were recovered that had numerous stepped faces. These stepped faces occur when the crystal is subjected to geologic and chemical interruptions. These interruptions can happen multiple times while the crystal is forming. As the sides continue to grow, they form tiny terminations that are oriented in the same direction as the main termination. When the crystal is done growing, the side terminations form a skeletal 'girdle' around the crystal giving it a 'stepped' appearance. The more the growth is interrupted, the more step faces will be present.

The muscovite mica is some of the finest I have seen at any of the mines in North Carolina.

worked at part time sales of health and life insurance in South Carolina and parts of Western North Carolina.

John is still making the rounds, he attends almost all our club digs and shows and never misses our yearly Western North Carolina Rockhound Roundup. He always has a pocket full or box full of newly discovered crystals to share with the other members. John is also a part time caretaker at the Jackson Crossroads Amethyst Mine in Tignall, Georgia. If you visit the site on a Saturday, you may get a chance to meet him there.

In the past few years, John and I have been trying to figure out a way to open a mineral museum in the Asheville, North Carolina area. We want to feature minerals from the southeast with special emphasis placed on the gems and minerals of North and South Carolina. Our club members could easily fill a museum with all that we have collected over the years. Of course there will be a special display case in the museum filled with John's specimens. What makes a rockhound a rockhound legend? Look at the life and times of John Deney, and you will know why he is called

Fairburn agate collected and polished by John Deney. Collected north of Crawford, NE. 3⅜" x 3¼" x ⅞" (8.57 cm x 8.26 cm x 2.22 cm).

Black agate collected and polished by John Deney. Collected near Scenic, SD. 3½" x 2" x 1⅜" (8.9 cm x 5.08 cm x 3.49 cm).

John preparing to descend down to examine the entrance of an old mine shaft leading into to an abandoned amethyst mine in North Carolina, 2005.

Banded agate (some call it onyx) collected and polished by John Deney. From Gap Creek, SC. Agate face measures: 1" x ¾" (2.54 cm x 1.91 cm).

SPRUCE RIDGE
A CRYSTAL HUNTING ADVENTURE IN WASHINGTON STATE

Jim Landon

There are many localities in the United States where quartz crystals can be found. The open pit mines in the vicinity of Hot Springs, Arkansas have yielded high quality specimens for many years. Others produce smoky quartz or amethyst, but fewer contain other mineral species along with the quartz. One such place that does contain other minerals in association with water clear gemmy quartz crystals is called Spruce Ridge which lies on the west slope of the Washington Cascade Mountains near the town of North Bend east of Seattle, Washington. The Spruce claim which was developed by Northwest mineral collector and dealer Bob Jackson is now owned by Bob and a consortium of individuals who have purchased shares of the property from him and now have exclusive rights to mine there.

As the discovery story goes, Bob first stumbled on the deposit at Spruce Ridge while working on his masters degree in geology. He ran into a group of professional geologists who were doing

The materials needed to build this cabin at the mine were flown in by helicopter or hand carried up the trail from the Forest Service road. Jim Landon photo.

Bob's caretaker Andy is standing on the mining bench. Note the sheer drop-off to his left and the many open vugs to his right in the cliff face. Jim Landon photo.