

SCHLOSSER LAPIDARY ROCK, MINERAL, AND FOSSIL COLLECTION DONATED TO THE NORTH DAKOTA GEOLOGICAL SURVEY

By John W. Hoganson

Jacob and Catherine Schlosser's life-long passion was rock hounding and creating lapidary objects from rocks. They were long-time residents of Mandan, North Dakota. Jake passed away in 1996 and Catherine followed in February, 2007. Ray Schlosser, Jake's brother, donated much of Jake and Catherine's rock, mineral, and fossil collection to the North Dakota Geological Survey as a memorial. The specimens have been incorporated into the North Dakota State Fossil, Rock, and Mineral collection at the North Dakota Heritage Center in Bismarck. Many will be displayed in the Heritage Center later this summer.



Jake and Catherine Schlosser.

I was overwhelmed when I first saw the collection displayed in several rooms in the Schlosser Mandan home this past March. I was particularly impressed by the quality and number of lapidary spheres, beautiful cut and polished agates, and specimens of *Teredo*-bored petrified wood, North Dakota's State Fossil. Like most avid rock collectors, the Schlosser's would travel around the county collecting rocks and buying, selling, and trading rocks at rock shows and swap meets. Consequently, their collection consists of specimens from around the world. They were active members of the Central Dakota Gem and Mineral Society and the Rocky Mountain Federation of Mineralogical Societies for many years and were noted for their lapidary sphere and agate collection. They often displayed parts of their collections at the annual Central Dakota Gem and Mineral show in Mandan.



Central Dakota Gem and Mineral Society certificate.

Apparently the Schlossers were particularly interested in agate and *Teredo*-bored petrified wood. According to Ray Schlosser, Jake and Catherine had a relative in eastern Montana where they collected literally hundreds of pounds of Montana Agates. The cut and polished agates all have a different character and are natural art pieces. I am particularly interested in the many cut and polished specimens of *Teredo*-bored petrified wood that they collected mostly in Morton County. *Teredo*-bored petrified wood is most often found in the Paleocene (about 60 million years old) Cannonball Formation. At that time, water-logged drift wood along the shore of the Cannonball Sea was bored into by small clams (*Nototeredo*) that created calcium carbonate-lined tubes in the driftwood. After millions of years the driftwood and entombed clams became fossilized. These clams are called "shipworms" and today still create problems boring into wooden piers and pilings. *Teredo*-bored petrified wood is prized by collectors and is becoming scarce. The Schlosser specimens are an important addition to the North Dakota State Fossil Collection.



Cut and polished agates.



Teredo bored petrified wood (18 inches in diameter).



Diagram of *Nototeredo*.

The lapidary spheres donated to the state collection, ranging from 1.5 to 5.5 inches in diameter, are made from rocks from around the world, including some made of *Teredo*-bored petrified wood and other North Dakota petrified wood. The most exotic of the spheres are ones made from Labradorite from Labrador, Rainforest Jasper from Australia, *Turritella* (Eocene age snails) Agate from Wyoming, Zebra Marble from Utah, Llanoite from Texas, Picasso Marble from Utah, and Mary Ellen Jasper from Minnesota. Spheres were also made of Paleozoic colonial corals, petrified palm wood, Knife River Flint, Mahogany Obsidian, Bauxite, Orbicular Jasper, Septaria, and many other materials.

The process for making lapidary spheres is complicated and time consuming. Raw rock is initially faceted with a rock saw to form a roughly spherical shape. The faceted rock is then placed into a sphere making machine. Abrasive grit is added and the rock is rotated in the machine to eventually create a perfect, polished sphere.



Jake and Catherine making lapidary spheres.



Top row (left to right): Orbicular Jasper, Llanoite from Texas, Mahogany Obsidian; Middle Row (left to right): Bauxite, *Teredo* bored petrified wood from North Dakota, Zebra Marble from Utah; Bottom Row (left to right): Mary Ellen Jasper from Minnesota, Rainforest Jasper from Australia, Septeria from North Dakota.

The Schlossers also spent untold hours creating other lapidary art pieces including necklace pendants, earrings, belt buckles, tie tacks, bolo ties, butterflies, rock “flower” arrangements, and pen holders. The pendants are mostly made of agate and cut into many shapes: hearts, teardrops, and crosses. The collection also contains many cabochons (polished, uncut stones) of various lithologies and shapes.



Jasper butterfly.



Agate necklaces.



Agate butterfly.

I am often asked the worth of fossil specimens in the North Dakota State Fossil Collection and the rocks and minerals in the rock and mineral collection. My answer to that question is that the specimens are priceless. So it is with the Schlosser collection. I would like to take this opportunity to thank the Schlosser family for donating this remarkable collection to the State for enjoyment of the many visitors to the North Dakota Heritage Center. Jake Schlosser made it clear that he wanted the collection donated to the state, and we are pleased to take care of it as a memorial to the Schlosser family.



Pen holder made of *Teredo* bored petrified wood.



Belt buckles. Top row (left to right): Petrified palm wood, *Turritella* agate, Orbicular jasper; Bottom row (left to right): Jasper, Agate, *Teredo* bored petrified wood.



“Flower” arrangement “flowers” made of turquoise.