

Artifact of the Month

Tribal Historic Preservation Office

October 2018

Found on the Brighton Reservation adjacent to an old military trail, October's Artifact of the Month has definitely had some fun in the Florida sun! This type of solarized glass, also known as "desert glass" or "amethyst glass" is caused by the manganese dioxide within the glass reacting to UV light. Originally, the glass was colorless, as manganese dioxide has long been used to make high quality colorless glass. In the United States, the demand for colorless glass spiked around 1880, and the majority of amethyst glass was produced between 1880 and 1915.



Manganese dioxide has a neutralizing effect on blue/green impurities that exist in natural glass materials, in effect 'cancelling out' those impurities and producing a colorless final product. When discarded and left out in the sun, the manganese dioxide reacts to the UV rays and turns a pink/purple shade. The intensity and darkness of the color depends on amount of time the glass is exposed to sunlight, as well as the amount of decolorizing agent that was used in the initial production. A glass bottle that had a lot of manganese dioxide in it, that had been out in the sun for a long time would present a deep purple shade today. These thick glass shards also have irregular bubbling and post bottom mold seams on the base, another indication of a late 19th century, early 20th century date.

