

*"What is Glass Bead Disease?: A study of the Fort Union
Trade Bead Collection,"*
Deanna O'Donnell, Hamline University



6:00 PM, THURSDAY, FEBRUARY 9, 2017
**JOHN B. DAVIS LECTURE HALL; RUTH STRICKER DAYTON CAMPUS
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Glass Bead Diseases is an irreversible, degradation process that leaves the surface of the glass with microfractures, pitting, and a white 'crust'. The number of studies that have explored the cause of glass disease in beads over the past five decades is small. Conservators have observed acceleration in the degradation for beads attached to corrosive natural materials. Blue beads are especially susceptible, suggesting the colorant plays a role in the process. Fort Union Trading Post has a unique collection of Native American glass trade beads, both in its size and history. The beads have not been used, so their condition can be attributed to natural weathering. In July 2015, 81 beads from the Fort Union collection were analyzed by optical microscopy and portable X-ray Fluorescence Spectroscopy. The majority of the beads were blue hollow cane beads that varied in condition. This pilot study aimed to identify chemical trends within the glass composition that were correlated to condition to potentially identify a chemical fingerprint conservators and curators could use to predict vulnerable glass artifacts. In this talk, Dr. O'Donnell will present their preliminary findings.



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