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A Virtual Window on the Dawn of Indiana Archaeology: Digitizing the Dolan Collection

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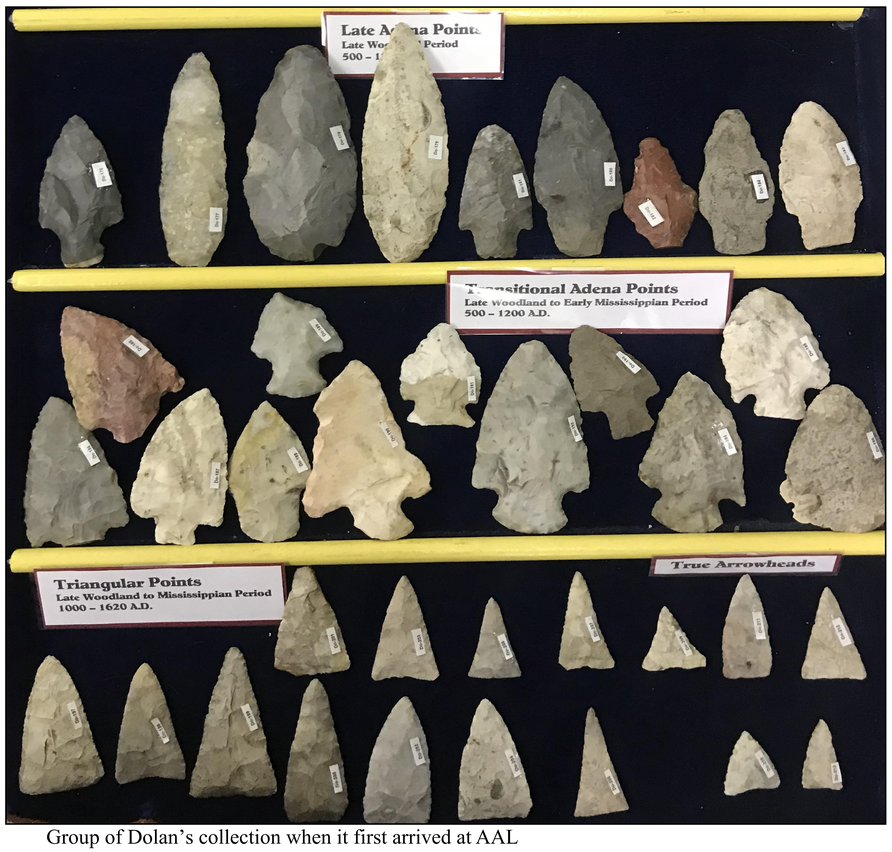
Abstract

It is increasingly recognized that archaeology needs detailed information about the material contained in private collections. This material can also help us to engage the broader public in archaeology in novel ways. In collaboration with the Syracuse-Wawasee Historical Museum, Inc. (SWHM), the AAL is digitally recording the JP Dolan collection. Mr. Dolan was a friend of Eli Lilly and helped to spark Lilly's early interest in Indiana archaeology, and to introduce Lilly to several collectors that were instrumental in furthering Lilly's interest in these materials. We create a catalog, record 2D images of the full collection, and 3D scans of a select sample of the collection. This will enhance visitor experience for the SWHM's visitors and promulgate information about local and regional archaeology through multiple online venues. Additionally, this analysis is revealing new insights into the interaction patterns throughout time in the Syracuse area and other prehistoric social systems.



Group of Dolan's collection when it first arrived at AAL

Introduction

Since 1987, the SWHM has been fostering an appreciation for Syracuse and American history among the general public. This includes JP Dolan's collection of projectile points and other ground stone and chipped stone tools from the Syracuse, Indiana area. He began collecting in 1873 when he arrived in Syracuse Indiana. He continued to collect most of his life, but his collection was first publicly shared in 1910 when he began to take projectile points to the Syracuse Library. This is where his collection caught Eli Lilly's eye, and later lead Lilly to come to Dolan's home to view his "cabinet of artifacts". Once Dolan passed away his collection was donated to SWHM.

The Board of Directors of the Syracuse-Wawasee Historical Museum believe they have been entrusted with a very important and prominent piece of Indiana heritage and need to properly and correctly preserve the Dolan Collection which served such a prominent role in developing Eli Lilly's interest in the "Prehistory of Indiana." Many of the artifacts are in groupings with little or no information and descriptions associated with proper timeframe, cultural period, utilization purpose, etc. While the collection is quantitatively extensive and impressive, it transfers little intellectual information to the observer. The SWHM is currently merely serving as a warehouse for such an important piece of Indiana prehistory and history.

Methods

1) Create 2D scans of all points.
2) Label (e.g., Do-001) each artifact with archival paper and B-72.
3) Record all attributes in the SWHM collection database, including: ID number, measurements (length, width, thickness, and weight), chert type, projectile type, and completeness. See example below.
4) Identify artifact type and time period using standard references (e.g., Justice 1985)
5) Identify chert type through microscopic comparison to known chert types.
6)A sample of the points were 3D scanned with a NextEngine 3D scanner.
7) Upload 3D models to SketchFab for public access.

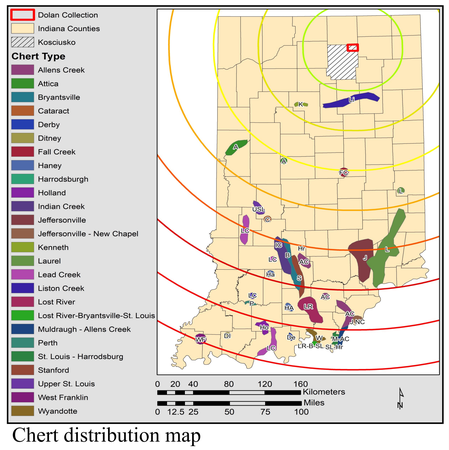
FS	Primary	Secondary	Artifact Type	Artifact Type 2	Archaeological	Length	Width	Thickness	Photo Reference
Do-1	Prehistoric	Stone, Liston Creek	Hafted Biface, Finished	Madison	Late Woodland	24.7	18.4	4.0	Dolan_Tray1_1_R3_3
Do-2	Prehistoric	Stone, Liston Creek	Hafted Biface, Finished	Madison	Late Woodland	27.0	17.3	4.8	Dolan_Tray1_1_R3_4

Example of Access database fields and data

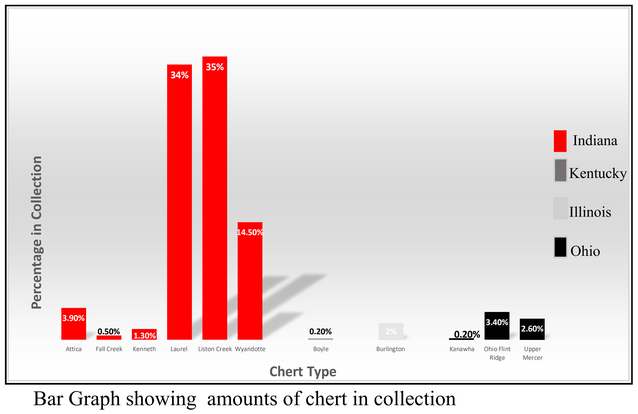
Results

All these points were found near Syracuse Indiana, in northern Kosciusko County. Thus, we expected to find mostly northern Indiana chert types such as Liston creek, Kenneth, Fall Creek, and Attica, with a small proportion of southern Indiana types such as Laurel and Wyandotte. A total of 89.2% of the collection was made of one of these 6 chert types. However, a total of 6.2% of the chert is imported from Ohio and 2% is from Illinois.

Gray cherts, like Wyandotte, have been heavily tied regional ceremonial trade networks from the Late Archaic through the Middle Woodland. American Indians in what is now northern Indiana participated in many of the same networks as their counterparts in the Ohio and Illinois valleys. These shared networks and cultural practices include the same use of gray cherts as cache blades and turkey-tails. For example, Cache blades and turkey-tails used in ceremonial deposits are typically made of Wyandotte, this pattern of cache blades being made out of Wyandotte is also found in Dolan's collection.



Chert distribution map



Bar Graph showing amounts of chert in collection

Upper Mercer

Nearly 50% of the cache blades in this collection are made of Wyandotte and the two turkey tails are also made of Wyandotte. This shows that many different regions are using the same material for the same purposes, and the occupants of the Syracuse area were participating in the same inter-regional cultural and economic systems.

Discussion

This extensive collection of points allows us to gain a greater understanding of chert use in northern Indiana. Although all the points in the collection were found in Syracuse a large quantity of them are made of cherts not indigenous to that area. Even many of the Indiana cherts in the collection, such as Wyandotte, are found in southern Indiana. There are also cherts fount in Ohio, Illinois, and Kentucky, indicating extensive movement of people and/or goods.

The participation of the inhabitants of the region in extra-regional trade networks and cultural trends is also seen by the amount of cache blades made of Wyandotte. Thus the Dolan collection provides an accurate picture of the general trends in cultural and economic connections in northern Indiana through time.

Thebes from Dolan's collection

Conclusion

As the collection was first displayed it transferred little intellectual information to the observer. With more extensive research done by the AAL we can help SWHM better display Dolan's collection with more information. SWHM is currently working on creating story boards to allow an observer to gain more knowledge.

Dana Northam (left) and Matt Purtill (right) returning Dolan's collection to the SWHM

Student Involvement

This has been a student lead project with Drs. Matthew Purtill and Kevin Nolan supervising. Everything from the Access database to identifying the points was done by AAL's student staff. Hunter Davis, Senior, and Dana Northam, Sophomore, worked primarily on this project. As a result of this project we have gained valuable information, experience, and skills to refine and support our career preparation.

Acknowledgement

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