Good day,

My name is Hal Butler and I am co-owner of the "Jones Heritage Artifacts: Steam Bent Hockey Sticks".

I am briefly relaying the research that I have uncovered since I began the project over four years ago. ALL our documentation in complete form can be found on this website <u>https://rarehockeysticks.com/</u>.

- Presently, we had two Archeologists look at the sticks in their laboratory in Newfoundland.
 - Dr. Peter Whitridge Professor & Head of the Memorial University of Newfoundland Archaeology Department (interest in historic and prehistoric sports)
 - o Dr. Vaughan Grimes Bioarchaeologist & Archaeological Scientist Memorial University of Newfoundland Archaeology Department
- Just completed a CT Scan in a hospital environment in Saint John New Brunswick. The data was interpreted by
 - o Dr. Andrew Nelson Professor Archaeology / Bioarchaeology Museum of Ontario Archaeology, University of Western Ontario London

• Shantz (Jones) Patriarch. Germany - Pennsylvania

The Schantz-Jones family Johannes Schantz (anglicized to Charles Jones) patriarch was born in Gondelsheim, Baden, Germany in 1721. **He and his family sailed to the US on the "Lydia" in 1749**. Their names are on passenger manifest under Capt. John Randolph of Rotterdam. The family **arrived in the US in Philadelphia, October 9th, 1749**. Shortly thereafter, the family with others moved to a place that was eventually called Germantown in the state of Pennsylvania and stayed there to pay their passage from Germany.

• Germantown, Pennsylvania - New Brunswick, Canada

The families were given land by the Benjamin Franklin / George Washington Land Development Company to develop in the area that became known as "Monckton" after the great Colonel Monckton. From Germantown, they traveled on a 50-ton sloop called the "Lovey" under Captain Nathaniel Shiverick in 1766. As in most cultures, if the ship wasn't returning to its origin, it would be disassembled and used as supplies. Was it? The wood of one of our Vintage Hockey Sticks has been radiocarbon dated to a range of 1728 – 1785 with median probability of year 1764. That means the tree / wood died two years before the ship "Lovey" sailed to this location. The players of this new game called "hockey" who could not "write" would carve an "x" into their stick at certain distances from the end of the stick. This was done for identification of their stick from the other players in case during play, the sticks became intermingled with other players. The "x" is obvious on both the "Articles of Agreement" of 1766 and on the "hockey stick" itself. "Abner Jones was a shipbuilder; carried on a lumber manufactory and operated a hotel...built the 590 ton barque Hurricane, launched 1863." (built nine ships in total) (This ship was built in Moncton by Abner, owned by Oliver Jones and sold to owners in Liverpool, England in 1864.)

From Resurgo: The History of Moncton vol. 1, by Alexander Pincombe and Edward Larracey

- A Genealogy of the family from arrival to Stewart Jones
 - Frederick A Stewart Jones 1901 1980 Elizabeth J Martin Spouse 1898
 1972 STICKS LAST JONES FAMILY OWNER
 - Frederick C Jones 1864 1962 (father to Fred Stewart) Emma Amelia
 Beer 1870 1925 Spouse
 - Abner Jones 1812 1886 Shipbuilder (father to Frederick C, grandfather to Fred Stewart) Anna Maria Oulton 1842 – 1880 Second Spouse to Abner
 - Charles Jones 1781 1850 (father to Abner) Deborah Somers 1787 1871 Spouse
 - Henry Jones 1758 1840 (father to Charles) Ann Christiana Somers 1763 – 1837 Spouse
 - Charles Jones 1721 1776 (father to Henry) Catherine Jones 1737 1797 Spouse Traveled to new world with family
 - Johannes Schantz 1676 1746 (father to Charles) Anna Margaretha
 Voltz 1683 1749 Spouse
- From Germany to Pennsylvania to Moncton (Monkton) shows hockey in some form was played according to researched paintings.
- Radiocarbon dating completed by University of California, Irvine
 - Radiocarbon Dating reports that the wood of "Other Stick" has an 80.3% chance of the date being before 1812 with 50.5% chance of 1728 1785 with Median Probability of 1764.
 - Radiocarbon Dating reports that the wood of the "Jones Stick" has an 86.3% chance of the date being before 1898 with 58.7% chance of 1809 1898 with Median Probability of 1839.
 - o Further analysis being completed.
- Wood identification report with raw emails by Dr. Adam Czank Dendrochronologist
- Analysis of metallic plaque and nails holding it in place by Dr. Christa Brosseau Associate Professor Canada Research Chair in Sustainable Chemistry and Materials Department of Chemistry Saint Mary's University Halifax, NS, Canada .
 - Metal sample from nail: The nail is made of iron, with a very low sulfur content. There is a small amount of Mn present (~0.26%). These findings are suggestive of a post 1840's wrought iron. No additional elements were noted.
 - Metal sample from plaque: The plaque is made of aluminum and is of very high purity. In addition, the carbon content is high. As such, the plaque represents a cast-aluminum, not available until the late 1800's,

at the earliest. Hence, the plaque in this case is likely more recent than the nails, the nails being post 1840's.

- Isotopic Analysis and Vegetation Band by Dr. Adam Czank Dendrochronologist
 - Explaining that the wood could have come from any of these three places the "Schantz / Jones" lived: Germany, Pennsylvania or Monckton areas.
- Infrared Spectra

We believe that we have established the provenance of these "Heritage Artifacts".

Hal Butler

Dollard Lirette

Owners Jones Heritage Artifacts Hockey Sticks