Journal of Archaeological Science 40 (2013) 1250–1259

Contents lists available at SciVerse ScienceDirect

Journal of Archaeological Science

journal homepage: http://www.elsevier.com/locate/jas

17th century Huron village life: insights from the copper-based metals of the Ball site, southern Ontario, Canada

Kostalena Michelaki [a,*], Ronald G.V. Hancock [b,c,**], Gary Warrick [d], Dean H. Knight [e]

[a] School of Human Evolution and Social Change, Arizona State University, 900 S. Cady Mall, Tempe, AZ 85287-2402, USA
[b] Medical Physics and Applied Radiation Sciences, McMaster University, 1280 Main St. West, Hamilton, Ontario L8S 4K1, Canada
[c] Department of Anthropology, McMaster University, 1280 Main St. West, Hamilton, Ontario L8S 4L9, Canada
[d] Contemporary Studies and Indigenous Studies, Wilfrid Laurier University, RAC-East, 73 George St., Brantford, Ontario N3T 2Y3, Canada
[e] Department of Anthropology, Wilfrid Laurier University, Waterloo, Ontario N2L 3C5, Canada

ARTICLE INFO

Article history:
Received 19 June 2012
Received in revised form
23 August 2012
Accepted 29 August 2012

Keywords:
European copper
Brass
17th century Ontario
Huron
Wendat
Southern Ontario
INAA
PCA
Bivariate plots

ABSTRACT

Copper-based metal artifacts from the Ball site, a late 16th – early 17th century Huron (Wendat) village in southern Ontario that doubled in size during its estimated 20-year existence, were analysed by INAA. The goal was to assess the number of kettles that had reached the village, explore the chronology of their arrival and examine patterns in their discard within the site. Our results suggest that about two to three dozen European copper, red brass, and yellow brass kettles may have reached the village during its occupation; that copper kettles may have been traded to the inhabitants of the village before brass kettles; that the new inhabitants may have brought some kettles with them; and that differences in the discarding of copper and brass pieces inside and outside longhouses indicate that yellow brass was possibly of lower value than red copper.

1. Introduction and historical context

The Ball site (Knight, 1987) is located approximately 10 km west of the town of Orillia, Ontario, in an area known by early French traders as Huronia. It is approximately 13 km south of the Georgian Bay and 96 km north of Toronto, at the northwest corner of Lake Ontario. Twenty-five field seasons were spent exposing the village, which consisted of 72 longhouses and two separate palisades (Fig. 1). Archaeological evidence indicated that the original village probably began in the northwest corner with 34 longhouses, and covered approximately 1.6 ha (4.1 acres). House wall post densities suggest that the site was occupied for about 20 years (Warrick, 1988). In the latter ten years of its life, the village expanded, due to an influx of people, from the original size of 1.6 ha to 3.4 ha, adding 38 longhouses (Fitzgerald et al., 1995). Nothing in the recovered native ceramics, lithics, and smoking pipes, indicated that the newcomers were very different from the original inhabitants (Knight and Bain, 1993). According to seriation dating of glass trade beads, the Ball site was occupied between 1585 and 1609 C.E. (Fitzgerald et al., 1995).

The village that we now call 'the Ball site' was most certainly occupied by members of the *Arendarhonon* (Rock Nation), the easternmost nation of the Wendat confederacy in the 17th century. According to French historical accounts, the *Arendarhonon* joined the Wendat confederacy around 1590 C.E. and formerly lived in the Balsam Lake-Trent Valley area, east of Lake Simcoe. A number of 16th century Wendat sites in the Trent Valley are interpreted as ancestral *Arendarhonon* (Trigger, 1976: 156). One of the Trent Valley sites, the Benson site, occupied from about 1560 to 1580s C.E. is an ideal candidate for the founding community of the Ball site, being 1.5 ha in size and containing 23 longhouses (Ramsden, 2009). The original Ball village was 1.6 ha and had 28 longhouses; more, yet shorter, houses than the Benson village. If Benson is in fact the parent community of Ball, the difference in the quantity and type of European trade goods at Benson and Ball is quite remarkable. The

* Corresponding author. Tel.: +1 480 965 6170; fax: +1 480 965 7671.
** Corresponding author. Medical Physics and Applied Radiation Sciences, McMaster University, 1280 Main St. West, Hamilton, Ontario L8S 4K1, Canada. Tel.: +1 416 487 7890.
E-mail addresses: kmichela@asu.edu (K. Michelaki), ronhancock@ca.inter.net (R.G.V. Hancock).

0305-4403/$ – see front matter © 2012 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.jas.2012.08.048

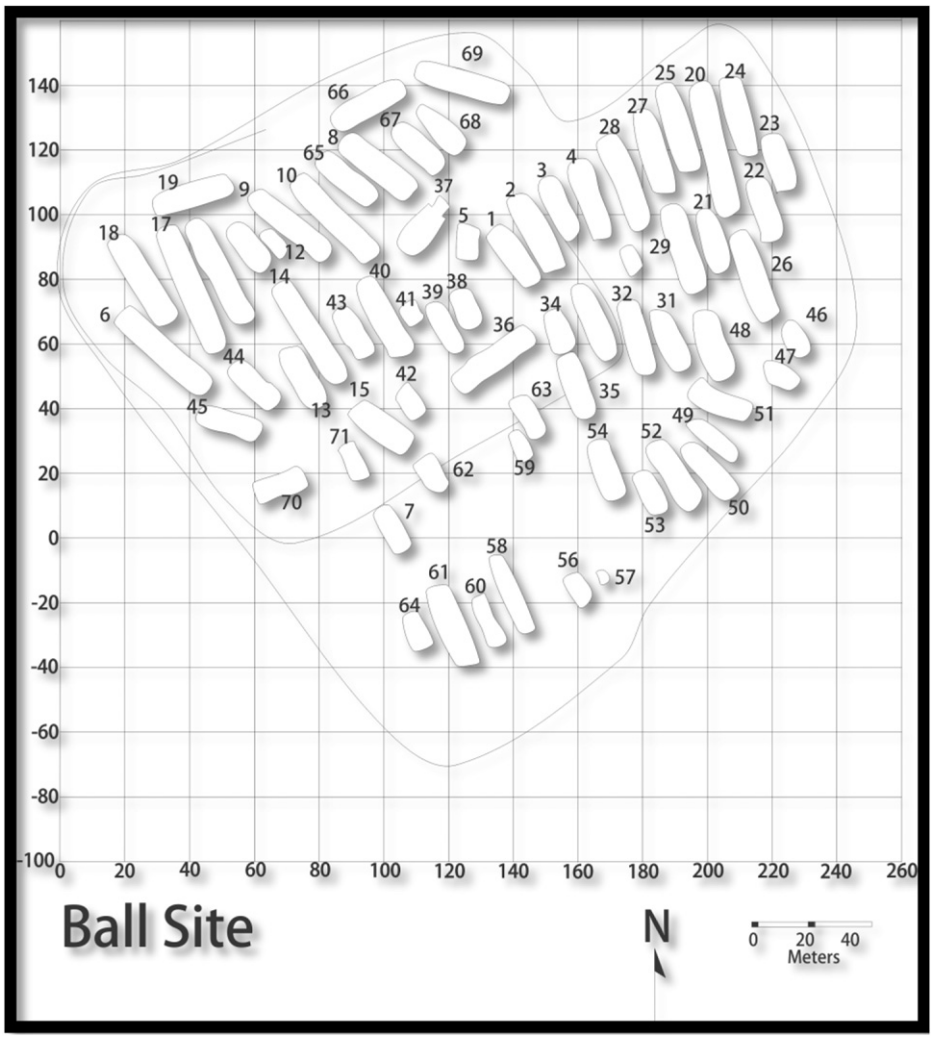

Fig. 1. Layout of the Ball site, southern Ontario (map courtesy of D.H. Knight).

Benson site yielded only one iron awl, one smelted copper bead, one brass bead, and one copper rivet from a kettle (Fitzgerald and Ramsden, 1988; Ramsden, 2009). The Ball site produced over a thousand European items – including glass beads, copper and brass tools, ornaments, and scrap, and iron knives, axes, awls and other items (Anselmi, 2004; Martelle, 2002: 678). While less than 25% of the Benson site and close to 100% of the Ball site was excavated, the relative scarcity of European trade items at Benson is striking. The 1.8 ha expansion of the Ball village ca. 1600 C.E. probably represents the arrival of an entire community from the Trent Valley. The Trent site, a 3.0 ha village in the Trent Valley dating to about 1580–1600 C.E. and containing some glass beads and other European items, is a possible contributing community. The Ball village population is estimated at 2200 people, given a hearth density of 63 hearths/ha and ten people per hearth (Warrick, 2008: 132). Almost 75% of the *Arendarhonon* (Rock Nation) would have lived there.

Numerous artifacts of European origin, including glass beads, iron pieces, and copper or brass pieces, were recovered from the site. Some of the metal objects were complete tools, such as brass/copper projectile points or iron axes, although the majority consisted of *debitage* from traded copper and brass kettles.

Relying on historical documents and archaeological materials from sites in Quebec and southern Ontario, Turgeon (1997, 1999) and Fitzgerald (1990) have concluded that there was no formal fur trade in northeastern North America prior to 1580 C.E. Aboriginal people in the Gulf of St. Lawrence were given a few axes, knives, and copper trinkets by cod fishermen and whalers, mostly Basque and French, in exchange for luxury furs (i.e. not beaver pelts). Only a small number of European items, mostly tiny scraps of copper and fragments of iron, would have filtered into Wendat villages and burials in south-central Ontario between 1540 and 1580 C.E. (Fitzgerald, 1990: 546) as ceremonial gifts. The earliest evidence of European artifacts in Wendat and Neutral sites in southern Ontario dates after 1540 C.E. (Anselmi, 2004; Fitzgerald, 1990). Archaeological work on mid-16th century Wendat and Neutral village and burial sites has yielded only one or two items of European copper, brass, or iron per site (Fitzgerald, 1990: 118–119). After 1580, European trade materials flowed up the St. Lawrence River valley and further inland into Ontario as a result of the beginning of professional fur trading for beaver pelts to feed the felt hat fashion craze in Europe (Turgeon, 1999; Fitzgerald, 1990: 77–81).

Between 1580 and 1600, there is a noticeable increase in the quantity and diversity of European trade goods (i.e. glass beads, copper and brass rolled tubular beads and scrap, and iron knife and axe fragments) in Wendat villages and burials. At the Ball site, most of the European items would have arrived probably as a result of professional Basque and Breton traders active in the St. Lawrence