Event review: The Archaeology Centre Chert Crawl and Knap-in (Ontario, Canada)

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Archaeologists from quite a few departments in the University of Toronto and from the Greater Toronto Area archaeological community use the Archaeology Centre as a hub for collaboration and for organizing member-led group activities. In April 2017, the Lithics Interest Group hosted its annual Knap-In and Goat Roast (Fox 2015), this year augmented by a trip to the nearby Niagara Escarpment for chert to knap. Beginning with this new chert sourcing expedition, through flintknapping, food processing, and finally cooking via delightful communal barbecue the Lithics Interest Group members were able to get a sense of a few of the stages a lithic artifact goes through as it may be used before its discard into the archaeological record.

In Southern Ontario, Onondaga chert is the most accessible and available form of knappable material. Skilled flintknappers have used Onondaga chert from the Niagara Escarpment to craft sturdy stone tools for millennia. On a particularly drizzly Saturday afternoon in late April, Doug Todd, a lithic analysis expert from Southern Ontario, led our plucky group of chert enthusiasts to areas along the escarpment where the Onondaga chert was known to protrude from the limestone bedrock. Todd chose locations where the group could learn about the escarpment’s geological and natural history as well as collect chert for knapping practice at the knap-in.

The group’s first stop was the Wainfleet Wetlands Conservation Area where Todd narrated a history of this chert exposure following glacial retreat. The conservation area is a modern quarry where the glacial striations are visible on the surface of the exposed deposit. Following a small hike to the quarry’s edge, Todd then brought the group to a nearby modern road cut. This exposure is an exhausted source of knappable stone but proved to be an excellent way for Todd to point out the limestone parent deposits that hold Onondaga and Bois Blanc cherts. The group was able to sample some teaching specimens for the Archaeology Centre’s small but growing raw material comparative collection. Next, Todd brought the group to a shoreline deposit along the beach of Lake Erie where the exposed chert lies on the surface in large slabs, similar to the conservation area (Figure 1).

Though these locations served as an excellent backdrop for a geological tour of the escarpment, there was not much chert for the group to collect save for the teaching samples. Local knappers often scour new exposures and loosened deposits quickly following availability. Fortunately one of these new exposures was nearby in the form of backfill from...
recent construction development. Onondaga from the newly surfaced bedrock ensured some large tabular blocks were easily available in the dirt, a source discovered using modern industrial equipment. Enduring a bit more rain, the group filled a few boxes and left pleased, with enough chert for the participants of the knap-in and a lot of future practice.

Figure 1. Lake Erie’s northeastern shoreline chert deposits. (Photo by Andrew Riddle 2017.)

Later that week and equipped with this solid collection of Onondaga chert, flintknappers from the university community gathered in the Archaeology Lab for the annual knap-in (Figure 2). This year’s primary attendees were undergraduates eager to put their classroom experience to practical use as well as experienced graduate students honing their skills on the robust Onondaga chert. Many knappers, green and seasoned alike, were surprised
by the oily smell generated when knapping Onondaga. Despite the prevalence for fractures in the chert caused by the industrial equipment’s high-energy handling of the deposit, the participants deftly managed to knap a generous collection of stout stone tools (Figure 3). Some students used antler and copper pressure flakers to create unifacial scraping tools from the flake assemblage at hand. This collection of flakes and unifacial tools created the bulk of the assemblage brought to the food processing activity that followed.

![Figure 2. Knappers practice their skills on local Onondaga chert.](image)

In 2016 the Archaeology Centre’s knap-in students butchered a juvenile sheep with their stone tools. This year at members’ request the Centre purchased a deceased adult sheep for butchering. Unlike the juvenile, the adult sheep arrived pre-skinned, but its larger size and tougher flesh kept the team busy for a few hours. Experienced faunal analysts Stephen Rhodes and Aleksa Alaica guided the small group of butchery students as voyeuristic onlookers came and went (Figures 4 and 5). Participants showed surprise at how quickly an unretouched fresh flake would turn dull after a few minutes of use, and enthusiastically noted the larger meat yield of this adult sheep compared with last year’s juvenile. Members of the Faunal Interest Group retained the butchered bone assemblage from the adult sheep and can now study butchery marks from the two animal assemblages together. In the end, the meat yield made for an excellent main course at the Archaeology Centre’s annual end-of-season barbecue the next night.
Figure 3. The chert gathered at the quarry made for fine knapping practice.

Figure 4. Participants butcher the sheep as colleagues observe the process.
Figure 5. The food processing team sectioned and butchered the sheep in only a few hours. Each part of the animal was retained for food or a research project.

One of the Lithics Interest Group’s goals is to give participants practical, hands-on experience crafting on and with lithic raw materials and tools. The stone tool experience described here was designed to fulfil that goal and frame the theoretical classroom-based discussions that the group organizes throughout the year. The group also used the experience to debate some of the ways education and communication can facilitate stone tool production and use.

Details about the Archaeology Centre including its annual programming and resources can be found at http://www.archaeology.utoronto.ca.

References

Supplementary file
Google Earth (KML) file with the stopping locations mentioned in the text. [download]