

A Taste for Mustard: An Archaeological Examination of a Condiment and Its Bottles from a Loyalist Homestead in Upper Canada

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Abstract During the excavation of the Loyalist-period Butler Homestead site in Niagara-on-the-Lake, Ontario a small cache of glass condiment bottles was discovered in a space identified as a larder or pantry. The form of the bottles suggests that they once contained dry mustard powder, the bottles of which are usually recovered from military sites when found in Canada. This paper examines the cultural history of mustard as a food and medicine, its role in eighteenth-century British cookery and agriculture, and demonstrates how this specific form of glass container tied a Loyalist household to local and international trade networks in British North America and England.

Keywords Mustard · Glass bottles · United Empire Loyalists · Upper Canada · Agriculture · Domestic use and consumption of mustard

Introduction

Mustard, a resilient plant found in temperate climates across the northern hemisphere, produces one of the most popular condiments in the modern world. It was first introduced to Britain via the Roman conquest in 43 CE (Alcock 2011, p. 548; Willcox 1977, p. 278) and by the eighteenth century had emerged as a common ingredient in the British kitchen. Originally, mustard was grown in small market gardens and employed in localized culinary and medicinal practices. However, during

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the last decade of the seventeenth century into the first quarter of the eighteenth century it became a nationally available ingredient due to a change in the production process of mustard flour, a refinement of its domestic application, and the geographic expansion of its cultivation across Britain. The integration of mustard into period recipes reveals how quickly it was embraced, likely because its heat was easily manipulated for personal taste.

In Britain's American colonies, mustard first appears on the import inventories of colonial merchants in the mid-eighteenth century. As mustard grew in popularity in England, it also became more frequently imported to America, and the plant was eventually integrated into local agriculture making it more easily acquired throughout the colonies. The influence that this dynamic plant and its by-products had on British colonial society can be examined by means of its stylized glass container known as a "mustard square." This type of bottle played a vital role in the distribution and sale of mustard. Mustard squares were small enough for several to be packed and protected within a shipping crate and were an appropriate size for individuals interested in purchasing easily portable quantities. In Canada, specimens of these bottles have been recovered and identified on military forts with correlated British occupations from the eighteenth and early nineteenth centuries (Jones 1983). The discovery of at least eight mustard squares from the excavation of a Loyalist homestead in Niagara-on-the-Lake, Ontario now provides a contextual extension into the domestic sphere of early Euro-Canadian society. The recovery and identification of these bottles informs us of the culinary traditions upheld by the dominant Anglo-American culture of early modern Ontario, and provides an example of a Loyalist family's ties to local and international trade markets.

The Loyalist Settlement of Niagara-On-The-Lake

The Town of Niagara-on-the-Lake is situated on the west bank of the Niagara River directly across from Fort Niagara at the mouth of Lake Ontario (Fig. 1). It was settled in the late eighteenth century by refugee American colonists known as United Empire Loyalists, who had supported the British Crown during the American Revolution.

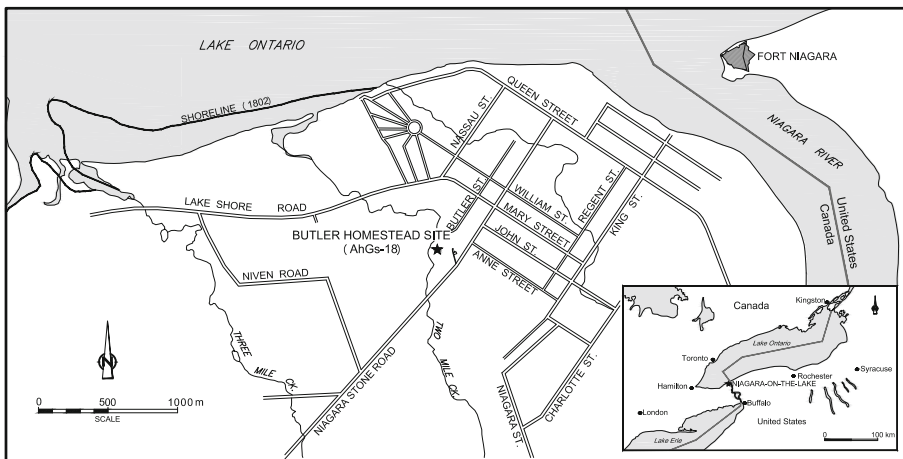


Fig. 1 Location of the Butler Homestead Site (AhGs-18) within the Town of Niagara-on-the-Lake; Southern Ontario (inset). Map by Andrew Clish, courtesy of Archaeological Services Inc.

During the Revolutionary War, the arrival of dislodged New York Loyalists and Six Nations Iroquois led to severe overcrowding both within and around Fort Niagara, which already acted as an important military outpost from which militia raids were sent out into the colonies of Pennsylvania, New York, and Kentucky (Bowler and Wilson 1979; Wilson 1983, p. 4). The unexpected surge in population put extreme stress on the limited military food rations and supplies meant for British troops and militia corps. The fort had vegetable gardens and fruit orchards planted with seed transported from Europe but these could not fully supplement the military rations for the thousands who fled there (Farmer and Farmer 1989, p. 15).

In 1778, Lieutenant Colonel John Butler, the leader of the Butler's Rangers militia corps and a deputy Indian agent at the fort, negotiated an agreement with the local Mississauga band to build temporary log barracks for his companies. These were constructed on the west side of the Niagara River (Cruikshank 1893, p. 1), but this attempt at relief for the soldiers did not do much to alleviate the overcrowding of civilians at the fort. The solution was to negotiate another treaty with the Mississaugas to allow for the creation of a temporary farming community on the west side of the Niagara River (Haldimand 1779). In May 1780, the British government sent a small number of Loyalist families residing at the fort to the west side of the river to set up homes and farming operations. In return, these settlers agreed that their agricultural yields would supply food for themselves and any excess would be directed to the commandant at the fort for military use. The colonial administration perceived this community to be an annex to the fort under the authority of the garrison commander, and originally intended it to be a temporary arrangement. The Loyalist families who were resettled did not pay rent and were assessed on an annual basis to determine whether they were productive enough to remain living and working on their allotments. Few refugees at the fort held any personal possessions and so the government supplied the families with food rations, basic tools for land clearance and home construction, and the seed, grain, and farming implements necessary to set up a working farm (Cruikshank 1893, pp. 89–90; Haldimand 1780a).

Lieutenant Colonel Butler acted as the advocate for the small settlement and frequently communicated the progress, successes, struggles, and needs of the residents to the colonial administration. His affinity for these people originated in their common roots from the rural farms and villages of the Mohawk Valley in New York State. Further, many of the same men had enrolled in his militia when it was formed in 1777 and some had since been discharged while in service at Fort Niagara due to age, infirmity, injury, or fulfilment of duty. In thanks, he wished to ensure that they were duly rewarded for their service by being chosen to establish the agricultural community (Cruikshank 1927, pp. 20–21; Smy 2004). In 1782, an informal census of the small habitation enumerated 16 Loyalist families (a total of 84 people) who had cleared approximately 236 ac (96 ha) and returned 1176 bu of grain and 630 bu of potatoes. The community also had many horses, cattle, pigs, and sheep (Mathews 1965, p. 88; Woodruff 2011, p. xii). In April 1783, an official survey mapped out the locations of farms and homes that were occupied and how much land was cleared and ready for future Loyalist resettlement. By May 1784, the community had expanded to 46 families with a total clearance of 731 acres (Mathews 1965, pp. 88, 91–92).

After the Revolution ended, the British government committed to aiding Loyalists who wished to leave the United States with transport and resettlement to other British territories. The mouth of the Niagara River was a primary entry point into the Upper

Great Lakes fur trade region and keeping British colonists close to this route after the Revolutionary War was a Crown concern. Thus, in Upper Canada, most Loyalist communities were the first Euro-Canadian settlements established in the wilderness and the goal for each person or family was to gain as much self-sufficiency as possible before government-supplied rations were discontinued in 1787 (McCalla 1983, pp. 280–281).

The Butler Family at Niagara

When the Butler's Rangers corps was formally disbanded on June 24, 1784, the company's members dispersed with other newly arrived Loyalist civilians into the new townships established throughout the western Quebec territory that became Upper Canada (Cruikshank 1893, p. 113). Like many of his fellow Loyalists, John Butler and his family had also suffered great personal loss during the American Revolution. Their estate on the western frontier in New York had been seized during the war, his eldest son killed in a skirmish in 1781, and his wife Catharine and four other children held captive in Albany from 1775 to 1780 (Haldimand 1780b). In the winter of 1780, they were released on prisoner exchange and escorted into Canada. They stayed at the Loyalist refugee camp at Fort Haldimand on Carleton Island and then later moved to Montreal (Bolton 1780; Haldimand 1780c). John and Catharine's two older sons, Thomas and Andrew, were mustered into the Butler's Rangers corps, and their youngest son William Johnson was sent to England where he was educated (Smy 1997, p. 44, 2004, pp.58–60). Where their daughter Deborah stayed is unknown. She may have stayed in Montreal with her mother or gone to England for education with her brother.

After the war concluded, all living family members reunited in Niagara where John built a home and farm and his children also received land grants. Butler's active participation in helping to establish and then settle his own family at Niagara earned him several appointments within the local government. He continued to act as a superintendent for the Six Nations as he had been prior to the war, was a justice in the Court of Common Pleas, and became a member of the land board for the District of Nassau upon its creation in 1788. When the Lincoln County Militia was established, he was appointed a Lieutenant-Colonel and eventually promoted to the rank of colonel (Bowler and Wilson 1979). John was so well regarded that the initial village at Niagara-on-the-Lake was briefly called "Butlersburg" (Draycott and Fryer 1998, p. 149). Butler had an active interest in setting himself up as a merchant supplier and landowner in the region, and on a personal level, he continued to advocate intensely and persistently for his lost wages and property values through his War Loss claims to the Crown (Bowler and Wilson 1979). Despite his efforts, he did not receive all that he sought before his death in 1796.

Very little is known about other members of the Butler family with respect to their years in Canada. What can be gleaned from the historical record is mention of an event such as a birth, marriage, or death, or, references to legal matters such as inheritances, property transactions, business partnerships, or land claims from military service in the American Revolutionary War or the War of 1812. The Butlers are mentioned a few times in Elizabeth Simcoe's diary but her entries are

brief remarks on John's death in 1796, a trip past a Butler property in the Niagara region, or sharing a ride home with a young Miss Butler (Robertson 1911).

The Archaeological Excavation of the Butler Homestead Site (AhGs-18)

The discovery of the Butler Homestead site (AhGs-18) occurred in 1996 through an archaeological property assessment that preceded the development of a new subdivision in the town of Niagara-on-the-Lake (Mayer Heritage Consultants 1996, 1999). This led to a salvage excavation of a portion of the site (Fig. 2) that took place during the spring through autumn of 1999 (Blaubergs et al. 2011). The archaeological site comprises several features, including the main stone foundation of the house that was occupied from circa 1784 until its destruction in the burning of the town in December 1813. In 2010, the lot where the Butler home stood was preserved as a parkette with a gravel path outline of the foundation and a stone cairn memorial topped with a bust of John. Apart from its association with a prominent family, the importance of the site is that it continues to be one of the few early Loyalist homesteads in Ontario to be archaeologically investigated.

John and his wife Catharine lived in the home from about 1784 until their deaths. Their four children may have also been part of the household until they were married with farms and families of their own. Catharine died in May 1793, and when John died

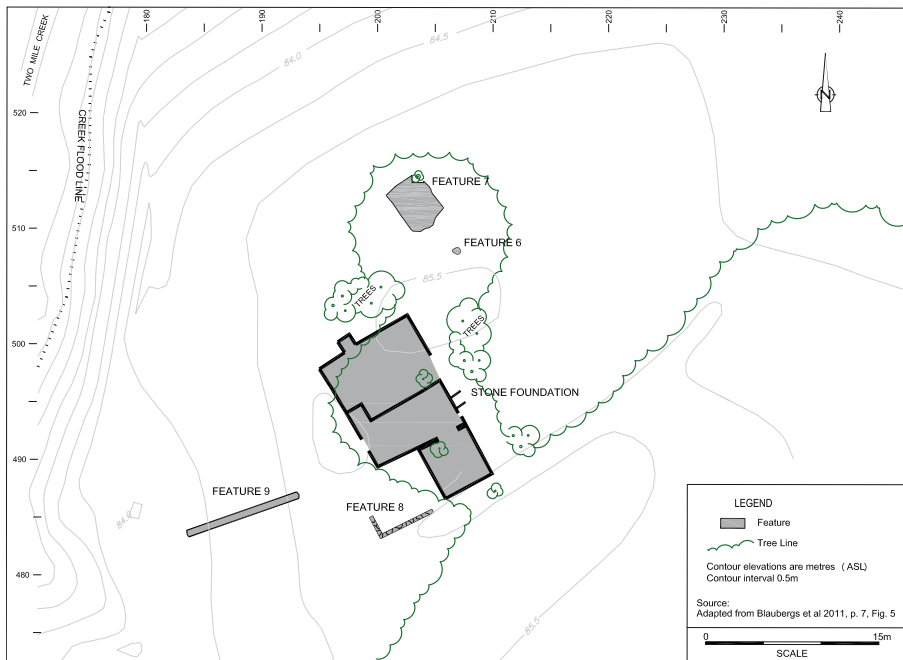


Fig. 2 Excavation map of the Butler Homestead Site (AhGs-18). Map by Andrew Clish, courtesy of Archaeological Services Inc.

in May 1796, the estate passed on to their children. The youngest son, Andrew, initially inherited the house although it seems that their third son, William Johnson, was the one who occupied it – Andrew died in 1804. At the time of their parents' deaths, all four children were living within Niagara on their own farms or town lots (Hunter 1921, pp. 330–332). When the War of 1812 broke out, it is known that the farm functioned as a point of retreat for local residents as it was located about a mile outside of the town (Cruikshank 1902, pp. 261–262). It was occupied by an American piquet for six months in 1813 and then destroyed by a fire set by the retreating American troops in December of that same year (Cruikshank 1907, pp. 265, 278). The lot was never rebuilt upon and the house foundation disappeared under new vegetation.

The Mustard Bottles of Feature 11: Archaeological Context and Analysis

The house foundation was configured with an internal, rectangular enclosure (Feature 11) 2 m wide that was accessible from the middle room of the home (Fig. 3). This room abutted a section of the west wall that was composed of fieldstones and appears to have been lined with tin based on the recovery of hand-wrought nails that had bits of tin plating attached to them. The floor of this area was also wooden (white oak) and like the rest of the home it was extensively burned. The location of this feature within the house and the nature of the artifacts recovered, among them a fair quantity of food and beverage items including wine and mustard bottle fragments and a metal barrel hoop, have led to the identification of this feature as a larder (Blaubergs et al., p. 17; Fig. 4).

Eighty-one fragments of colorless, aqua, light green, and blue glass have been identified as containers holding condiments and include a minimum vessel count of eight square mustard bottles. The majority of these are mouth blown, tall, square bottles with a short neck, wide mouth, and flat, folded lip. The average dimension is 5.5 in (140 cm) in height by 1.5 in (3.81 cm) in width and each bottle would have contained about 2 oz (58.8 ml) of product. Some have chamfered corners that are either concave or flat depending upon the specimen (Fig. 5; Table 1). Olive Jones (1983, p. 69) identified this style of bottle as a generic type used specifically for dry mustard that emerged with the introduction of London mustard around 1800. She noted that plain mustard squares and those embossed “LONDON” occur most frequently on archaeological sites associated with the British military in North America. Examples from Parks Canada collections recovered from late eighteenth and early nineteenth-century British military contexts originated at Fort Beauséjour/Cumberland in New Brunswick, Fort Amherst on Prince Edward Island, excavations from within Quebec City, Fort Lennox on Saint-Paul-de-Île-aux-Noix, the Coteau-du-Lac canal site in Quebec, and at Fort St. Joseph and Fort George in Ontario (Jones 1983, pp. 73–75). More recently, a specimen was uncovered from the site of Barrack Hill, now Parliament Hill, in Ottawa, Ontario. This site was described to be a staging area for the British Royal Engineers who undertook construction of the Rideau Canal beginning in the late 1820s (Ditchburn 2015).

From the cache of eight bottles recovered at the Butler site, only one was a diagnostic piece embossed with the name “RHODES & KEMEYS” on a side panel (Blaubergs et al. 2011, p. 32; Fig. 6). Research into this business revealed that the bottle originated from a small mustard milling operation located on Sparta Brook in the village of Sparta, which is now a part of Ossining, New York. The business was that of two Englishmen named Josiah Rhodes and William Kemeys, both of whom were

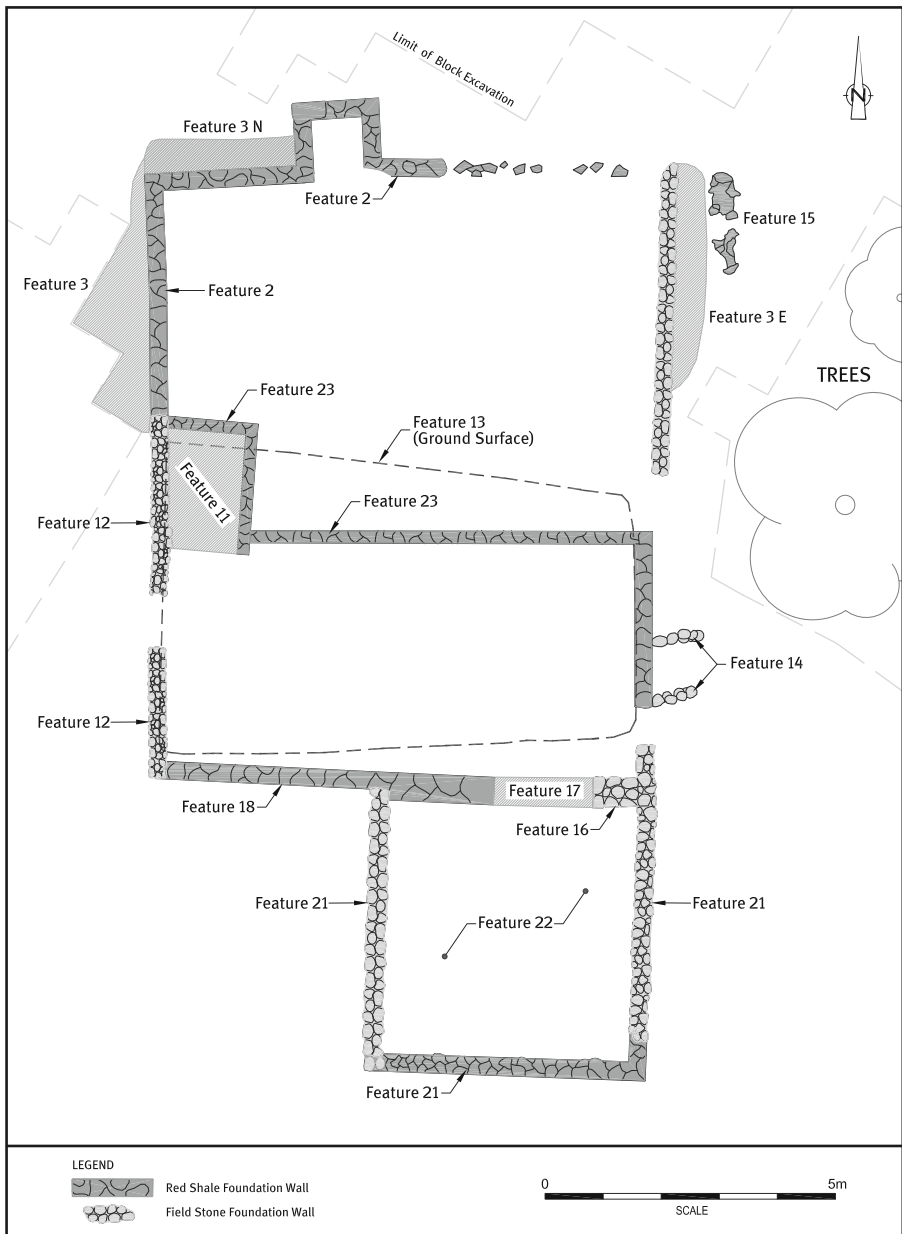


Fig. 3 Map of the house foundation highlighting Feature 11 (the larder). Map by Andrew Clish, courtesy of Archaeological Services Inc.

recent immigrants from Yorkshire. A local history of Sparta noted that their mill appeared on maps from 1797 and consisted of three wooden buildings that were used for various purposes that included milling of mustard flour and crushing of flaxseed. They also produced glass bottles and other containers. Josiah Rhodes died in January 1807 and although the mill continued operating until at least 1819, it did not do so



Fig. 4 The excavation of Feature 11, the larder. Photo by Ellen Blaubergs, courtesy of Archaeological Services Inc.

under the “Rhodes & Kemeys” name (Horne 1976, p. 25). This documentation provides a date range for the Butler site bottle between circa 1797 and 1807. However, the date can be further refined when we take into account the styling of the bottle, which imitated the London-type square mustard bottle, a name that refers to both a particular blend of mustard and a container style introduced around 1800.

Searches for other specimens of Rhodes & Kemeys bottles in archaeological collections, bottle hunter forums, or reference books on eighteenth- and early nineteenth-century bottles have thus far been unsuccessful. Enquiries to the curator of the Ossining Historical Society Museum revealed that local historians had limited information pertaining to the manufacturing history of the mill beyond what was already published in one document on the history of Sparta by Philip Horne. No other bottles from the mill are known to exist and the mill site itself has never been archaeologically explored (Norman MacDonald, pers. comm.). It is most probable that this small enterprise served the local market.

A History of the Mustard Plant in British Culture

Mustard is an annual plant belonging to the *Cruciferae* or *Brassicaceae* family, which also includes all broccolis, cabbages, radishes, Brussels sprouts, and watercress, and comes in three important varieties distinguished by the color of their seeds. These varieties are white, black, and brown, all of which are used as a spice or to make condiments and medicines. These plants are known for producing strong flavors and smells varying from sweet to grassy to hot or spicy (Russell 2014, p. 3). White mustard (*Brassica alba*) is native to North America and Europe; black mustard (*Brassica nigra*) is native to southern Europe and western Asia; and brown mustard (*Brassica juncea*) is native to India (Holder and Newdick 1996, p. 10). White and brown mustard are the varieties used in virtually all modern commercially produced mustards (Davidson

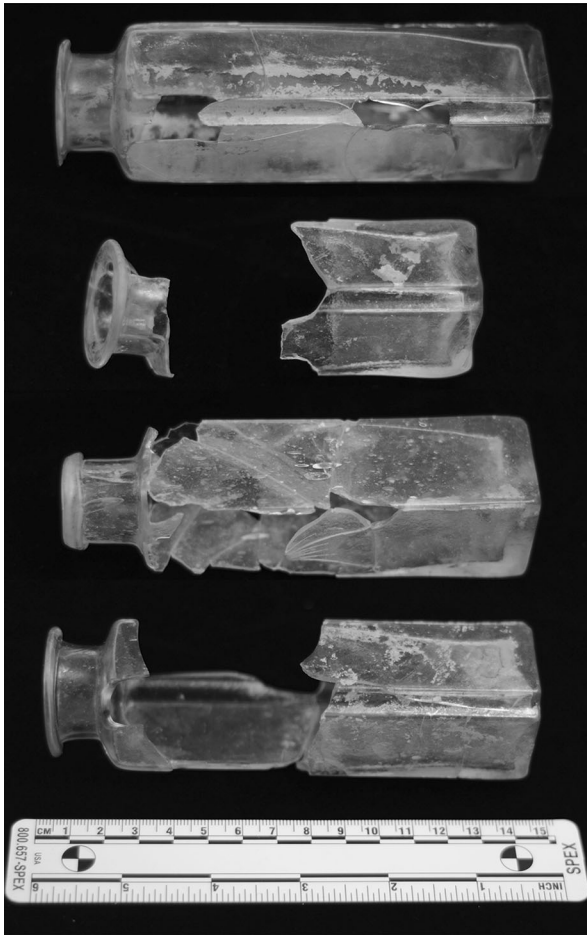


Fig. 5 Plain mustard squares from Feature 11. Top to Bottom: Cat. 14,668, Cat. 14,646, Cat. 14,665, and mended Cats. 14,645 & 14,664. Photo by Denise McGuire

1999, pp. 524–525). Apart from the seeds, the leaves are also often used in salads or flavorings (Smith 2007, p. 398).

Culinary historians note that the etymology of the word mustard is suggestive of the earliest Roman technique for its preparation, which was to mix the crushed seeds with vinegar, oil, honey, and unfermented grape juice called *mustum*. This root is combined with the Latin word *ardens* meaning hot or fiery, which is thought to refer to the pungent oil that was produced from the crushed seeds (Holder and Newdick 1996, p. 16; Smith 2007, p. 398).

Integration of the mustard plant in several Asian societies is indicated for hundreds if not thousands of years before the plant was disseminated into other European and American cultures and countries (Allchin 1969; Crawford et al. 2005, p. 315; Ghosh et al. 2006; Hyams 1971; Weiss 2002, p. 23; Wu et al. 2009, p. 1011). Archaeologically, it has been encountered either as floral remains (e.g., seed husks or oil and leaf residue) recovered from soil flotation samples or as residue adhered onto cultural

Table 1 Identified mustard bottles from the butler homestead site (AhGs-18)

	Cat. No.	Quantity	Type	Material	Description
Bottles from a single excavation context					
Ploughzone Test Unit/Feature No.					
Feat. 11/12	14,642	1	Food container	Glass	Light green. Part of a square mustard bottle.
Feat. 11/12	14,644	3	Food container	Glass	Light green. All sherds mend. Folded-out flanged lip and wide mouth. Square body. One seam on straight neck from mould. Mustard bottle.
Feat. 11/12	14,646	3	Food container	Glass	Light green. Two sherds mend on wide-mouthed, flanged lip. Two mould seams on either side of straight neck. Body has four wide panels and four concave, chamfered corners. Base has a circular pontil scar and a diagonal mould seam. Mustard bottle.
Feat. 11/12	14,647	16	Food container	Glass	Light green square bottle with flat chamfered corners, a wide mouth and folded-in lip. Blown in a two-piece mould as seen by two seams on the straight neck and the diagonal mould seam on the base. Circular pontil scar on base. One panel has embossed lettering: "RHODES & KEMEYS". A mustard bottle.
493–198 (above F.11/12)	14,662	3	Food container	Glass	Light green. Mustard bottle fragments.
493–198 (above F.11/12)	14,665	11	Food container	Glass	Light green. Folded-out rounded lip with wide mouth. Two seams on straight neck. Square body. Closed, circular pontil scar and diagonal mould seam on base. All sherds mend. Mustard bottle.
493–198 (above F.11/12)	14,667	3	Food container	Glass	Light blue. Square body with concave chamfered corners. Closed, circular pontil scar with diagonal mould seam on base. Body is moulded offfilter. Mustard bottle.
493–198 (above F.11/12)	14,668	11	Food container	Glass	Light green. All sherds mend. Folded-in lip and wide mouth. Straight neck with two mould seams. Square body with concave chamfered corners. Closed, circular pontil mark with diagonal mould seam on base. Mustard bottle.
Cross-mended or matched bottles					
Test Unit/Feature No.					
Feat. 11/12	14,643	4	Food container	Glass	Light green. All sherds mend. Folded-in, flanged lip and wide mouth. Square body. Mustard bottle. Matches but does not mend with Cat.14666.

Table 1 (continued)

	Cat. No.	Quantity	Type	Material	Description
493–198(above F.11/12)	14,666	7	Food container	Glass	Light green. Square body. Four sherds mend. Closed, circular pontil scar and diagonal mould seam on base. Mustard bottle. Matches but does not mend with Cat.14643.
Feat. 11/12	14,645	2	Food container	Glass	Light green, mould blown. Four wide panels and four chamfered corners. Base has a circular pontil scar and a diagonal mould seam. Shape of body is slightly off-centre. All sherds mend. Mustard bottle. Mends with Cat. 14,664.
493–198 (above F.11/12)	14,664	4	Food container	Glass	Light green. Wide mouth, folded-in lip, straight neck. Square body with chamfered corners. Mustard bottle. Two sherds mend. Mends with Cat.14645.



Fig. 6 Embossed Rhodes & Kemeys mustard square (Cat. 14,647) from the Butler Homestead Site. Photo by Denise McGuire

artifacts such as pottery sherds. Its social importance in the post-medieval world is reflected in the production of artifacts associated with its processing, distribution, storage, and service, such as bottles or ceramic tablewares like mustard pots and metal serving spoons (Edwards and Hampson 2005, p. 55). The earliest appearance of mustard in England is dated to the Roman occupation of the island based upon samples recovered from the excavations at the Roman city of Silchester (*Calleva Atrebatum*) in Hampshire and Roman era sites throughout London (Alcock 2011, p. 548; Willcox 1977, p. 278). It was probably carried throughout the isles with travelling soldiers and merchants.

Historically, mustard is referenced in records or literature that focuses on its agricultural or floral characteristics and various methods of preparation for suggested uses. Some of the earliest advice for its preparation is found in the work of Roman agriculturalist Lucius Junius Moderatus Columella's work, *De Re Rustica*, (Book XII, 57) dating from 42 CE in which he advised:

“Clean the mustard seeds carefully. Sift it well and wash it in cold water. After it is clean, soak it in cold water two hours. Stir it, strain it, and put it into a new or very clean mortar. Crush it with a pestle. When it is well ground, put in the centre of the mortar, press and flatten it with the hand. Make furrows in the surface and put hot coals in them. Pour water with saltpetre over these. This will take the bitterness out of the seed and prevent it from moldering. Pour off the moisture completely. Pour strong white vinegar over the mustard, mix it thoroughly with the pestle, and force it through a strainer.”

By the Middle Ages, many small centers in England had cottage industries dedicated to its harvest and processing. The town of Tewkesbury in Gloucestershire was particularly well known for its mustard agriculture and preparation and is referenced in William Shakespeare's *Henry IV, Part II* when Falstaff refers to the wit of Ned Poins being "as thick as Tewkesbury mustard" (Humphreys 1966, p. 79). Tewkesbury mustard was prepared as a thick mealy paste formed into balls the size of chicken eggs mainly for easy portability during trade between markets. In order to use it as a properly measured ingredient in stews or sauces, cooks added water, vinegar, or alcoholic beverages like mead, cider, or ale to thin it back out into a paste. Perhaps the most individual characteristic of Tewkesbury mustard was that the recipe called for it to be infused with horseradish root, which added more heat to its flavor (Holder and Newdick 1996, p. 19).

In the post-medieval period, British botanists and agriculturalists such as John Parkinson (1629), John Evelyn (1699), and John Mills (1766) discussed its cultivation in kitchen gardens and field crops as well how to prepare it for consumption at the table. Tradition perpetuates the belief that it was not until the eighteenth century that the mustard production center of England shifted to the northeastern city of Durham where the flour began to be produced on a commercial scale (Stobart 1970). However, the nineteenth-century diarist George Neasham declared that at the very least mustard could not have migrated to the northeast at this time because account books from the monastic community at Lindisfarne mentioned "mwstert qweryngs" (mustard querns) in the year 1436. Further, a household account book of the fifth Earl of Northumberland, Henry Algernon Percy (1477–1527), listed orders for gallons of mustard proving that it was produced and consumed in large quantities (Neasham 1893, pp. 170–171). Nevertheless, Durham County is known to have had a thriving mustard industry in the eighteenth century and was famed for the high quality of its flour. It is said that around 1720, a Mrs. Clements of Durham began using a gristmill to separate mustard flour from the seed husks instead of the traditional method of grinding them by hand in a mortar. The dry flour produced was of a much finer quality and created a smoother paste when mixed with water or vinegar and other spices shortly before serving. This technique for refining mustard flour made it easier to quickly produce, store, and transport the flour. Mrs. Clements kept the secret to herself for many years and, as its popularity spread, personally travelled to deliver orders throughout England. Her particular mustard preparation became known as "Durham Mustard" and was reportedly enjoyed by King George I, which naturally made it the most popular brand in eighteenth-century England (Holder and Newdick 1996, p. 20; Neasham 1893, p.171). A newspaper article found in the *Durham Times* noted that Clements' daughter married into the local flour-making Ainslie family, which kept the business alive. Durham's first mustard manufactory where Mrs. Clements, and later the Ainslie family, ground their mustard flour is hypothesized to be located in the center of town along the Wear River (Simpson 2007).

By the end of the nineteenth century, the Clements-Ainslie family operation had sold their ownership to the Colman's brand from Norwich, where the largest part of England's mustard industry still operates today. Colman's, which began producing and selling mustard out of its flour milling business in 1814, is the brand that introduced turmeric into the mixture to create the familiar yellow colouring mustard often has today (Dennison 2014). Many other mustard producers emerged in the later

part of the eighteenth century but one of the most famous names still surviving is Keen and Sons, Ltd. established in London in 1742. Colman's eventually bought out Keen's in the early twentieth century although it has retained the name of the brand for the marketplace (Holder and Newdick 1996, p. 20). For Colman's 200th anniversary in 2014, limited edition jars labelled with its historic slogans and images such as "Meat Needs Mustard," or a polar bear soaking its sore feet in a mustard bath with a poultice wrapped around its jaw for a toothache, were produced to indicate the importance of mustard in modern British culture.

Culinary and Medicinal Uses for Mustard

A significant source of information for culinary and medicinal uses of mustard is the literature of household management and conduct manuals, which emerged as a literary genre in the eighteenth century and are considered predecessors to the modern cookbook. Popular guides by authors such as Sarah Harrison (1739), Hannah Glasse (1747), Elizabeth Raffald (1769), and William Buchan (1791) in the eighteenth century, and Maria Rundell (1807), Colin Mackenzie (1823), Catharine Parr Traill (1836, 1854), and Isabella Beeton (1861) in the nineteenth century contain numerous ways to incorporate mustard into common culinary and medicinal recipes. The most common function for mustard was as an ingredient in sauces, oils, vinegars, pickles, salad dressings, and gravies or as a primary component of medicinal concoctions used to treat various ailments. Anglo-Canadians could acquire these publications from colonial merchants or through relatives or friends in England, but in the frontier regions of British North America a more personalized household management guide was often curated through neighborly exchange. This was probably the most effective method of collection because many recipes had to be modified to reflect the availability of local ingredients. Recipes have been discovered in personal letters, diaries, manuscripts, and newspapers (Smith 1983; Williamson 2004). The household management book that belonged to Hannah Jarvis, a Loyalist settler who lived in Niagara, included recipes for meals, medicines, and household cleaning agents and how to apply them. One particular recipe listed mustard in the ingredients for curry powder (Jarvis 1811; Troyer 1994, p. 54). In some towns, almanacs that collected and dispensed advice for farming, gardening, cooking, and food preservation were also available from local newspaper printers. These guides usually contained information that had already been published in circulars from larger towns and cities. In Upper Canada, *Tiffany's Upper-Canada Almanac for the Year 1802* was the first regional almanac to be published in 1801 and was produced by the local newspaper printer at Niagara. It was available for purchase at the larger market centers of York, Kingston, and Detroit, as well as a few smaller market stops like Queenston, Fort Erie, and Chippawa (Tiffany 1801; Williamson 2004, pp. 275–276).

British and American handbooks could be acquired during the early nineteenth century, but authentically Canadian authored and published cookbooks were not produced until 1840 with the publication of *The Frugal Housewife's Manual* by the unidentified author, "A. B. of Grimsby." The content of this book is similar in form to its British and American predecessors because it was divided into a housewife's manual and a guide for growing and cooking vegetables (Driver 2008, pp. xxi-xxii). It remained a definitive work for Canadians until Catharine Parr Traill's *The Backwoods of Canada* (1836) and *The Female Emigrant's Guide* (1854) became the preferred authoritative references for settlers learning

to adapt and organize their Canadian homes and farms (see Driver 2008 for a deeper examination of Canadian cookbooks and Traill's guides). In the 1830s, when Parr Traill's first book was published, another new settler in Upper Canada named John Langton also wrote of his experiences setting up a homestead in the backwoods of the province. In one letter addressed to a brother in England he expressed appreciation for the "almost forgotten luxuries" of silver forks and mustard that were set out on the Christmas dinner table at a friend's home (Langton 1926, pp. 51–52). It is a reminder that even two generations after the first wave of Loyalist settlement, the ability to acquire simple commodities was not always easily accessible in more remote locations.

Culinary historians interested in Anglo-Canadian Loyalist cuisine have found, unsurprisingly, that the foodways described in early settler diaries and almanacs closely retain their ties to British and early American traditions albeit with adaptations reflecting the local availability of certain animals, plants, or imported ingredients (See Driver 2008, pp. 361–362; Duncan 1991; Fairfield 1888; Smith 1983). A study of faunal elements recovered from the Butler Homestead excavation has also provided a convincing argument for this observation when the various species of fish, bird, and mammal that the Butler family would have had access to either as livestock or through hunting were compared to some of the most popular recipes published in Hannah Glasse's manual (MacDonald and Needs-Howarth 2013, pp. 39–40, Table 4).

The other contribution that mustard made to a household was as an effective multi-purpose remedy for many common medical ailments. In small communities where doctors may not have been immediately available, it was a self-remedy that was easy to prepare and apply. However, care was needed when handling the plant because it produces oil that is strong enough to irritate and eventually anaesthetize the sensory nerves. Therefore, caution had to be taken when handling it for certain remedies (Holder and Newdick 1996, pp. 6–7). Mustard has been noted since antiquity for its efficacy in treating the symptoms of rheumatism, gout, arthritis, colds, and fever. It was described in various works throughout the Hippocratic Corpus of medical knowledge (e.g., *Diseases III*; *Internal Afflictions*; *Regimen in Acute Diseases*; and *Epidemics*) as being antibacterial, antifungal, appetizing, carminative, diaphoretic, digestive, diuretic, emetic, expectorant, rubefacient, and stimulant. Pliny the Elder (*Natural History* 79 CE, Vol. V, Bk. XIX, Ch. LIV) also observed the healthful benefits of incorporating mustard into a personal diet coupled with the fact that the plant was incredibly adaptable to new soils so that it could thrive in many environments (Pliny 1961).

Its most successful medicinal applications come about when it is ingested in large quantities as an emetic, or, in small doses to be used as a digestive, a diuretic, a stimulant or an anti-emetic. Elizabeth Simcoe, the wife of Upper Canada's first lieutenant governor, recorded that on her voyage to Canada from England in 1791, she overcame seasickness

by persevering to go on the Deck & by eating salt beef covered with Mustard, that I so soon became well & as my health amends my spirits rise (Robertson 1911, p. 44).

Other useful treatments for a variety of ailments included chewing the seeds to relieve toothache, gargling a mixture of warm wine and mustard to soothe sore throats, adding it to bath infusions to relieve sore feet and joints, or boiling it in water to produce a disinfectant vapor that can be inhaled to relieve sinus infections. Mustard was also prescribed for external use in the form of poultices and plasters well into the

twentieth century. Poultices were common for all manner of ailments, but especially for colds, coughs, asthma, or pneumonia; illnesses in which difficulty breathing was a primary symptom (Anonymous 1889, pp. 190–193, 288–299; Holder and Newdick 1996, p. 7). In this treatment method, mustard was mixed into a flour-based paste that was then smeared on strips of cloth to be applied to the affected external area. Before a plaster or poultice was administered, the surface of the skin was slathered with a greasy balm or oil in order to prevent irritation (Weiss 2002, pp. 23–24). In the Loyalist town of Shelburne, Nova Scotia, the Royal Engineer surveyor William Booth wrote in his diary that when his wife Hannah became terminally ill, mustard flowers were rubbed on her body to alleviate aches and pains and poultices made of mustard and vinegar were applied to reduce her fevers (Booth 1787–1789; Harvey 1975, p. 18).

While both Pliny and Hippocrates may have been fans of the plant, Pliny also cautioned that planting mustard in a medical garden or field crop should be carefully considered. He observed that the plant could firmly root itself into fields and resist destruction, a statement that was echoed in the eighteenth century by the English agriculturalist, Arthur Young (1771), who warned farmers that once a field was sowed with mustard it would be permanently infested with the plant. Despite these cautions, the varied therapeutic applications of mustard ensured that many families kept it on hand.

Mustard for the Marketplace

During Britain's Industrial Revolution, the innovation and standardization of commercial food packaging became increasingly important as its citizens migrated around the world carrying personal supplies of favored provisions such as mustard, snuff, liquids, beverages, oils, and medicines. The eighteenth-century demand for mustard in British households eventually led to the creation of specialized containers for its storage and transport. Containers of varying sizes were produced to facilitate transportation, storage, or consumption in both bulk and personal-sized quantities. Before the eighteenth century, the word "bottle" had more often referred to ceramic containers but the rise of glass forms used to contain liquids overtook this mode and the meaning of bottle became tied to glassware (McKearin and Wilson 1978, p. 246). Glasswork centers in Britain arose in communities with access to silica sources (sand), coal to fuel the intense fires required in kilns or ovens, and access to water. Bottles were either free blown or mold-blown and sealed with corks covered with pitch or wax to prevent leaks. At first, irregular body shapes in circular or ovoid form were created depending on the skill of the blower but the introduction of molds helped to regulate body forms. Bottles were usually blown to contain predetermined products but some were also sold empty to manufacturers and individuals alike to be used for the distilling or decanting of beverages and medicines (McKearin and Wilson 1978, pp. 249–250).

Colonial glass manufacturers followed the standard set by their British relatives and began to produce glass containers for a variety of dry or liquid foodstuffs. The names of these container styles often reflected the type of product that was most commonly sold in that particular form, but these bottles did not always contain that specific commodity (Zumwalt 1980, p. 9). Two styles of bottle have been found associated with the storage and distribution of mustard, one being a dark green, glass octagonal bottle that was also used for snuff; the other, a tall, slim, square now known as a "mustard square." This

latter style was the type discovered at the Butler site. It is worth noting that the earliest mustard bottles are described generically in regard to their characteristics, but examples reveal that they do not appear at all like the tall, narrow squares that have been recovered in British military contexts in Canada or those that appear on bottle digging websites from United States. They are also interchangeable with snuff bottles perhaps because both products had the same type of floury consistency (McKearin and Wilson 1978, p. 263). Jones' research found that the term *square* was used extensively throughout English glass lists and seems to loosely refer to both the rectangular bottles with chamfered corners and the flat octagons (Jones 1983, p. 77). In the English glass industry, dark green glass was used for bottles that held more than six ounces while light green or colorless glass was used for smaller bottles (Jones 1993, p. 33). This practice seems to have carried over to North America.

The earliest mention of bottled mustard in an Anglo-Canadian context is found in 1752 in the *Halifax Gazette*, which printed two different merchant advertisements listing mustard amongst their imported shipments for sale; only one of the advertisements directly states the mustard is contained in a bottle but the shape and volume are not stated (*Halifax Gazette* 1752). McKearin and Wilson's research uncovered evidence that a London chocolate and mustard manufacturer by the name of Benjamin Jackson had arrived in the American colonies by 1755 and advertised his intent to establish a mustard manufactory in Philadelphia (*Pennsylvania Journal* 1755). Jackson was successful in his venture as seen in an advertisement dated almost two years later listing his American-manufactured products for sale (*Pennsylvania Journal* 1757) however, it was the emergence of his competitors, Wagstaffe and Hunt, who produced the earliest advertisement for bottled mustard in America (*Pennsylvania Gazette* 1758). Compared to the date of mustard manufacturing in America, early Canadian mustard manufactories are currently unknown until the latter half of the nineteenth century with the establishment of the G. S. Dunn Dry Mustard Millers in Hamilton, Ontario in 1867 (Anonymous 1886; Fischer and Harris 2007; McGuinness 2012; Mika et al. 1987). This is not surprising considering that the establishment of saw, grist, and woollen mills pivotal to producing the basic needs of a community was tightly regulated and only four government-controlled King's Mills, located at strategic community locations, were permitted to operate in the first decade of settlement (Fischer and Harris 2007, p. 10; Hughes 2011; Mathews 1965, p. 90). Therefore, the flours of seeds and grains used in common household cooking (i.e., cornmeal, oatmeal, mustard, etc.) were often crushed using a mortar and pestle type hand mill such as a plumping mill or hominy block (Mika et al. 1987, p. 10). Individual bottling of mustard flour in this period may have been in ceramic food preparation and storage vessels within the household, or perhaps the mustard flour was only produced as needed.

In the late eighteenth or early nineteenth century, a new variety of British mustard called "London mustard" was introduced and with it came a new style of square bottle that held about two ounces of product (Jones 1983, pp. 77–78; Jones and Smith 1985, p. 60). The London mustard square is the same form that has been observed on British military sites in Canada, in Kentucky, and now at the Butler Homestead site in Niagara-on-the-Lake, (Jones 1983, pp. 71–73).

This unit size made dry mustard a more easily purchased commodity because prior to its introduction, only larger bulk quantities of quarter-pound (0.11 kg), pint (568.2 ml), pound (0.45 kg), or 14 oz (397.8 ml) units were available (Jones and Smith 1985,

p. 60). London mustard was simultaneously imported from England and produced domestically in American mills but what is most interesting is that individual mustard manufacturers were producing their own bottles in private molds and embossing them with names (McKearin and Wilson 1978, p. 263). This practice is employed on bottles embossed with the familiar brands or product names “London,” “Durham,” or “Kentucky,” and the word “Mustard” on the panels of the squares. On Canadian archaeological sites, plain London mustard bottles appear in the same frequency as those embossed (Jones 1983, pp. 78–79; McKearin and Wilson 1978, p. 263). It is impossible to confirm where the bottles originated even with ultraviolet testing of the glass composition to determine whether the bottles have any (or enough) lead content in them to try and determine the point of origin for source materials (Jones 1983, pp. 71–73). On the other hand, the embossed “Rhodes & Kemeys” bottle found at the Butler Homestead site can be regarded as especially unique in that the manufacturer’s name has provided a clue to its point of origin. This specimen could be one of the earliest examples in North America of a mustard manufactory that embossed its glass containers.

British Mustard and its Bottles in the Military and Domestic Spheres of Upper Canada

In the late eighteenth century, specially requested non-standard provisions such as mustard, sugar, fresh meat, fresh bread, cheese, brandy, coffee, tea, and pepper were ordered by fur trade merchants set up at the major Great Lakes forts. These items arrived at distribution centers in Montreal, Quebec City, and Fort Haldimand on Carleton Island where they were inventoried and re-directed to their destinations (Pippin 2010, pp. 113, 119, 170, 172). For military personnel, mustard gave a more appealing flavor to the plain, preserved foods that composed a large part of the military diet. A typical soldier’s ration consisted of one and a half pounds (0.68 kg) of bread or flour, one pound (0.45 kg) of beef or a half-pound (0.68 kg) of pork, a quarter pint (142.1 ml) of pease, one ounce (28.4 ml) of butter, and one ounce (28.4 ml) of rice. When items in this list were unavailable, soldiers were limited to flour or bread and beef or pork, and at times those were further reduced to only flour, bread, or rice (Pippin 2010, p. 118). Popular meats like beef and pork were preserved with salt, which obliterated natural flavor unless cooked or served with an accompanying sauce that stimulated the taste buds. Adding a condiment like mustard into the military diet offered the palate a welcome change in flavor when compared to the limited choice provided in the food rationing system (Ross 1993, pp. 49–50). However, access to non-standard provisions was out of the realm of possibility for regular soldiers due to the limited privileges of their rank and salary (Pippin 2010, p. 119). Examples of British North American military personnel who acquired mustard while in service include Colonel Henry Bouquet, who had six bottles of mustard at the time of his death in 1765, and Major-General Sir Isaac Brock, who had one bottle of Durham mustard in his effects at the time of his death in 1812 (Jones and Smith 1985, p. 60). John Butler, as the leader of an irregular corps unit, was also entitled to provide his companies with better than average foodstuffs including mustard, cheese, chocolate, coffee, and tea. It is known that he did exercise that privilege for his men, probably because he also was paying their salaries and providing uniforms and arms with the promise that his expenses would be reimbursed by the British government (Butler 1779).

At the frontier forts like Haldimand, Niagara, Detroit, and Michilimackinac, non-standard provisions and commodities were also sold to the transient populations of Loyalists and Indians who sought refuge and ultimately brought more business to the merchants than the military (Pippin 2010, p. 171). When the revolution was over, many of the merchants that operated at British forts around the Great Lakes established themselves in the new colonial settlements of Upper Canada. In the first few years of settlement, most Loyalists were occupied with forest clearance and start-up agriculture. They were issued basic supplies of food rations, tools, and clothing from military commissaries but beyond those bare necessities, they had to turn to local commerce for

trade in seed, breeding stock, nails, wire, pots and pans, stoves, tools, shoes, clothing, lumber, furniture, and other household and farming goods. Many items came from outside the province such as salt, sugar, paper, certain kinds of clothing and implements, and iron and iron products that could not be produced in blacksmith shops and small forges. In bad years, even basic foods came from the outside (Neill 1996).

The Anglo-Canadian mercantile system was slow, expensive, and frustrating to negotiate. The rigidity of the structure was explained by Richard Cartwright, a fur trade merchant who operated the largest business in Upper Canada during the 1790s, as

impossible or extremely inconvenient for any person here to import goods except through the medium of a Montreal house... The mode usually practised here is this: the merchant sends his order for English goods to his correspondent at Montreal, who imports them from London, guarantees the payment of them there, and receives and forwards them to this country for a commission of five per cent on the amount of the English invoice. The payments are all made by the Upper Canada merchant in Montreal, and there is no direct communication whatever between him and the shipper in London. The order, too, must be limited to dry goods, and he must purchase his liquors on the best terms he can in the home market (Cartwright 1876, pp. 76–77; McCalla 1983, p. 292).

The limitations and expense of transatlantic trade between Britain and Canada described here by Cartwright did not account for the additional costs that Canadian merchants applied to account for their own efforts in transporting received shipments deeper into the Canadian interior. The Duc de la Rochefoucauld-Liancourt, who travelled through the Niagara region in its early Loyalist years, echoed Cartwright's description with a closer observation of this cumbersome scheme writing that

everything is excessively dear at Newark [Niagara-on-the-Lake]. The shops are few, and the shopkeepers, combining against the public, fix what price they choose upon their goods. The high duty laid by England upon all the commodities exported from her islands proves a powerful encouragement to a contraband trade with the United States, where, in many articles, the difference of price amounts to two-thirds" (Riddell 1917, p. 43).

Rochefoucauld-Liancourt's comments on the circumstances of local trade at Niagara illuminate why a bustling, although illegal, trade with American-based merchants and

personal contacts became a frequent and cost-effective alternative for many settlers. Many of the goods that were traditionally provided through English trade houses were now also supplied by American industries. Eventually, trade restrictions between Britain and its colonies and the United States of America were dissolved upon the ratification of Jay's Treaty in June 1795 (Neill 1996).

The Loyalists and other early settlers of Upper Canada eventually did catch up to their American counterparts in terms of agricultural and industrial production. By 1789, approximately five years after most Loyalists had been settled in Upper Canada, agricultural yields for grain, vegetables, and fruit were providing profits for farmers. Evidence that mustard was one of these early crops is found in an account relating to memories of a devastating drought that caused 1789 to be remembered as "The Hungry Year" (Taylor 1999). Residents of Niagara recalled being so desperately hungry that they were reduced to eating "mustard, potato tops, sassafras root, and made tea of the tops," (i.e., the hardest and meanest parts of the vegetation that managed to survive the extreme conditions) (Lindley 1892, p. 579 cited in Jones 1946, pp. 17–18; see Taylor 1999, pp. 146–47, 157). In hard times, mustard and other plants typically grown for specific culinary or medicinal uses and generally considered unappetizing when consumed raw, provided a basic source of sustenance.

More direct documentary evidence of mustard importation or farming in Upper Canada does not appear until the 1790s, when newspapers or circulars were established out of the main civic centers. Upper Canada's first newspaper, *The Upper Canada Gazette, or American Oracle*, was established in Niagara in April 1793; the first merchant advertisement for Mr. Davenport Phelps of Niagara was published in its pages on June 10, 1794, but it did not list mustard. The first advertisement to mention mustard was from a Kingston merchant named John Cumming, who listed a sample of his stock on August 1, 1798. Cumming's notice declared that he had received two shipments from London and Bristol that contained an extensive variety of dry goods and groceries, including mustard, available for purchase (*York Gazette* 1798). The only other advertisement that included mustard was posted by the merchant Laurent Quetton St. George, who also provided an extensive list of available merchandise sold and distributed from his main store at York (*York Gazette* 1803).

A search for mustard in crop and garden seed advertisements in Upper Canadian newspapers was also conducted but none were found. Quetton St. George's business also dealt in the seed trade and he had the earliest datable advertisement dedicated solely to garden seeds (*York Gazette* 1808) but mustard was not mentioned even though the plants were probably a component of many kitchen or farm gardens at this time. In light of one recorded account of settlers in Niagara being reduced to eating mustard plants for sustenance during the drought of 1789, and knowing that all three types of mustard were available in the Atlantic provinces from at least the 1780s (Harvey 1975; Lindley 1892, p. 579), it seems an odd omission but could be explained from another angle. Agricultural development undertaken by Loyalist settlers in both Upper Canada and the Atlantic provinces progressed at the approximately the same rate, meaning that within a few years of arrival, most colonists had cleared home lots and small acreages and started to plant gardens and orchards as a principal source of fruit, vegetables, and herbs. "Gardens were expected to supply medicinal substances, culinary flavorings, textile dyes, insect and rodent repellents, cleaning agents, and scents for perfumes and wash waters" (Woodhead 1998, p. 47). Another source of seeds was new immigrants or visitors from

Europe who were encouraged to bring seeds with them to set up their gardens or to replenish the supplies of other colonists (Woodhead 1998, pp. 198, 213). Catharine Parr Traill also mentioned that travelling American peddlers sold seeds throughout Upper Canada but more often than not they were “little better than chaff” (Traill 1836, pp. 179–80). An example of the diversity of horticulture is found in the War of 1812 war loss claim submitted by Robert Kerr of Niagara, which extensively listed over 58 species of fruit and nut bearing trees, vineyards, flowers, ornamental trees, and medicinal plants that had taken him almost twenty years to accumulate and cultivate and that were lost in the American retreat from Niagara in December 1813 (Duncan 1991, p. 156). This diversity was substantiated by some of the floral data that was recovered and analysed from the Butler Homestead site, although no remains could be attributed to mustard seed or flour residue in soil samples (Blaubergs et al. 2011, pp. 48–49; MacDonald and Needs-Howarth 2013, p. 38, Tables 5, 6). Perhaps among all the praise and focus devoted to the lush fruits and vegetables of the province, more utilitarian plants like mustard were overlooked in these early reflections and documents.

What can be definitively ascertained from the available source material is that the rapid land clearance by the Loyalists and other early settlers in Upper Canada quickly established a diverse agricultural and horticultural economy. No doubt, the abundance of food in this region coupled with a growing population made for a proliferation of home cooks for whom growing, processing, or purchasing mustard would be a necessary and prized ingredient in their kitchen.

Mustard Bottles at the Butler Homestead Site: What Does it all Mean?

The discovery of a store of mustard bottles has inspired an examination of the Butler household and what first appears to be a familial affinity for mustard. All of the bottles were found within a small room interpreted as the larder. This indicates that mustard was commonly used in food preparation but the possibility of its medicinal application should not be disregarded. Tinned ointment pots used for pharmaceutical preparation also were recovered from the site (Blaubergs et al. 2011, p. 35), indicating that home remedies were prepared to treat some ailments and mustard flour could have been an ingredient in such remedies.

The origins of seven of the eight mustard squares remain unknown because no identifying marks were placed on the bottles. They could have come from England or America depending on where a local Upper Canadian merchant happened to receive shipments of stock from at any point in time and some stock items may have sat in their stores longer than others if not frequently demanded. The embossed “Rhodes & Kemeys” bottle is the most interesting because its name is tied to a small mill manufactory in New York with a probable production phase for the bottle and its contents (1797–1807). This phase happens to be from the start of the mill operation up to the death of Josiah Rhodes’ in January 1807, after which time the company name was changed. The dating aligns nicely within the years in which the Butler homestead existed (1784–1813) although it would mean that the family kept a bottle of mustard flour in their larder for six years. Another scenario may be that remainders of the mill’s old bottle stock were used up before new bottles were made. In support of this theory, Josiah Rhodes’ will had an inventory of the company’s stock and “bottles and other containers” were included in that list (cited in Home 1976, p. 25). Yet another possibility is that the Butler family re-used the bottle for another product after they were done with the original mustard product.

The family retained kinship ties to New York after the Revolutionary War, thus they would have had opportunity to purchase many household items and foodstuffs directly in the United States. John's wife Catharine came from a prominent Dutch family (Bradt) involved in the fur trade in the Schenectady and Albany region and although most of this branch of the Bradt family had sided with the Patriot cause during the Revolution, there seems to have been little animosity between these relations. Evidence of the state of Catharine Butler's relationship with her sister Jane Yates is found in a letter that John Butler wrote in 1784 to his brother-in-law, the prominent Patriot quartermaster general Christopher Yates. Butler specifically wrote that he was hoping to be reunited with some of the family's personal valuables that had been stored away amongst those of their acquaintance to hide from authorities. He also asked if Catharine might stay with Yates' family when he intended to go to England to pursue his War Loss Claim (Butler 1784).

The bond between the Butler and Yates families was further strengthened when Butlers' third oldest son, William Johnson, married his first cousin, Eve Yates (daughter of Christopher and Jane), in 1795. In this instance, it is possible that Johnson Butler travelled frequently between Niagara and Schenectady as he reacquainted himself with that branch of the family and arranged their marriage. During their relationship, Johnson or Eve's proximity to local market products in eastern New York could have been one means by which the Rhodes & Kemeys mustard made its way back to Niagara. The production date range for the bottle also ties it to the household of one of Butler's sons (probably Johnson) who occupied the house after his death in May 1796 and would thus relate to the taste preferences of that household. A study of popular recipes in Georgian-era cookery compared with recovered faunal specimens from the site demonstrated that cookbooks like *The Art of Cookery Made Plain and Easy* (Glasse 1747) promoted the use of mustard, especially in the accompanying sauces and gravies served with meat and vegetable dishes (MacDonald and Needs-Howarth 2013, p. 31). The Loyalists' retention of traditional foodways in a time of instability, stress, and personal reinvention would have been a comforting and familiar way for families like the Butlers to feel established within their newly organized communities.

The eight mustard squares recovered at the Butler Homestead site have presented an opportunity to examine the cultural rise and production history of dry mustard in Britain and its colonial North American cultures. To date, this is the first known instance of several mustard bottles being recovered from an early domestic site associated with a Loyalist family and settlement in Ontario. The data is perhaps biased by the fact that the primary article published by Olive Jones over 30 years ago focused solely on collections held by Parks Canada but her study was the first time that this bottle form had been more thoroughly examined and correlated to mustard. In the decades since Jones' publication, few references have mentioned or discussed the discovery of mustard bottles and very few Loyalist homes have been excavated in Ontario. The lack of other sources identifying mustard squares in artifact collections may be due to ignorance or the researcher's lack of time and resources spent on reconstructing glass vessels. Comparative data from within the town or vicinity of Niagara-on-the-Lake has proven to be somewhat difficult if not impossible to find. Most of the original Loyalist homes in Niagara were destroyed when the town was burned in the American retreat in December 1813. Many families did eventually rebuild homes on their lots, some of these even on the original foundations of the

destroyed structures and the majority of these properties have remained occupied since the early nineteenth century. As a result, there is neither much current archaeological data available to analyse nor is it known how much evidence from other contemporaneous households could yet to be discovered. At the time of writing, no other evidence of mustard bottles on domestic sites has been found in this region but it is likely that future archaeological work on early Euro-Canadian sites will yield some specimens. Furthermore, a review of similar sites of this time period suggests that there are few if any other sites in colonial Canada that have yielded square mustard bottles dating to the same period. The recovery of the mustard squares from the Butler site is notable because it appears to be the first time that these distinct artifacts have been associated with a non-military site despite its ties to a Loyalist family with a background in military service. This distinction is important because it expands this specific material culture marker for mustard to include domestic contexts from the Loyalist colonization of Canada.

Conclusion

Over the course of the eighteenth century, the spread of mustard cultivation throughout Britain and refinements to the manufacturing process helped the plant and its by-products achieve an appeal that transcended social classes. This is evident by its incorporation into recipes contained in household management literature, the development of a bottle that catered to individual portions and increased the ease of portability ensuring its commercial distribution and its importation to British colonies.

The two-ounce (28.4 ml) size bottles known from late eighteenth- and early nineteenth-century British fort sites in Canada probably originated from the personal effects of officers who could afford to buy such articles to supplement a bland diet. Mustard was not an expensive product but it was not included in the standard military stores unless specifically requested on personal account by those with the appropriate rank privilege. Extra condiments could have been purchased through self-provisioning before leaving England or by special order with a military merchant in North America. Later, the general population obtained it through local merchants.

The discovery of multiple mustard squares during the excavation of the Butler Homestead site, a United Empire Loyalist-period domestic site in Ontario, has now expanded the context from which such bottles were previously discovered. Given the time period and their cultural traditions, the Butler household diet would have been heavy in roasted and boiled meat. To have at least eight bottles stashed in their larder indicates how essential it was in their cooking. The general appeal of mustard is also reflected in the recipes found in Georgian household management guides.

The presence of mustard bottles – an item so specifically British and so strongly associated with the military – is an intriguing find on a colonial domestic site and speaks both to the heritage of the family and their traditions as well as an adaptation to a new life in a new land. It is both tantalizing and frustrating that the Butler family and, indeed, their community in Upper Canada successfully blur the tangible lines between military life and agrarian domesticity in a new colony. Perhaps then the only definite statement that can be declared is that when it came time to dine, the Butler family exhibited a keen taste for mustard at their table.

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