

Sustainability at The Brody Landfill

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Introduction

The present-day Brody Complex was home to the East Lansing landfill from 1907 until the 1940s, prior to the construction of The Brody Complex in 1955. Excavations near the present-day Brody Complex produced a large amount of well preserved glass bottles dated to the 1930s.

Many of these bottles, specifically milk bottles and canning jars were likely reused. As a sustainable practice, reuse is more efficient than recycling – the most common sustainable practice today. Eventual placement of these bottles in a landfill suggests a truncated reuse cycle. By comparing past sustainable practices to present day practices, one can assess whether MSU is truly more sustainable today. Using past sustainable practices to judge current ones can help us improve our efforts to become more “green”.



Collection of glass bottles from the 2008 Brody excavation

Terms

- Sustainability: of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged
- Reuse: repurposing previously used materials for the same or different function; more sustainable than recycle and requires less energy
- Recycle: using additional energy to reconvert old items into new items

Background and History

There are few historical records of the East Lansing landfill that once resided at the location of the present day Brody Complex. However, based on the bottles produced from the 2008 CAP archaeological survey, the landfill was most active from the 1920s-1940s. This date range lines up with fact that municipal trash pick up and disposal was only available in East Lansing after around 1915. The lack of evidence is not surprising since during this period of MSU and East Lansing growth, a landfill is not a pretty sight.



Aerial view of Brody Complex Construction, 1955. Image courtesy of MSU Archives and Historical Collections, onthebanks.msu.edu

During this time period, the attitude towards waste management began to shift and municipal governments began to provide waste management services. Earlier, waste was thrown into the streets, which made travel difficult and promoted the spread of disease. The solution to this problem was to move waste away from the public eye – to landfills. The era in MSU history, as defined by CAP, that this landfill was active during – phase IV: The Depression and WWII - was a time that saw an increase in sustainable practices out of necessity. MSU was producing their own food and funding community gardening programs. These programs were both to combat the need to ration food during war-time and to build social relationships. Further research into food science was conducted through a program called “Food for Victory” to find efficient ways to combat food shortages.



Group photograph of co-eds after picking vegetables during World War II, 1940s. Image Courtesy of MSU Archives and Historical Collections, onthebanks.msu.edu.

The post-war economic boom created a consumerist culture and subsequently, more waste. Many of the sustainable practices used during the war, including reuse, were lost and glass bottles that were once reused, like milk bottles and canning jars, were thrown away as American culture began to shift into the “throw away” culture that is known today.

Bottles at The Brody Landfill Site

Archaeological surveys of the Brody Complex conducted by the Campus Archaeology Program in April 2008 proved to be largely unsuccessful. However, a month later construction equipment revealed a trash layer that featured many complete bottles that were buried a few meters deeper than the original survey. The bottles produced from this site are mostly in excellent condition and were used to contain milk, alcohol, condiments, beauty products, fruit, soda, along with other uses that gives us a glimpse of what life was like during this time and how sustainable practices changed.



North wall profile from the 2008 Brody excavation featuring the bottom layer of trash.

These bottles were analyzed in 2017 to determine size, shape, makers marks, labels, and method of glass production. Reuse was common sustainable practice, especially for glass bottles. For example, dairy communities like MSU would give their empty bottles back to the producer to be cleaned and reused. Similarly, canning jars during this time were used to can and store food repeatedly. Although MSU does still supply some local dairy products, milk bottles have been replaced with plastic jugs and food storage has transitioned to plasticware. These bottles may have once been reused, but their eventual placement into a landfill may illustrate the cultural transition from every-day reuse to a “one-use” culture.



Lansing Dairy Bottle, 1924-1930s.



MSC Creamery Bottle, 1929-1940s.



Lansing Dairy Bottle, 1934.



Kerr Mason Jar, 1930s.



Jelly Jar, 1930s.



Condiment Jar, 1930s-1940s.

Sustainability Today at MSU

1988: Student activists petition the Board of Trustees to focus more on recycling, leading to a task force focused on waste reduction and the establishment of the Office of Recycling and Waste Reduction.

1990s: Recycling becomes more accessible to students with the implementation of drop off centers. In 1999, the student organic farm, similar to the student farms during WWII, is created by students.



Students working at the Student Organic Farm greenhouse. Image courtesy of the Student Organic Farm.

2013: Be Spartan Green Team, a volunteer organization, is established in an attempt to get students more involved in sustainable practices and sorting stations are introduced in almost every building and residence hall.

2015: MSU reports that 57% of their waste is diverted from landfills, exceeding their 30% recycling goal by 5%.

2017: Solar panels are built in covered parking lots and MSU completely stops using coal.



Covered parking solar panels, 2017. Image courtesy of MSU Infrastructure Planning and Facilities.

Discussion and Conclusion

Although MSU has taken initiative to be more sustainable, there is more to be done and a great way to do this is by looking at the sustainable practices of the past. Parameters for measuring sustainable practices on campuses vary but assessments typically factor in the ability to teach sustainable practices, commitment to sustainable research initiatives, and the implementation of green practices. MSU’s main focus has been on increasing recycling initiatives and decreasing energy use. During Phase IV of MSU’s development, sustainable practices were adopted out of necessity, and today we need to be sustainable more than ever. The bottles found at the Brody Site are a visual representation of a cultural shift that now must change if we are going to combat a growing global climate crisis. By most current day standards, MSU is sustainable but if we want to live up to the standards from the past, we must have a more well rounded approach.

References available upon request.