

How Has The Removal of Nixtamalization Impacted Mesoamerican Cuisine and Culture?

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Introduction:

Nixtamalization, first discovered by Aztec and Maya civilizations, is a process by which any corn or grain is submerged into an alkaline solution to turn the corn into a nutritious food. Corn is incredibly significant in Mesoamerican culture, going so far as being involved in creation stories, and Maya people identifying as “people of corn”. As tortillas have been shared around the world, they have lost their association with corn, and this has also led to the exclusion of nixtamalization. Tortillas, corn, and nixtamalization are all essential parts of indigenous Mesoamerican cuisine, but also to the culture and people. Without sharing indigenous practices and knowledge, culture is lost between generations and history is lost.



Figure 1: Map of Mesoamerica, highlighting the country of Guatemala



Figure 2: Dried corn, ready to be nixtamalized

Methodology:

- First, I made flour tortillas by using a store-bought harina (flour). My goal in making tortillas from flour, was to replicate how the average person might make tortillas if they had no prior knowledge about the history of tortillas or corn. I purchased a White corn Tortilla Mix by Quaker, and this mix was simple, as all I had to do was add water to make the mix and cook the tortillas on the stove
- To replicate traditional tortillas, I submerged 1lb of dried corn into a solution made up of water and calcium hydroxide to create an alkaline solution. The corn sat in the solution for about 17 hours, I rubbed the skins from the kernels (figure 2), and then I ground the corn through a hand-cranked grinder. Feeding the corn through the grinder turned the corn into a masa. To make the masa into the correct texture and to help bind it together, I added warm water slowly to ensure I didn't make the masa too wet and unable to be shaped. I then took small parts of the masa, shaped them into tortillas, and cooked the tortillas on the stove
- The main categories in which I was looking to see change between the two were smell, taste, and texture.

Findings:

- The flour mix created a masa that stuck to my hands while I tried to flatten them into tortillas, smelled like pancakes or batter, and overall felt like a dough like pizza or bread
- The nixtamalized corn created a masa that smelled very buttery, had the ability to bind together even before I added water to the mix, and didn't stick to my hands while trying to shape the masa into tortillas



Figure 3: Corn after nixtamalization, the skin peels and kernel softens



Figure 4: After nixtamalization, the corn is ground to a fine grain using a hand-cranked grinder

Discussion:

- The vast difference in smell, taste, and texture were astonishing to see, as were the difference of complexities in how the two are made. Making tortillas using the tortilla mix was much faster than nixtamalizing the corn myself, grinding it, making it into masa, and then shaping the masa.
- The quick-mix tortillas took less than 1 hour to create 12, whereas the nixtamalization took 17 hours, draining and sitting the corn to dry took 2, milling the corn took 2-3, and shaping took less than an hour. The quick-mix does not call for the same time and attention to create tortillas, nor does it act the same, so how can flour tortillas represent the culture of maize and nixtamalization?

Conclusion:

- Flour tortillas are unable to replicate the same taste, texture, and smell of corn tortillas and corn products because they lack the cultural importance of corn and nixtamalization and don't perform the same. The absence of corn tortillas or the history of corn from American classrooms directly impacts the way Americans interact with Mesoamerican cultures and cuisine. By pirating an essential food and tradition within Mesoamerican culture, the mass-production of tortillas negatively impacts “people of corn” and indigenous peoples, as it allows for sacred practices and history to be ignored and turned into something so insignificant, all it does is sit on a shelf and rot away. At large, I believe this also translates to a lack of indigenous representation in the United States.
- Tortillas cannot exist without corn, and corn cannot exist without nixtamalization.



Figure 5 : When combined with water, the grain turns into Masa (dough)



Figure 6 : Masa after being manipulated by hand into a tortilla

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