

Re-creating Ancient Egyptian Bread: An Experimental Archaeology Project

By: Ellen Durkee

Abstract

This project attempts to re-creating the taste of ancient Egyptian bread. It began with a successful attempt to create a sourdough starter. Emmer wheat, one of the main grains cultivated by ancient Egyptians, was used as the flour for the bread. The overall project to create ancient Egyptian bread was also successful. Further experiments would help achieve the goal of re-creating a more accurate style of ancient Egyptian bread by focusing on re-creating the conical mold it was baked in.

Background

Bread was a staple for ancient Egyptians. They used emmer wheat and sometimes barley (Bats, 2020, Samuel, 1999). This bread came in many shapes and sizes (Samuel, 1999), but one of the most common shapes was produced using a conical bread mold (Bats, 2020, Gamrat, 2019). Emmer wheat is a low-gluten grain (Bats, 2020), which differs from most modern wheat-based baking flours, which are high in gluten (Samuel, 1999). Tools similar to the mortar and pestle were used to remove the chaff, and then the grain moved to a grindstone to make the flour (Samuel, 1999). The archaeological record in Egypt includes many examples of bread preserved by the desert environment. Some bread was found in forts and homes, but many of the examples are found in tombs. There is debate over whether this bread is representative of everyday ancient Egyptian bread or is more of a symbolic stand-in, like clay figures of servants, because this bread is coarse, gritty, and full of chaff. The debate is leaning towards tomb bread being symbolic and not an example of everyday bread (Samuel, 1996).

Other Experiments

Previous experiments to re-create ancient Egyptian bread looked at the whole production of the bread, including the use of bread molds. Bats (2020) used extensive trial and error to determine that sand was likely used similar to how contemporary baking methods use oil to grease pans to make it easier to remove the cooked bread without breaking the mold, allowing it to be reused. Additionally, she determined that the low-gluten content of emmer wheat likely reduced the amount the bread rose, in contrast to modern high-gluten breads, and prevented the bread from breaking the mold as it expanded. She used black emmer wheat and a sourdough starter made from einkorn, another ancient grain that is similar to emmer wheat, as she did not have an emmer wheat sourdough starter. Samuel (1999) review of past experiments she had conducted, which included processing the emmer wheat into flour. She discovered it was not difficult to get a fine flour, but it was time-consuming. She also discovered making emmer wheat bread required extra water to get a workable dough. She reported she never produced a palatable bread.



The sourdough starter right before use



The dough after being mixed



The loaf right before cooking



The completed loaf fresh from the oven

Methods

After an initial unsuccessful attempt at this project, I tried again by following the instructions more precisely. I started by making a sourdough starter, following a recipe from marthastewart.com as precisely as possible, unlike my first attempt in which I replaced the suggested rye flour with barley flour, and all-purpose flour with einkorn and emmer wheat flour. Another change from my first attempt was to measure amounts by weight, in grams, instead of estimating equivalent volumes, in cups. Another change I made was to store my starter in a microwave, rather than on a table, to keep it from getting too cold. These changes were successful in making a working starter, as opposed to a bowl of flour and water infected with a pink bacteria. It even overflowed the jar I was keeping it in multiple times.

After the starter matured, I followed a recipe from savorthestbest.com (Boquist, 2021) to make the actual bread. I mixed my starter with emmer wheat flour, lukewarm water, and salt. Just as I did with the starter, I used grams to measure amounts, instead of cups and teaspoons like I did on the first attempt. I let it rise for six hours two separate times, instead of three hours two separate times like I did the first time.

Results

It rose beautifully and baked well with the exception of a lightly burned bottom. The crust tasted a bit like Grape Nuts cereal to me, and the inside was light and wheaty. People that tried it said that it tastes like whole wheat bread. It does not taste like sourdough, but this might be due to how young the sourdough starter was.

Conclusions

This project went well and suggests that emmer wheat can make a great-tasting bread. If I was to return to this project, I would want to try to use emmer wheat, either by itself or with barley, to make the sourdough starter. I would also like to give my existing starter more time to age. One more thing I would like to try would be baking it in a ceramic bread mold over a fire.



Cross section of the completed bread



Sources