

Ancient Grains and How to Make Flour at Home



Around 10,000 years ago, wheat was domesticated in the Middle East and became a dietary staple for the entire Mediterranean region. During the Roman period, the fertile Nile valley of Egypt became a major producer of wheat, much of which was shipped across the Mediterranean Sea to feed the growing Roman Empire. As one of its main grain suppliers, Egypt has rightly been termed “the breadbasket of Rome.”

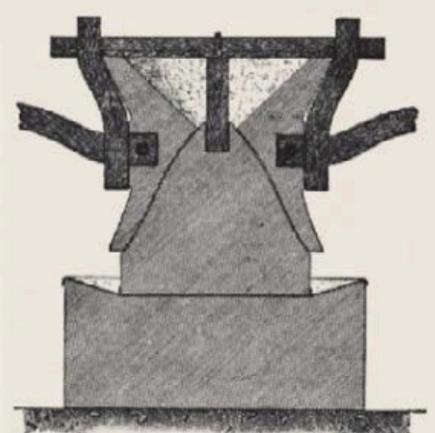
A mill, or *mola* in Latin, was needed to turn wheat grains into flour. The Kelsey Museum is home to one such ancient stone mill from a large villa near Boscoreale, Italy, just north of Pompeii. Most Roman villas had elegant living quarters, but many also had productive features such as olive groves, fruit orchards, and vineyards. This large mill was used to grind flour for bread to feed the villa’s wealthy owners and staff.

The mill consists of an hourglass-shaped stone that rests on a conical stone base. As grain was poured into the top of the mill, workers pushed a wooden frame attached to the upper stone, rotating it. The grain gradually fell between the upper and lower stones and the friction between the two surfaces ground it into flour, which collected in a channel below.



Drawing of a relief in the Vatican Museums showing a horse and a slave operating a grain mill (after Mau and Kelsey, *Pompeii, Its Life and Art*, 1899, fig. 212)

Section drawing of a grain mill (after Mau and Kelsey, *Pompeii, Its Life and Art*, 1899, fig. 211)



Today’s industrialized flour mills can manufacture hundreds of thousands of tons of flour every day. Additionally, flour is now produced from a variety of grains, nuts, and seeds.



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Did you know you can make your own flour at home using materials you probably already have? Follow along with this activity to learn how.

Supplies:

- Ziplock bag (gallon size recommended)
- 1 cup nuts of your choice
- Rolling pin
- Optional: store-bought flour

Instructions:

(It is recommended that children are supervised during this activity.)

1. Wash hands thoroughly.
2. Place nuts into a ziplock bag.
3. Remove as much air as possible and seal the bag.
4. Place the bag with nuts on a flat surface, such as a countertop. Using a rolling pin, crush nuts into a powder.

Reflection: After crushing the nuts, compare the texture of your homemade flour to store-bought flour. How does each type of flour feel? Do they feel similar or different? Why do they feel similar or different?

