

# sandbox

The "Sandbox" space makes available a number of resources that utilize and explore the data underlying "Secrets of Craft and Nature in Renaissance France. A Digital Critical Edition and English Translation of BnF Ms. Fr. 640" created by the Making and Knowing Project at Columbia University.

[View the Project on GitHub](#) cu-mkp/sandbox

## BREAD MOLDING RECONSTRUCTION ASSIGNMENT

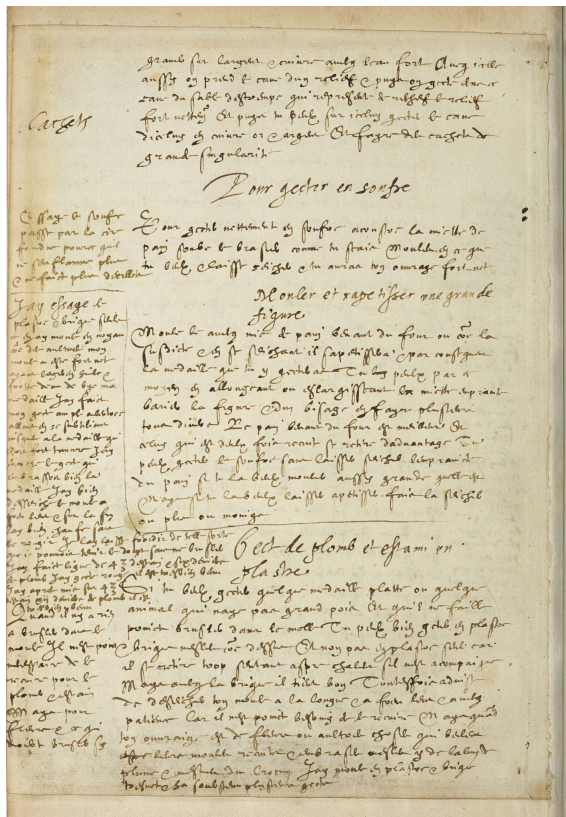
HIST GU4962: Making and Knowing in Early Modern Europe: Hands-On History  
The Making and Knowing Project, Columbia University  
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A downloadable version of this assignment: [\[PDF\]](#)

The 16th-century artisanal/technical manual, BnF Ms. Fr. 640, contains hundreds of entries that describe making processes and techniques from the Renaissance. These include instructions for and observations about painting, gilding, arms and armor production, plant cultivation, and making molds and metal casts.

Two unique entries from this manuscript describe a process for using freshly-baked bread as a quick mold into which wax or sulfur can be poured, creating a cast wax/sulfur object. Both entries are found on [folio 140v](#) - follow the link to review the full entries in *Secrets of Craft and Nature. A Digital Critical Edition of BnF Ms. Fr. 640*. Excerpts from the translations of these entries are copied below:

### Folio 140v



### Translation

#### For casting in sulfur

To cast neatly in sulfur, arrange the bread pith under the brazier, as you know. Mold in it what you want & let dry, & you will have very neat work.

#### Molding and shrinking a large figure

Mold it with bread pith coming from the oven, or as the aforesaid, & in drying out, it will shrink & consequently the medal that you will cast in it. You it can, by this means, by elongating and widening the imprinted bread pith, vary the figure & with one image make many various ones. Bread coming from the oven is better. And the one that is reheated twice retracts more. You can cast sulfur without leaving the imprint of the bread to dry, if you want to mold as big as it is. But if you want to let it shrink, make it dry, either more or less.

You are tasked with baking bread, loaves of which will become molds into which you will cast wax or sulfur. While modern bread is typically made with dry "instant" yeast, a common historical rising agent was a sourdough starter (another form

of living yeast). Some of you have been given sourdough starter which you can use for making the bread for the molds. Others may wish to explore creating their own sourdough starters at home (there are many online resources about how to do this safely). After looking into these options, you may logistically only be able to bake bread with dry "instant" yeast (and that is ok). Start experimenting!

The first step in your process will be to learn to bake bread. Eventually, you should follow an early modern bread recipe (see links to recipes further on in this document) to make your molds. As much as possible, try to think about (and research) what bread would have been like in the sixteenth century.

## Objectives:

1. To experiment at home with bread baking
2. To experiment at home with reconstructing the process of making molds from bread, following the entries in BnF Ms. Fr. 640.
3. To gain familiarity with the process of methodical interpretation of Ms. Fr. 640 entries, and the writing of an experimental protocol
4. To begin thinking about the nature of materials — what is bread as a material in the workshop? What was it used for in the sixteenth century? What properties does it have that make it useful? Does it fit into some sort of informal taxonomy of materials and properties? Today we take bread for granted as a food, but how might its uses in the workshop re-orient that understanding?

## Instructions for reconstruction at home:

*Note: your experience with the Historical Recipe Reconstruction will be useful to you in this assignment. Make use of the previous years' Reconstruction templates. Keep detailed field notes of your experiences.*

- Carefully read the bread molding recipes, "For casting in sulfur" and "Molding and shrinking a large figure," both on fol. 140v in Ms. Fr. 640.
- In your Field Notes, write an experiment protocol that lays out how you interpret the Fr. 640 recipes and the step-by-step process which you will follow in reconstructing them.
- When you have finished the first part of the experiment (i.e., bread molding at home), comment on anything you had to change in your protocol and why.
- You will need to choose an object to use as your molding pattern (what you will press into the bread to create an impression).
- Include your protocol and comments in your field notes about this process.
- **Have your completed molds ready for casting in the Lab during class.**

## A few tips:

- You are welcome to work alone or in groups of two.
- Sourdough starter: Best to keep the portion you are saving in the refrigerator between bread baking sessions. Do not use the entire starter for a single loaf of bread, but instead feed and divide it, always saving a cup or so for your next loaf.
- Start early with the experiment as it will take you some time to become adept at making bread, and you may need more than one try at the mold making. (You may also eat up some of your baking experiments!)
- For the molding pattern for your one-sided or two-piece mold, you will need to choose a relatively uncomplicated object, such as a key, flat shell, a large medallion or necklace pendant, as a pattern.

## Helpful sources on making sixteenth-century bread:

- [John Evelyn's bread recipes](#), including varieties of French bread
- The Food Timeline- Bread History (good bibliography): <http://www.foodtimeline.org/foodbreads.html#breadhistory>
- Early English Bread Project: <https://earlybread.wordpress.com/>
- The Recipes Project: <http://recipes.hypotheses.org/>
- The Wellcome Library has digitized nearly all its recipe manuscripts. You can search the library here: <http://wellcomelibrary.org/>
- Monumenta Culinaria et Diaetetica Historica

- Corpus of culinary & dietetic texts of Europe from the Middle Ages to 1800: <https://www.staff.uni-giessen.de/gloning/kobu.htm>
- Dutch Cooking History (with some English content): <http://www.kookhistorie.nl/index.htm>

## Helpful resources in *Secrets of Craft and Nature*:

*Secrets of Craft and Nature in Renaissance France. A Digital Critical Edition and English Translation of BnF Ms. Fr. 640*, edited by Making and Knowing Project, Pamela H. Smith, Naomi Rosenkranz, Tianna Helena Uchacz, Tillmann Taape, Clément Godborge, Sophie Pitman, Jenny Boulboulé, Joel Klein, Donna Bilak, Marc Smith, and Terry Catapano. New York: Making and Knowing Project, 2020, <https://edition640.makingandknowing.org/>.

- Le Pouésard, Emma. "Pain, Ostie, Rostie: Bread in Early Modern Europe." [http://edition640.makingandknowing.org/#/essays/ann\\_046\\_fa\\_16](http://edition640.makingandknowing.org/#/essays/ann_046_fa_16).
- Le Pouésard, Emma. "Bread as Mediating Material: Tactile Memory and Touch in Ms. Fr. 640," [http://edition640.makingandknowing.org/#/essays/ann\\_050\\_fa\\_16](http://edition640.makingandknowing.org/#/essays/ann_050_fa_16).
- Landsman, Rozemarijn and Jonah Rowen. "Uses of Sulfur in Casting." [http://edition640.makingandknowing.org/#/essays/ann\\_007\\_fa\\_14](http://edition640.makingandknowing.org/#/essays/ann_007_fa_14).
- Lim, Min. "To Shrink an Object: Bread Molding in Ms. Fr. 640." [http://edition640.makingandknowing.org/#/essays/ann\\_076\\_fa\\_18](http://edition640.makingandknowing.org/#/essays/ann_076_fa_18).
- Fall 2018 student work - [Resource: Breadmolding and Casting Slideshow](#) (Note: for additional help and resources, try following the Field Note links in the essays above and in the Slideshow)
- Spring 2020 Vassar Seminar project videos on Breadmaking: <https://vimeo.com/419949231> and Breadmolding: <https://vimeo.com/419940044>

## Optional exploration: the uses of bread in the early modern workshop

If you have time, search in other sources for other uses are made of bread in the workshop:

1. Alessio Piemontese, *Book of Secrets* (1555); various English versions on EEBO; French versions on Gallica; Italian versions... (For English: Search for Ruscelli, Girolamo, *The secretes of the reuerende Maister Alexis of Piemount Containyng excellent remedies against diuers diseases, woundes, and other accidents, with the manner to make distillations, parfumes, confitures, diynges, colours, fusions and meltynges. ... Translated out of Frenche into Englishe, by Wylliam Warde* (1558).
2. Hugh Platt, *The Jewell House of Art and Nature: Containing divers rare and profitable Inventions, together with sundry new experimentes in the Art of Husbandry, Distillation, and Molding* (London, 1594). EEBO
3. Cennino Cennini, *Il libro dell'Arte (The Craftsman's Handbook)*, trans. Daniel V. Thompson, Jr. (New York: Dover, 1960).
4. Vannoccio Biringuccio, *Pirotechnia* (1540), trans. Cyril Stanley Smith and Martha Teach Gnudi (repr., Cambridge, MA, 1966).
5. Theophilus, *The Various Arts: De Diversis Artibus*, ed. and trans. C. R. Dodwell (Oxford: Clarendon Press, 1986).
6. Benvenuto Cellini and C. R. Ashbee, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (Kessinger Publishing, 2006).

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This project is maintained by [cu-mkp](#)