The Making and Knowing Project, Columbia University Adapted from The Columbia Ancient Ink Lab Last updated February 2018 by NJR

Iron Gall Ink

Recipe:

Book Containing Divers Sorts of Hands, by John de Beau Chesne and M. John Baildon, and published in 1571 (from irongallink.org)

Rules made by E.B. For his children to learne to write bye:

To make common yncke of Wyne take a quart, Two ounces of gomme, let that be a parte, Five ounces of galles, of copres take three, Long standing dooth make it better to be; If wyne ye do want, rayne water is best, And as much stuffe as above at the least: If yncke be to thick, put vinegar in, For water dooth make the colour more dimme. In hast for a shift when ye have a great nead, Take woll, or wollen to stand you in steede; which burnt in the fire the powder bette small With vinegre, or water make yncke with all. If yncke ye desire to keep long in store Put bay salte therein, and it will not hoare. Of that common yncke be not to your minde Some lampblack thereto with gomme water grinde.

Adapted:

Ingredients:

- 20 ml white wine
- 5.85g powdered Aleppo galls (<u>http://shop.kremerpigments.com/en/</u> Item #37400)
- 3.5g iron sulfate (<u>http://shop.kremerpigments.com/en/</u> Item #64200)
- 0.07g gum arabic (<u>http://shop.kremerpigments.com/en/</u> Item #63330)

Instructions:

- 1. Crush whole galls by placing in double plastic bags and hitting with a hammer. Then use a mortar and pestle to grind these smaller pieces into a powder
- 2. Separately, dissolve gum arabic in the liquid (this will take some time but eventually all clumps will dissolve)
- 3. Add the powdered galls and the iron sulfate to the liquid/gum solution and mix until well combined
- 4. Strain the solution by squeezing through cheesecloth or muslin to remove gall solids. Use the strained ink!

Carbon Ink

Ingredients:

- 30 ml water
- 3g gum arabic (<u>http://shop.kremerpigments.com/en/</u> Item #63330)
- 3.67g lampblack (furnace black, soot) (<u>http://shop.kremerpigments.com/en/</u> Item #47250)

Instructions:

- Create a 10:1 water to gum arabic solution: Dissolve gum in water so there are no lumps stir, leave for a few minutes, stir again, push lumps of gum arabic against side of container to disperse. Repeat until there are no lumps. This may take some time as the gum "swells" in the water, but eventually it will become lump-free.
- 2. Incorporate the lampblack into the gum arabic solution until homogeneous. Use the ink!