

## **Beginning Pen and Ink Minnesota School of Botanical Art Materials List (Gildensoph)**

Pen and ink is an important traditional medium used in scientific illustration. Students will learn about the history of its use by biologists (who hire botanical artists to make these illustrations) and will also learn about the materials and techniques used to create ink drawings. These include the use of line, hatching, and stipple to create form using a variety of nibs and permanent ink. A series of exercises using different nibs will help students transition from graphite to pen and ink.

You should have some experience with drawing plants, as graphite techniques will not be covered in this class.

This is an online course – so you'll need a good internet connection and a computer or tablet. Please download the Zoom app if you don't already have it. We will send the link just prior to the start of the session.

These can be purchased at Wet Paint on Grand Avenue in St. Paul, or other local art supply stores.

### **Pens and nibs (dip pens/technical pens/fiber-tipped pens) – I use a combination of dip pens and Rotring Isograph pens – but you are welcome to experiment with any and all of these pen types)**

- **Dip pens and nibs (these need a separate source of ink)**
  - Hunt nibs 102 and 104 and appropriate nib holders
  - You may also want to try a Tachikawa G nib or T-99 Maru nib (with appropriate holders) and/or some mapping nibs (Nikko Manga nibs and holders)
- **Ink and ink holders – ink should be black and pigment-based (not dye-based)**
  - Permanent black ink – good brands are Higgins (Waterproof Black India Ink or Black India Pigmented Ink) and Dr. Ph Martin's (Black Star Matte)
  - Small capped bottle with small dish/putty to hold it in (I'll give these to you – we can meet (masked) outside at the school (or someplace else that is convenient) one day for this.
- **Technical pens (different brands exist – I like Rotring Isograph pens, but Koh-i-noor and Staedtler (Marsmatic) also make technical pens). Each brand makes sets and individual pens for purchase)**
  - A variety of pens is needed, as each has a different nib size. These are expensive and need to be carefully looked after. You can get them as sets, or as individual pens. The Isograph pens have refillable cartridges, so you'd also need a small bottle (23 ml) of Rotring Rapidograph/Isograph Ink. You can also get **Rotring Rapidograph** pens – these have ink cartridges, so no need to mess around with refilling ink holders.
  - Amazon carries both Isograph and Rapidograph pens from Rotring – in sets – with ink/cartridges included
    - Nib sizes of 0.18 mm (if possible), 0.2 mm, 0.3 mm, 0.5 mm (these last 3 come as a set with either cartridges or a 23 ml bottle of ink from Amazon)
  - **Fine-tipped pens with nylon tips – most are disposable – make sure to get ones with permanent black ink. These are relatively inexpensive (although the tips do wear out)**
    - These also come in sets
      - Brands used by botanical artists include SakuraPigma Micron (disposable), and Copic Multiliners. Copic makes disposable pens and also makes refillable pens (Copic SP) which allow you to replace the ink cartridge and the nib – without having to replace the whole pen.
        - Nib sizes range from 0.2 mm (called a 005 pen for the Pigma brand) to 0.8 mm (0.5 mm) – this is a good range for us

**Drawing surface – needs to be very smooth and acid free (archival quality)**

- Strathmore Bristol, 500 Series, Plate Finish, 9” x 12” or 11” x 14” (can be cut for smaller drawings)
- You can also try, if you like, using a drafting film such as Graffix DuraLar, 0.005 two-sided matte film, 9” x 12”

**Other materials needed:**

- Chamois (small piece) or small piece of sponge for wiping your dip pen nibs (not needed if not using dip pens)
- White cotton glove with fingertips removed – you can get these inexpensive gloves at drug stores or online – they protect the surface of your drawing from the oils in your hand
- Pencils for drawing – 2H, H, B
- Erasers – white plastic eraser (ex: Tombow Mono), kneaded eraser, and Tombow Mono Zero round (or rectangular)
- Ruler – clear plastic is great – Wescott makes good clear rulers – I like those that have both inches and centimeters on them. If you already have a metal ruler, this is fine to use
- Tracing paper 9” x 12”
- Small tube of white gouache paint and synthetic round watercolor brush (number 1 or 2)
- If you’d like to try these for fixing errors – Sakura Gelly Roll Classic pens with white permanent ink (nib size 05 fine point)
- Light box (if you have it) or a nice bright window

**Good resources**

Holmgren, H. and B. Angell. 1987. *Botanical Illustrations: Preparation for Publication*. Systematic Botany 12(1):181. Out of print – but you can search for it and may find a downloadable pdf.

Morrish, S. 2021. *Natural History Illustration in Pen and Ink*. Chapters 1-6. Published by The Crowood Press Ltd. ISBN: 978-1-78500-923-5

Tyrrell, C. 2022. Botanical Art and Artists website: Botanical Illustration Tips: Pen and Ink. <https://www.botanicalartandartists.com/pen-and-ink-tips-techniques.html>

Wooden, C and R. Jess. 2020. *Botanical Art Techniques: A Comprehensive Guide*. Part 1: Drawing Botanical Subjects in Black and White – focus on Pen and Ink section (pp 97-133). Published by The American Society of Botanical Artists. ISBN 978-1-60469-790-2