

Casting weekends at the Northern Districts Lapidary Club

I. Workshop organisation

1. The casting workshop will run for two consecutive days over a weekend). Participants must be able to attend both days.
 - a) A maximum of 10 participants will be planned for and a maximum of 2 novices will be allowed (unless approved otherwise by the instructor).
 - b) The workshop costs are \$25.00 per participant (including the investment powder but excluding purchases of wax items, silver, etc., available from the NDLC shop).
 - c) Participants not having at least a basic tool kit (refer to the list below) will not be admitted.
 - d) All participants will be asked to be punctual, as to avoid holding up all others. All participants will be asked to adhere to the requests of the instructor.
 - e) The instructor will not tolerate any unsafe practices and / or unsafe equipment.
 - f) It is advisable that participants have already an idea what to cast and bring e.g. natural items like leaves or gum nuts, wax models or commercial models, cotton lace items, etc., to sprue.

II. Day 1

2. Saturday will start at 9 am sharp with the induction, covering the safety hazards and the casting item requirements.
3. After selecting a pot, all participant will be guided to organise their models for casting, then completing the casting tree. Novices will get any advice needed.
4. The instructor will examine casting trees in progress as required and / or requested. All completed trees will be examined prior to investment pouring.
5. Lunch will start at approx. 12.30 pm. All participants must aim to have all work completed by then.
6. At 1:30 pm, preparations for investment pouring will start, the investment pouring itself will start the latest at 2 pm. Participants will be asked to volunteer for tasks.
7. The completed pots must settle overnight.
8. All participants must calculate the weight of their silver (gold) required and place the silver (gold) into cups (best results being achieved with a total silver weight below 100 gram, the absolute maximum which can be used 160 gram).
9. The fee for the workshop plus any money for wax / shop items purchased will be collected. Day 1 should finish at approx. 4 pm.

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III. Day 2

10. The instructor will place the pots into the kilns, increasing the temperature of the kilns gradually, so the models burn out completely (hence “lost wax casting”).
11. The instructor will install and check the centrifuge and organise the firing gear.
12. The participants are not required to be present until the firing starts at 2 pm sharp but all are encouraged to meet for lunch at 12:30 (and discuss the casting process).
13. One by one, a silver (gold) load will be placed in the crucible and molten, the corresponding pot placed into the centrifuge, which will then be triggered to spin.
14. After a waiting period, every participant will pick up his / her pot and plunge it into the prepared water bucket, in which the investment powder will shoot out sideways.
15. There is time allowed to cut cast pieces off the tree and to scrub them clean. Nevertheless, there will be no time to polish the pieces. Day 2 should finish at approx. 4 pm as well.

IV. What to bring to the casting workshop (a comprehensive guide, you may not use all, the crucial items are in bold below).

- a) A cutting board.
- b) **A tripod & mesh (or stable burner housing), a methanol burner and a wax melting cup (with handle) or electric melting pot.** Note: The melting arrangement must be safe / stable.



- c) **Various dentist tools / wax sprucing & carving tools.** The most critical one is a **Lecron** (pictured below). **Warning:** Without having at least basic tools, the instructor will not accept a participant. **Note:** These tools are **not** available in the club.



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- d) A battery driven wax melting pen (e.g. a MaxWax); not mandatory but very handy.
- e) **A thin needle (in a cork to ensure safety).**
- f) A pen, a sharp pointed texter, and notice paper.
- g) **Bristle brushes (narrow ones and wider ones),** to be used to layer wax on the backs of leaves or other fine objects.
- h) **Your desired models,** e.g. leaves, seeds, nuts, wax mould models, etc.
- i) **Silver / gold** (in small, clean pieces) at least 50% new. Some silver **can be purchased** from the shop.
- j) Wax sheets, sprue sticks, sticky wax, mould wax, melting wax, etc. **All these can be purchased** from the shop.
- k) Plastic tweezers.
- l) A calculator and flat-bed scales (capacity at least 200 gram, resolution at least 1 gram).
- m) **A scalpel** (or a very sharp, pointy knife).
- n) Wooden dowels for rings (approx. 10 cm long, diameter as per the rings).
- o) Moulds for wax models. The instructor may make some available.
- p) A small water bowl, if you want to pour wax into water. The club will have one available.

V Photos



Completed tree, mounted to button



Pouring the investment



Pots come out of the kiln whilst the crucible is fired



The cut off models are cleaned in the water buckets