

# THE FACTS



## OCCUPATIONAL AND ENVIRONMENTAL SAFETY

### Etching

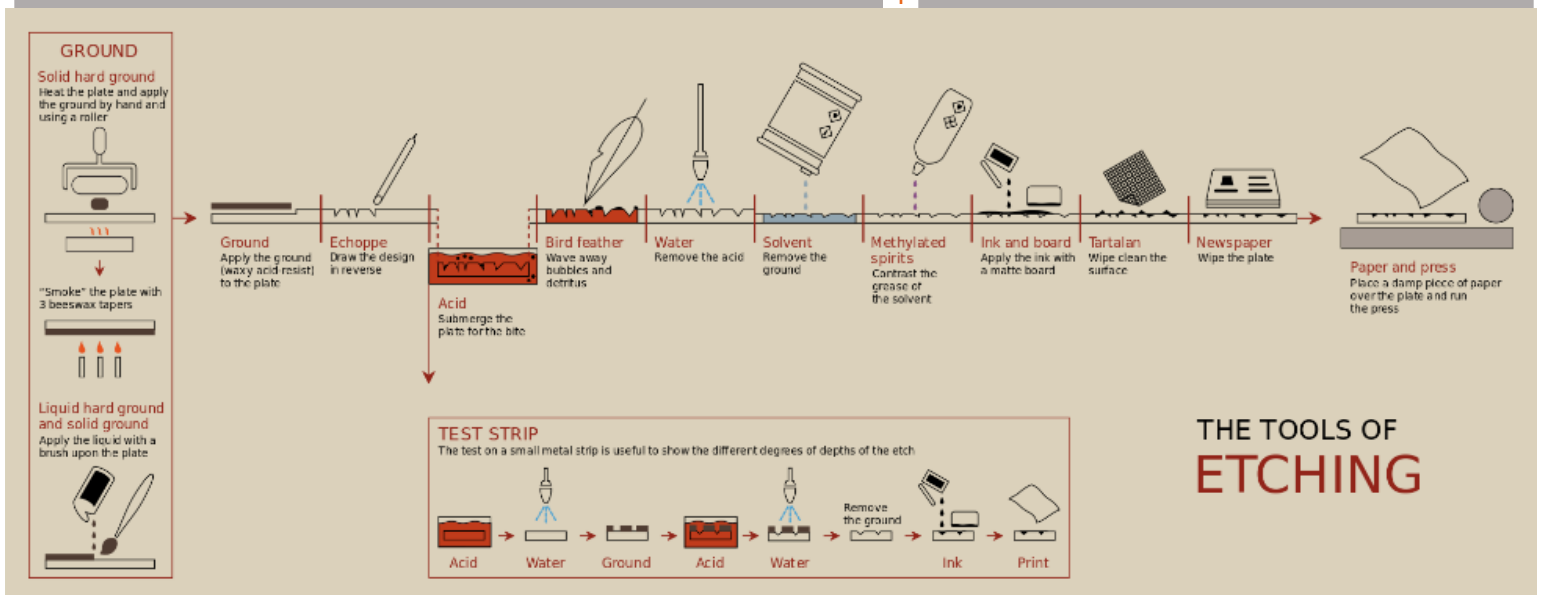
**Etching** is traditionally the process of using strong acid or mordant to cut into the unprotected parts of a metal surface to create a design in intaglio in the metal.

#### Hazards:

- Nitric Acid etching releases the respiratory irritant nitrogen dioxide, which has poor odor warning properties.
- Large acute overexposures may cause pulmonary edema (chemical pneumonia) and chronic exposure may cause emphysema.
- During the etching process, flammable hydrogen gas is produced.
- Concentrated nitric acid is a strong oxidizing agent and can react with other chemicals, especially solvents or organic compounds, to cause a fire.
- Rosin dust is combustible and may also cause asthma and dermatitis.

#### Safety:

- Provide and review safety data sheets for all chemicals used in the dark room.
- Application of rosin and acid etching should be done with local exhaust ventilation.
- Safety glasses should be worn when diluting the nitric acid while etching.
- Rosin boxes should be explosion-proof and you should use spark-proof metal cranks, explosion proof motors or compressed air.
- Never eat, drink, or smoke in the studio and always wash your hands before doing these activities.



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