ABOUT BLOOMING

Blooming is a whitish haze that can appear on the surface of a painting.
The word blooming is used in 3 different meanings:

1. Varnish over oil painting (this is the most common meaning).

- Cause: Moisture on the painting (or in the varnish) during varnishing.

2. When encaustic has been exposed to extreme cold (as in unheated studios in winter).

- Cause: Unsaturated hydrocarbons in beeswax migrate to the surface and crystallize forming a whitish haze.
- Remedy: This haze can only be removed by heating the wax. This heating can be done gently with warm compresses or gentle air heat, but it is still tricky to do on a painting.
- Prevention: The addition of resins, or waxes that contain saturated hydrocarbons. These include damar resin, paraffin or microcrystalline wax. The saturated hydrocarbons solubalize the unsaturated hydrocarbons of the beeswax and prevent the blooming that occurs from cold. The amount to be added should depend on certain limitations. Damar resin: not so much that it hardens the wax too much and makes it too brittle
- Paraffin: should be avoided because it is unstable and has no tack
- Microcrystalline: depends on softness and melting temperature (therefore similar limits to resin)

3. When encaustic has been made from chemically bleached beeswax.

- Cause: The free fatty acids that are created in chemical bleaching can react with free calcium in certain pigments, such as alizarin crimson and ivory black.
- Remedy: The haze is easily removed from a smooth surface by buffing it down. It is more difficult on a surface where there is texture.
- Cure: Use of less refined wax when possible. Otherwise, the use of filter-bleached or sun-bleached beeswax.

ABOUT BLEACHING

Refining of beeswax

Refining ranges from simply straining out foreign particle matter to filtering out darker colorants to bleaching to a milky white color.

The more the beeswax is refined, the more the physical and chemical complexity of the wax is broken down. This may cause the wax to become more reactive with some pigments and to lose some of it's structural integrity.

Some refinement is necessary to lighten the color of the wax and prevent interference with the color and tone of the pigment.

When at all possible we use beeswax that has been refined as little as possible.

Bleaching of beeswax

Bleaching is done in 3 ways:

1. Chemical - beeswax is exposed to hydrogen peroxide (or some other chemical) which oxidizes the remaining colorants in the wax. In some sources of beeswax the oxidation is reversible, and some of the coloration can return to the wax. Chemical bleaching also hardens the beeswax and creates free fatty acids that are reactive with certain chemicals in pigments.

2. Sun bleaching is done by exposing thin shavings of wax to the sun. This is a very gentle process, but is very expensive and rarely done today.

3. Filtering through activated carbon removes colorants from the wax. It is more gentle than chemical bleaching and leaves the wax much less reactive. We use this on all colors and mediums.