MAKING YOUR OWN
OIL COLORS

How to prepare and grind pigments
to make oil paint

NATURAL PIGMENTS LLC
WWW.NATURALPIGMENTS.COM
COPYRIGHT 2007 ALL RIGHTS RESERVED
INTRODUCTION

WHY GRIND pigments into paint? Why not simply mix them together with a palette knife? There are two basic reasons for doing so: To break down agglomerates of pigment particles and to evenly disperse pigments into the paint. Most artists are aware of the need to smoothly mix pigment with a binding medium, but few are aware of how breaking agglomerations of pigment particles can also improve the saturation of the paint color. Fewer still know about the possibilities that grinding pigments afford for altering the visual appearance of pigment in paint.

Dispersing pigment into a paint binder with a muller on a flat surface helps to breakdown agglomerations of pigment particles that have clumped together due to moisture and other weak binding forces. This helps to not only make the final paint smoother, but improves on the opacity and color of the paint. However, it is a common mistake to think that the force of grinding actually grinds pigment particles into smaller sizes. Greater mechanical force must be applied to do so. One way to do this is with a mortar and pestle. A pestle directs the entire force to a single point whereas a muller applies the spreads the same force across its flat-bottomed surface. In addition, the pressure applied to the concave surface inside a mortar creates greater forces to break the particles into smaller ones. The action of grinding in a mortar can reduce the particle size of the pigment and, in some cases, substantially alter its color.

Not all pigments improve in color and appearance by being ground to a very fine powder and then mixed with a binding medium. For example, the natural mineral malachite loses its color saturation the finer it is ground.
TOOLS NEEDED TO MAKE PAINT
For convenience, Natural Pigments has put together a PAINT MAKING KIT to give you the tools and materials you need to get started. The table on page 4 lists all of the tools needed to make your own paint.

PREPARING THE GRINDING SURFACE
The grinding surface must be roughened before it is usable for dispersing pigments in water or paint binder. You will need about 15–20 minutes to prepare the surface for dispersing pigments. Here are the steps you should follow to prepare the surface:

STEP 1: Place the grinding surface on a firm support such as a countertop or heavy table. If you are using glass as your grinding surface, you may find it helpful to put a damp white washcloth or a kitchen towel beneath the glass to stabilize it while grinding.

STEP 2: Pour a small amount of silicon carbide onto the surface. About one teaspoonful will be fine to start with. Add water to the silicon carbide a drop at a time to make a paste.

STEP 3: Mix the water into the silicon carbide to make a paste the consistency of toothpaste.
STEP 4: Place the muller onto the small pile of silicon carbide paste and begin moving it in circular motions extending to the edges of the surface. The corners of the grinding surface do not need to be roughened. Continue to grind with this motion for 5 to 10 minutes.

STEP 5: When you have completed grinding the surface, visually inspect it to see if it has been roughened by holding it up to a light at an angle. If the surface was smooth and shiny to begin with, you should notice a matte appearance where you have been grinding.