



The execution of a panel painting involved a long and complex process. Understanding of this process has been deepened by modern technical analysis and X-radiography, allowing for a close examination of the materials and techniques used by the artist. The basis of our knowledge, however, is a 600-year-old source: **around 1390**, the Italian painter **Cennino Cennini (ca. 1370–ca. 1440)** composed a treatise on the art of painting called *Il Libro dell'arte*, **The Book of Art**, describing in detail the following steps.

A seasoned plank—one that had been allowed to dry out for some time—was layered with several coats of size, a glue made from animal skins. In Italy, the planks used for panel paintings were most often made of native poplar, a widely available wood that was, however, soft and vulnerable to warping. A piece of linen soaked in size was often laid over the front of the panel to conceal any surface flaws. Over this, coats of gesso were applied. Gesso, a mixture of powdered calcium sulfate (commonly called gypsum) and animal glue, provided the ground for preliminary drawings.

When the underdrawing was complete, the panel was ready for gilding. Areas to be

gilded were prepared with a layer of **bole**, a reddish clay that provided an adhesive surface for fragile gold leaf. The gold leaf was made by pounding a small amount of gold into thin sheets, which were then applied to the panel with great care using a tool called a gilder's tip. The gilded surface was rubbed with a hard-tipped instrument to smooth and polish the gold leaf, a process known as burnishing. After additional decoration was incised or "punched" into the surface, the panel was finally ready to be painted. **The medieval artist used pigments tempered in egg yolk, or egg tempera. This medium produces a brilliant, pure hue.** Ultramarine blue made from **Lapis Lazuli** from Afghanistan was used for Madonna's mantle.

For large church altarpieces, it was necessary to join together independently painted panels with an elaborate frame. Usually, the Madonna and Child with saints were shown on the main panels, and narrative episodes depicted in a strip at the bottom (the predella). Small panels for private devotion sometimes had wings so that they could be closed.