**Milling Hardwood Panels**

By Peter Arguimbau, 2009

After purchasing a portable mill and convincing local landscapers to leave me the hardwood trees in long lengths, I began milling panels for painting. Through milling hardwoods I’m working to produce a true Flemish panel. In order to complete the process of Flemish Technique, I make my own rabbitskin gesso grounds to control the rate of absorption. I grind my own powdered pigments and cook varnish mediums to control all parts of the painting process.

     Modern methods speed the growth of trees allowing them to be cut younger. Fast drying in kilns for processing veneers have rendered lumber and plywood unsuitable for painting.  Not even plywood veneers hold up against checking. The safe solution for artists today is composite board, in order to resist checking and cracking. The traditional Flemish panel was made of oak or poplar. As art progressed other supports were used for painting, such as: copper, slate, silk, linen and even paper.

White oak panels are superior because they don’t have as high tannin levels as red oak, and only require a thin lead and linseed oil gesso coat to produce an isolation. Red oak is full of tannin which must be treated heavily to maintain stability from cupping. Poplar is a favorite because of its widths, and its straight grain makes an excellent isolation with gesso.

     The Flemish procedure began with submerging the logs in a river bed for two years to draw out the tannins, and were then quarter sawn. The truest planks are selected and passed through a 20” planner, until a smooth surface is achieved. A quarter sawn log is cut at a 45 degree angle to the heart, helping to prevent cupping and splitting as the planks dry. Larger widths are planned to thicker panels and smaller panels of under 12” wide are planned to a 1/4’’ thickness. The planks are stacked and separated by 1” strips for air circulation and covered in the shade for six months to dry. The truest planks are selected and planned, until a smooth surface is achieved. Larger widths are planned from half an inch to two inches and glued with casein glue to form large panels.

     These planks were then coated with an iron sulfate solution on both sides and dried.  The iron sulfate is absorbed in the pectin layer of the grain so as to make the sap (resin and vital solution) inert, pickling the wood from twisting, cupping and moving. The finest panels are selected and coated with several coats of rabbit skin glue gesso. The panels are sanded following each coat and finally sealed and toned with gesso.

Peter prefers Rubens’ process of toning a light yellow ocher into the gesso to refract light through the panel, thereby creating luminosity in the shadows. The quality of these panels is elevated by the process of forming a proper foundation.