

## Diane Gilliam: History of Stained Glass:

Before recorded history, people discovered how to make glass by melting silica (sand) to extremely high temperatures. They discovered that adding a flux like soda ash would enable them to make sand melt at lower temperatures and that mixing metallic salts or oxides into the mixture produced glass with rich, translucent colors. Gold produces striking reds while cobalt makes blue. Silver creates yellows and golds, and copper makes brick red or green.

At first, glass was so rare and valuable that it was used only for small objects like jewelry and goblets, but as the manufacture of glass became more sophisticated, its uses expanded. During the Middle Ages, stained glass windows were created for cathedrals. Artists cut clear or colored glass to fit a design and then used a brush to paint on details in pigments. The pieces were joined using "came," channeled strips of lead shaped like an H or U.

In the late 1800s, Louis Tiffany developed the copper foil technique. Instead of using lead came, he wrapped the edges of his glass pieces with a thin, adhesive backed copper foil, then soldered the pieces together. This allowed him to create intricate, flowing patterns for windows and lamp shades.

Diane Gilliam uses both the lead came method and the copper foil technique in her stained glass artistry, depending on what she is making. Thanks to a resurgence of interest in stained glass art in the past thirty years, she has access to a wide variety of "art glass."



Unlike common window glass, which is as perfectly smooth and flawless as possible, art glass is intentionally imperfect. Companies like Spectrum and Uroboros create sheets of colored and variegated glass using the antique methods of glass blowing or methods of rolling glass that simulate the look of antique glass. Visual excitement is created by the textural waves and striations, random seeds (air bubbles) and other natural effects. Gilliam searches through sheets of art glass to find the perfect piece for her current project. Several years ago she bought three crate of glass weighing a ton apiece from a glass producer in Texas that went out of business, so she can do much of her glass "shopping" in the glass bins in her own studio.

