



Harmony Tree

Dale McEntire



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Oak, Cast Glass, Steel, Brass

The origination of this work of art began through a series of conversations with the Tryon Presbyterian Church Donor Recognition Committee in the fall of 2017. The committee members requested the sculpture represent the diversity and commitment of the church. I am grateful for the opportunity to create this artwork for my community. My inspiration and concept were based on traveling along a path in the forest through a cathedral of trees. I extend my gratitude to the collaborators of this project, craftsmen Dave Fisher and Paul Santini, whose skills, friendship and support helped make this vision become reality.



Preparing the Drawings and Layout

The first step of this project was to convert small drawings to scale for the full size template. We used an "old school" projector to trace the image on craft paper on a large wall. Each limb was color coded to guide the dimension of the design. These initial planning stages outlined the piece, while allowing for further refinement as the process moved forward.

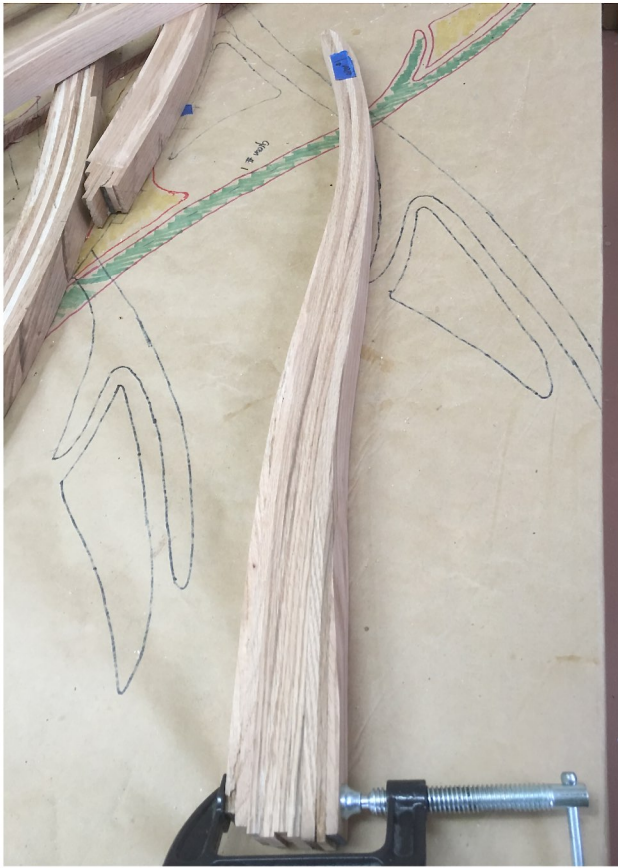




Creating the Tree Form from Local Wood

In my experience as a sculptor, collaborations often bring insight and imaginative possibilities. Dave Fisher's experience as a finish carpenter and boat builder informed the process of building the trunk, limbs and branches. Trees from our community were cut, sawed and planed by hand. Dried white and red oak, originally 2" x 6" became the foundation of the tree trunks and limbs. In order to laminate the wood, 1/4" strips were ripped with eight strips forming each trunk and limb. To establish the flow of the design, the strips were glued and clamped four at a time and bent around blocks secured to the work table. Two sets of the four laminated pieces were then glued and clamped a second time. The mixture of the two types of oak added character and interest.





Refining and Assembling

Each piece was carved down to create the tapered design of the sculpture. An electric grinder with an Arbortech blade, a skill saw, electric planer and hand tools were used to achieve the refinement of each trunk, limb and branch. After several weeks of gluing, clamping and shaping each completed section was assembled by joining them on a flat plane.



Additional strips were glued into the intersections that we anchored with glue and screws. Each limb and branch intersection was carved to create flowing movement. The cathedral arc was achieved as the three-dimensional form took the shape of the "*vesica pisces*" design in the center. Once the tree forms had been created, my attention turned to modeling the clay for the glass elements.





Creating the Models for the Glass Sculptures

The glass casting process is labor intensive with multiple steps. I created sketches of each abstract leaf for the design of the hand built clay models. Modeling with clay is an additive process, unlike carving. Working with clay allows for editing and the opportunity for texture and designs within the shapes. A dam wall was built around each model to contain the mold mix. This reservoir also allows for glass shrinkage during the firing process.

Pouring the Mold Investment

A silica, plaster and water formula made up the mold recipe. This creates an investment mixture that sets up very quickly, so attention and timing are key to pouring successful molds. Small amounts were mixed in order to capture the detail of each clay model. The molds were left overnight to cool and stabilize.







After the investment molds dry, the original clay models were removed from the underside of the mold. The majority of the clay was pulled directly from the mold, while the detailed areas were carefully cleaned with small tools, brushes and water. The molds were then dried again in the sun to remove as much moisture as possible. Then the creative process of color begins with the glass frit, which is made from crushed and magnetically cleaned glass sheets. These pieces were cast using the "Pate de Verre" method, an ancient glass working technique. The term translates from the French "paste of glass."



Casting the Glass

The selected glass frit colors are sifted together and carefully placed in the molds. Bullseye glass was used to create the desired opaque and transparent colors, with a range of hues. I used a variety of frit ranging from powder to larger chunks the size of a small pearl. The molds are filled to the top of the reservoir with the glass frit, as it will shrink about 30% once fired in the kiln. The firing process varies, depending on the object size, thickness and shape. The kiln is programmed in stages, with differing temperatures and timing. There are usually seven to eight stages in glass firing, bringing the kiln up to 1250 degrees for the full fusing temperature. The annealing stages are programmed so the glass is slowly cooled. The kiln program is complete after the 48-52 hour firing process and is left to cool to room temperature for 24 hours.



The molds are then removed from the kiln, displaying the fire polished back side of the piece. Only after the the molds are carefully broken away from the fired glass do you see the front side of the pieces. The removal process of the mold material from the glass reveals the true color and detail.





Finishing the Wood Forms and Design

The individual wood forms were completed with a final sanding and finished with a stain and tung oil mixture. A coat of paste wax was then rubbed into the wood for a protective coating. I then worked on the placement of the individual glass elements and positioned them to create a harmonious effect.



Securing the Sculpture Elements

In sculpture, the fitting, anchoring and joining of the different media is an important part of the process. In the "Harmony Tree" sculpture, we determined the careful alignment of the wood and glass at the points of connection. The wood and glass were drilled for the brass pin rods at three connection points so they could be inserted and epoxied in place.

Mechanics of Installation

In preparation for installation, the team made several trips to the church to calculate the sculpture placement and wall anchoring brackets. Machinist Paul Santini designed and manufactured the hardware for securing the sculpture. Brackets were designed to allow for slight adjustments as the individual pieces interlocked as they were mounted to the wall. The main trees were also bolted to a wood and steel base that was designed to anchor to the floor.





Installation Day: May 11th, 2018



Transporting and Installation

After the sculpture was carefully packed, loaded and transported to the church, the team began the placement and installation. The six month creative process revealed the final presentation of "Harmony Tree." The original inspiration remained rooted in the diversity and commitment of the church, while inviting the evolution of collaboration and creativity.



Interlocking and securing the tree forms

Symbolism

The geometric shape "*vesica piscis*," where two circles intersect to create a fish shape, is found throughout Christian history. It represents the intersection of the realms of the divine and matter, a reference to Christ. The twelve abstracted leaves portray the disciples of Jesus. Each leaf has unifying qualities revolving around the sun. This central circle is symbolic of the light and teachings of Jesus. My intention was to create a work that represents universal harmony, realized through the love and wisdom we share with one another.





Dale McEntire

A native of Western North Carolina, Dale has been involved in the visual arts since his training at Mercer University and has continued to evolve as an artist through private studies in the U.S., Europe and training at Penland School of Craft. A movement of painters and sculptors identified as "Nature Symbolist" has inspired him to convey the spiritual essence of nature in his art. Dale produces both oil and pastel paintings and sculpture (stone, steel, glass, wood) out of his studio in Saluda, North Carolina. For the past several years Dale has been selected to participate in city sponsored public art events and outdoor sculpture shows. His work is available from his studio and in select galleries.

Tryon Presbyterian Church

430 Harmon Field Road

Tryon, NC

Original Architects:

Shannon Meriwether
and Holland Brady