

CIRCULAR OBSESSIONS



Bohr

Mixed Media Series
In Glass, Metal & Wood
by Jim Boles



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Circular Obsessions is a sculpture series focusing on media in-the-round. From lathe turned objects to torch-worked glass spheres to cast bronze hemispheres, the circle and the sphere are the central motif revealed in continuously changing form, texture, color, and media.

This playful mixed media series is the creation of Jim Boles who works out of his studio in Savage, Minnesota. The simple forms well executed are tacit expressions of technical prowess. The works reveal a flow of design and execution where each media complements the other. A form in one media often serves as the casting mold of another

which is then fabricated into a visual whole.

The skills needed to execute these works is considerable. The primary ones are wood turning, glass casting and fusing, torch-worked glass, glass polishing, mold making, bronze casting, general metal work and finishing, copper plating, sand blasting, metal leafing, wood carving, and general wood working skills.

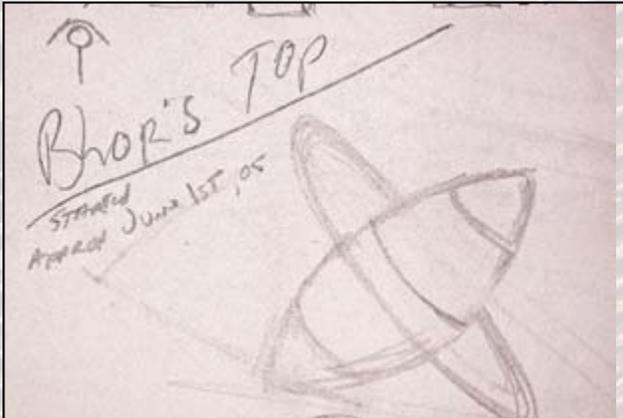
Jim usually starts with a series of thumbnail sketches which evolve over time into detailed drawings, often to scale. The lathe is then used to prototype the forms. The media for each section is chosen and sometimes found objects find their way into the design stage.

It may take as long as three to four years to complete a work because Jim splits his



time between his job as an Information Technology professional and his art work.

Fabrication of each part can add up to a considerable expense. Both bronze and glass casting are expensive processes in material and fabrication costs can easily



reach triple digits.

Jim has no pat answer for why he as labored over this series. Other than to say that it was something he felt he had to complete, to come to closure on. They are *Circular Obsessions* and now that they exists Jim is free to move on.

The sculpture pieces sometimes lay around for weeks or months and Jim will have no idea how they will fit together aesthetically, (and at times also structurally) to produce a final product. Then it comes out of the blue; the solutions come as a gift just as the design concept did before. There is no forcing it. You have to just wait and believe.



Bohr

“Everything we call real is made of things that cannot be regarded as real.”
Niels Bohr

Mix Media Sculpture

Size & Weight - 26 inch diameter by 22 length., 60 lbs.

Metal Marbles - Two spherical objects on either end are Metal Marbles. Metal Marbles are torch-worked glass with various inclusions such as copper, gold, and enamels. They are worked in the flame through repeated steps of oxidation and reduction as metals are added.

Inner Ring - The inner ring is cast bronze, and within the bronze ring is a 1 1/4 inch thick cast glass ring composed of hundreds of pieces of iridescent glass producing a milky inner glow.

Outer Ring - The outer most ring is a 1/2 inch piece of fused glass. This ring runs completely through the center of the sculpture.

End Cones - On either end are cones of solid surface material (Corian). These cones have been copper plated and patinae applied. Corian was chosen for its ability to maintain fine detail.

Center Body - Under each end cone and running through the rings is lathe turned cherry wood.



This work was named after The Bohr Model formulated by Niels Bohr, a Danish physicist born in 1885. The Bohr Model depicts the atom as a small, positively charged nucleus surrounded by electrons that travel in circular orbits around the nucleus

The many concentric rings of this sculpture and the simmering yet clouded cast glass bring to mind spiraling energy captive by its own mass.

Jim works on a human scale. The works often appear to be miniature models of something much larger. In this case, Bohr resembles a model for a futurist space station. However, Jim's design process does not contain a representative component. The forms are simply what appears on paper when he idly sketches and listens to music.

A component of 'idleness' exists in many of the phases of the creation process. Jim especially

likes the droning hiss of the torch when working glass. Turning wood on the lathe also brings on a sense of inner hypnotic quiet when his focus is honed to a single purpose of releasing the form from the media.

It is odd that these inherently dangerous processes are experienced as relaxing and in some measure therapeutic as the normal worries of the day fade away in the focus of the moment.

“It’s mesmerizing and relaxing... the heat, the intense light, the colors in motion in the glowing honey-like glass, all in a very tightly controlled space of the torch’s flame.”





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Focus On ...

Woodturning & Mold Making

This Focus On section outlines the wood turning and portions of the mold making process employed for the Bohr sculpture..

A wood turning typically starts with a turning *blank*, composed of multiple pieces of wood precisely glued together forming a seamless whole. In figure 1 the blank is beginning the rough out process where it is formed to the approximate desired shape (figure 2). It is then removed from the lathe and disassembled into its component parts for texturing and finishing.

Next in the process is creating the center ring which starts as a wood turning and ends as a glass and bronze casting. Figure 3 shows the wood blank for the wood turning and figure 4 shows the inside of the finished form.

In figure 5 the center of the disk has been cut away, and the detailing has been added as cut away areas which will allow the cast glass to show through.

The wood form is now considered an original for the bronze casting process. For this sculpture a fine art fabricating bronze foundry was used to make a mother mold from the original and two castings were made from that mold.

In figure 6 a finished bronze (left) is next to the second bronze in process of being filled with sections of pliable ceramic fiber paper. This paper is then reinforced with Zicar Mold Mix 6. The finished mold (figure 7) is removed from the bronze and placed into a bed of sand

which acts as both support and an insulator for the casting process. This is an open face mold where the glass is placed into the mold and additional glass added during the firing until the mold is filled.

Both the finished bronze and cast glass must go through an extensive detailing and polishing process to prepare them for final assembly.

There are usually many set backs that occur during the process such as mold breakage, missteps on the lathe and fabrication problems at the foundry. They often require a complete reworking of a stage and sometimes lead to wholesale design changes.



figure 1



figure 5

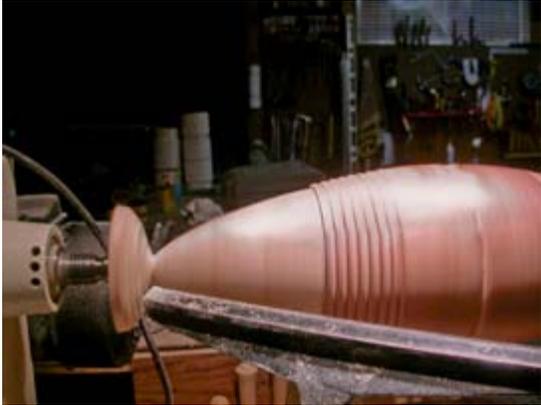


figure 2



figure 6



figure 3



figure 7



figure 4



figure 8

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