

# RhinoCAM Makes Bold Impressions

## at Louisiana Tech School of Design

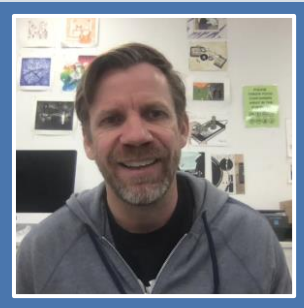
[Joey Slaughter](#) is Associate Professor of Art at [Louisiana Tech University School of Design](#) in Ruston, LA. Joey has successfully integrated [Rhinoceros CAD](#) and [RhinoCAM](#) into his Advanced Sculpture curriculum. Students learn how to use various Computerized Numerical Control technology tools in a way that combines both hand work and technology into a new medium for the design and fabrication of Impressionist Art and Sculptures. The [RhinoCAM](#) toolpaths, stock materials and cutting tools are now merging with the more traditional tools of the artist such as clay, paint and brushes.

*Vertigo* - Show here on the right is a work by student Ben Wreyford. Ben used Rhino to design simple rectangles and Rhino cam profile toolpaths to cut those shapes in metal. The shapes were then bent on rollers and by hand. The assembled pieces are welded together. This piece is an example of the power of the simple line to convey a thought. *Vertigo* uses an assemblage of heavy 3D lines to suggest a swirling motion in an apparent burst of energy.



## The RhinoCAM Difference

Since 2015 Joey's students have been learning how to draft 2D drawings in Rhino and how to generate toolpaths in [RhinoCAM](#) to drive their [MultiCAM CNC Plasma as well as thor CNC router and laser](#). ***"The RhinoCAM interface and workflow allow students to learn very quickly,"*** says Joey. Students start out by learning how to draw basic shapes and then how to generate the toolpaths required to cut those shapes on the CNC router. The materials being cut include wood, cardboard, vinyl and light metals.



*What was your RhinoCAM learning experience like?*

*"There was a short learning curve to understand and learn how to apply the right toolpath for a given task. Overall however I found RhinoCAM to be quite easy to learn. Understanding materials and thicknesses was very easy to convey to my students."*

*Joey Slaughter, Associate Professor  
Louisiana Tech University School of Design, Ruston, LA*

## Student Project: Callie Robbins

In this assignment, students were to reimagine what a shelf can be. The final shelf had to be made from metal. In the first step students learn to use curves in rhino and then how to make a scale mock-up of their designs from laser cut cardboard.

With the cardboard test students had to think about how they would form the CNC cut metal components with a brake to bend the metal or rollers to make curves. The students were asked to incorporate something on or with the shelf for example, found objects, collections, or to look to nature for examples.

In this example named **“Stalks”**, artist **Callie Robbins** envisions a shelf reminiscent of the shapes and textures of wild mushrooms. The shelf appears to actually “grow” out of its aluminum metal base whose layout was cut on the CNC router and then folded and rolled to its completed shape. Here is a description of the work in Callie’s own words.



*“For this project it was important to have varying diameters of the dowel rods, as well as a variation of lengths and textures. Each rod was either hand-carved or sanded to best render its individual texture. I also found it necessary to experiment with other tools. For instance, I used a drill to create openings in some of the rods. In keeping with the mushroom theme, I decided desaturated pastels would best suit the shapes I had created. Lastly, I chose to paint the tops of each stalk a cadmium red to reflect the “opening” of each one for the viewer.” - Callie Robbins*

**- Hat’s off to Callie Robbins for this Inspiring Work of Art! -**



## Student Project: Megan Maynard

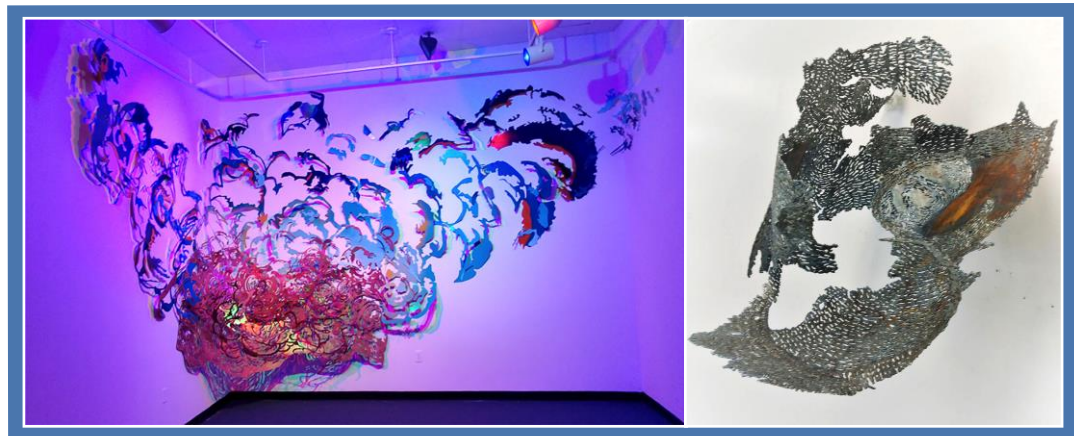


Megan Maynard, a former graduate student from [Louisiana Tech School of Design](#) used Rhino to design the internal and external shapes. In RhinoCam Megan used inside and outside 2 Axis Profiling toolpaths that were then cut out on the school's [Multicam CNC Plasma](#). Megan then bent the metal by hand to give the appearance that the forms are taking over!

*"Fungi is where I pull inspiration from for the shapes and patterns that are present in these works. Mushrooms, a form of fungi, can be pulled from the ground and turned upside down to show the life history of the fungi and how it grew, unlike people. We like to hide our past if it does not fit into the spectrum of the culture we live in or the groups we equate ourselves with." - Megan Maynard*

***Both very cool and  
awe inspiring!***

***It looks like Megan has  
secured a future in cinematic  
special effects!***



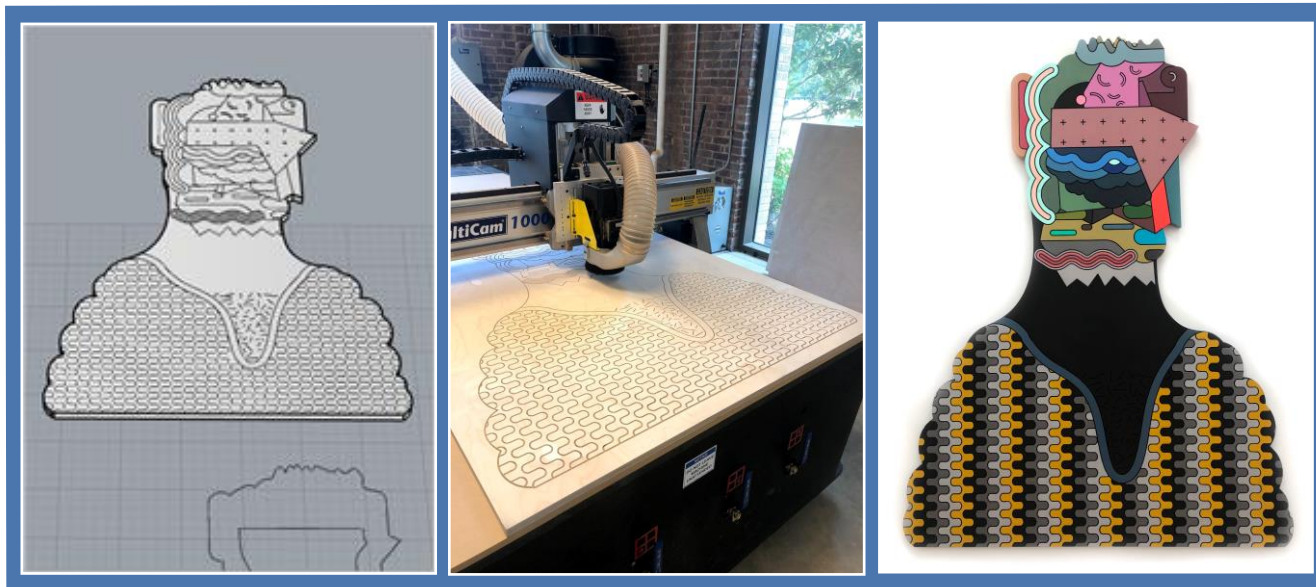
## More Student Projects

Here are more very cool student projects that are excellent examples of how CNC technology has merged with the artist's more traditional mediums of wood, metal, clay, and paint. We want to thank all of the [Louisiana Tech School of Design](#) students who contributed their works to this case study!



## Instructor Project

The project below was created by Joey Slaughter, Associate Professor of Art at [Louisiana Tech University](http://Louisiana Tech University) in Ruston, LA. Joey used Rhino and RhinoCAM to create the panel from  $\frac{3}{4}$ " MDF flat stock. The interior borders were cut using the 2 Axis Engraving operation with a 45 degree Vee mill cutter. The perimeter was cut using the 2 Axis Profiling operation and a  $\frac{1}{2}$ " flat end mill. In the left image we see the Rhino part file with 2D curves representing the borders. In the middle image, the canvas is engraved on the school's [Techno CNC Router](http://Techno CNC Router). On the right we see the completed work. In this example, each bordered region is painted. In many cases they are separately machined inlays.



*From the Artist - My work is purposefully busy in reference to the busy-ness in our lives and our thoughts. I've long been interested in what a thought process looks like in the brain, imagining firings of color and structure. I see my works as explosions of thoughts, snippets of conversations, weavings of words and lyrics - a visualization of communication.*

**Very cool projects Joey!  
Thank you for allowing us to showcase your work!**



## The Impressive Career of Joey Slaughter!



[Joey Slaughter](#) earned his BFA from [Memphis College of Art](#) and his MFA from [Cranbrook Academy of Art](#). Upon graduating from Cranbrook, Slaughter was awarded the [Joan Mitchell Foundation MFA Grant](#). He has also received the [Louisiana Division of the Arts Career Enhancement Grant](#) in 2012. Slaughter has exhibited widely throughout the US in both solo and group exhibitions. His work has been published in [Fresh Paint](#) and in [New American Paintings magazine](#) four times. In 2017, Slaughter was awarded the [Louisiana Prize from South Arts](#) and received the [Sam and Adele Golden Foundation residency](#). Joey currently lives in Ruston, LA, and is Associate Professor of Art at [Louisiana Tech University](#).

### Follow Joey Slaughter Online:

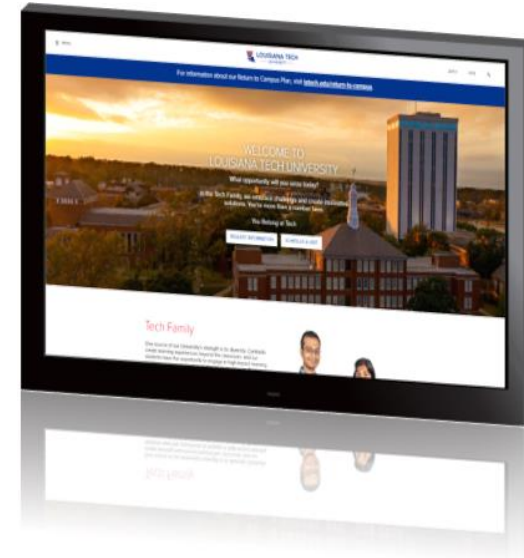




## More About Louisiana Tech School of Design

[Louisiana Tech University](#) was founded in 1894 and is located in Ruston, Louisiana with a population of 12,000 students. The school is a four-year selective admissions research university awarding bachelor's, master's, and doctoral degrees. It's mission as a selective-admissions comprehensive public university, Louisiana Tech is committed to quality in teaching, research, creative activity, public service, and workforce/economic development. Louisiana Tech maintains as its highest priority the education and development of its students in a challenging, yet safe and supportive, diverse community of learners.

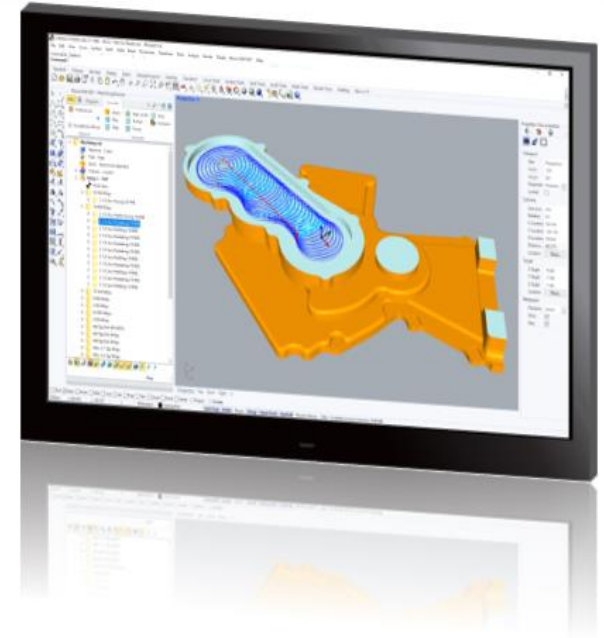
Follow [Louisiana Tech University](#) Online:



## More about RhinoCAM

**RhinoCAM - MILL** is available in five different configurations (Express, Standard, Expert, Professional and Premium). The parts shown here were programmed using the Standard configuration. Here are some additional details about each of the available configurations. For the complete features list, visit the [RhinoCAM Product Page](#).

- **RhinoCAM MILL Express:** This is a general-purpose program tailored for hobbyists, makers and students. Ideal for getting started with CAM programming. Includes 2 & 3 axis machining methods. Includes ART & NEST modules as well!
- **RhinoCAM MILL Standard:** This configuration includes everything that is in the Express configuration and additional 2-1/2 Axis, 3 Axis & Drilling machining methods. Also now includes 2½ Axis Turning!
- **RhinoCAM MILL Expert:** Suitable for 4 Axis rotary machining. Includes the Standard configuration, plus 4 Axis machining strategies, advanced cut material simulation and tool holder collision detection.



- **RhinoCAM MILL Professional:** Ideal for complex 3D machining. Includes the Standard and Expert configuration, plus advanced 3 Axis machining strategies, 5 Axis indexed machining, machine tool simulation, graphical toolpath editing and a host of other features.
- **RhinoCAM MILL Premium:** Tailored for complex 3D machining with both 3 Axis and full 5 Axis methods. Includes the Standard, Expert and Professional configurations, plus 5 Axis simultaneous machining strategies.

For the complete features list, we invite you to visit the  
[RhinoCAM Product Page: mecsoft.com/rhinocam](http://mecsoft.com/rhinocam)

# Try RhinoCAM Today!

**Powerful production CAM for Rhino users!**

Follow MecSoft Corporation Online at:



34145 Pacific Coast Highway, #616 | Dana Point, CA – 92629 | [www.mecsoft.com](http://www.mecsoft.com) | 949-654-8163

Want to see how RhinoCAM can help you? [Click Here](#) to download a demo!