

Spheres of Influence

INSIDE AN ENDURING COLLABORATION

Zina Burloiu and Terry Martin



Spheres of Influence, 2016, Walnut, 5½" × 5½" (14cm × 14cm), lidded sphere is 2⅛" (5cm) diameter

Zina Burloiu and Terry Martin first worked together nineteen years ago at one of Michael Hosaluk's Emma Lake camps in Canada. Here, in their own words, they describe their continuing adventure and how their latest piece in the 2017 AAW exhibition, *The Sphere – Second Round*, represents their deep collaboration. Zina works in Brasov, Romania, and Terry works in Brisbane, Australia—9,319 miles apart. They hope their story inspires others to reach out to distant friends.

Where it all started

Zina: When I first arrived at Emma Lake in 1998, I was rather shy, but people kept giving me partly finished

pieces and saying, "Can you do something on this?" I was happy to do it, but I found it hard to keep up. Terry was different because he said, "What would you like to do? Would you like to talk about it?" We sat on an old log and it was as if we had always known each other. He listened to my thoughts and said, "Let's find a way for you to break up some of those patterns you carve." It was exactly what I wanted. Terry turned a solid conical form and I carved a scattering of tiny chips that flew centrifugally around the piece.

Terry: I was so amazed by Zina's skill, but I was more impressed with how her mind works. She is so quick and determined to explore new ideas.

Zina: I'm sorry we didn't keep that piece because it was the start of a wonderful creative relationship. You can see in our faces how much we enjoyed it (*Photo 1*). The camp was called *Breaking Barriers*, so that is what we called our piece.

Terry: Since then we've learned that we think in very similar ways, but there are also big differences. Zina is a qualified and experienced engineer, so she does meticulous drawings and calculates everything in advance. She also has a degree in sculpture from art college, so I feel completely outclassed! I work by instinct with just a mental map of where I want to go. Both ways have their strengths and when you combine them it can produce unexpected things. Zina is one of a kind and the fact that she chooses to work with me makes me very proud.

Zina: Terry always says that my work on our pieces is much more important than his, but I disagree. He creates forms that inspire me and ▶

“ We hold up our work to the camera and it’s really as if we’re in the same room.

in five minutes Terry can make more suggestions than most people can make in a year. We plant seeds of new ideas in each other and we nurture them together.

Terry: It helps that we are both very interested in each other’s techniques. Zina is a great turner and that means I have to try harder. She is teaching me her way of carving now, so in the workshop I look at pieces of wood differently. I think of how the wood cuts, whether the grain will interfere with her work, what part of a piece Zina will carve on. It has made me better because when Zina is going to carve on something, only the best I can do is good enough.

Across the miles

Zina: How we communicate is important. When we met, even email was new, but now the Internet and digital photography have made it so easy. One of us will think of a trigger for a new design—a word, a memory, an image, a concept—and we have so many ways to send it. We use email to send scans of designs and photos taken with our phones, or we just call for free on Skype and talk.

Terry: Yes, and then we make new sketches and hold them up to our webcams. It goes to-and-fro and we laugh a lot. We always end with “You do this” and “I’ll do that,” and then we can’t wait to get to the workshop to start.

Zina: Even from our workshops we send photos in real time. There’s an eight-hour time difference between our homes, and one of us is always

ready to report when the other one wakes up, so the project rolls on around the clock. When the pieces get closer to being finished, we take better photos with our high-res cameras.

Terry: Back online we hold up our work to the camera and it’s really as if we’re in the same room. I’ll say, “What about this here?” and Zina will say, “Yes, but I think you could move it a little closer to the rim.” Then I say, “Oh, you are right! What if...?” Sometimes when I’m working, my phone will “ding” with a new image. I switch off the dust extractor and compressor and we talk, or even exchange videos. Working with noisy machinery and ear protection can be isolating, so this creates a new kind of energy.

A special project

Zina: Our way of working is so good that when we were both invited by Tib Shaw into the 2017 POP exhibition, *The Sphere – Second Round*, we thought it was a good chance to show what we can produce together. Both of us have had pieces on the cover of her catalogs before, so she was happy to agree.



Zina and Terry in 1998 with their first collaborative work, *Breaking Barriers*.

Terry: Once we had the all-clear, we had to start quickly because working so far apart takes time, especially when we photograph every step.

Zina: The ideas flowed so fast that now it is hard to remember who said what. Among other things, we talked about two interlocking hemispheres to represent the opposite sides of our world, as well as our lives. But we felt a simple round piece wouldn’t show all that we wanted, and I liked the idea of a flat area surrounding the sphere. It was something we had worked on before and it would give me a broad surface to carve on.

Terry: I was talking about this project to my inspirational friend John Morris, and he said in a throw-away manner, “How about *Spheres of Influence*”? It really worked for me and I rushed home to talk to Zina.

Zina: I loved the name because the influence we have on each other is at the heart of this piece. We still needed a design and we were playing with so many ideas—the planet, seeds in each other’s heads, time, distance—so much to try to put into one piece. Finally, we agreed on a shape that included an off-center lidded box.

The turning

Terry: Time was short and I had to start. First I mounted a square of walnut on a screw chuck to turn the underside and a spigot for remounting. To start, I did a series of cuts by raising the handle and rocking the tool into the wood with the edge at an efficient shearing angle (*Photo 2*). Once the depth was established, I re-sharpened and took a fine smoothing cut toward the center. By looking along the wood toward the center, I ensured the bevel was “floating” flat against the wood, which produced a clean cut (*Photo 3*). I turned the bottom by hand, but when

Turning the underside



2 Turning the underside of the piece by rolling the tool into the wood.



3 Final cuts toward the center with the bevel lightly in contact with the wood.

Cross-slide vise



4 Using the cross-slide vise to make a perfectly flat cut.

Hollowing the sphere



5 Turning out the center of the sphere was straightforward, like hollowing a bowl.

I turned the piece over, I used an easier method for the top—a technique that works particularly well for thin pieces that flex at the edges.

Zina: Terry always talks about my skills as an engineer, but without any training he seems able to come up with technical solutions to many problems.

Terry: I learn by watching and in a metalworking shop, you can see turners doing this kind of thing on metal lathes, so they're our cousins. I use a cross-slide vise that sits in my banjo and mount a blank of high-speed steel ground to an efficient cutting edge for this kind of work.

It's easy to align the vise at exactly ninety degrees to the bed by holding a ruler in the chuck jaws and making sure the tip of the tool precisely touches the ruler along its whole length. I can then take the finest cuts possible with tiny turns of the handle, so I can go very thin, in this case to 5mm (about $\frac{3}{16}$ "). It is important to finish the intermittent cutting first, leaving the inner portion thick to prevent flexing (*Photo 4*). By re-sharpening the tool for a final micro-fine cut, the piece can be finished so well that you almost don't need to sand.

Zina: We had agreed on this thickness that suited the depth I would

need to carve, but when it arrived I was impressed that it was precisely 5mm.

Terry: Turning out the center was straightforward bowl turning (*Photo 5*). I used a cardboard template to be sure it was hemispherical. The tricky part was remounting the wood once more to turn the underside of the sphere. I don't have a vacuum chuck, so I turned a flat piece of wood with a raised center that fit tightly inside the piece (*Photo 6*). Taped at the edges with duct tape, it was stable (*Photo 7*), so with small rounding cuts I finished the bottom of the sphere, using a slightly larger diameter template to set the wall thickness (*Photo 8*).

Once the turning was finished, on the bandsaw I cut back two sides to complete the offset design we had agreed on. Turning the "lid" for the sphere was easy. I used the same cardboard templates; the only difference was that it had a small inner lip to fit inside the base.

Zina: When Terry showed me the finished piece, I loved it, but I also thought there was something missing. It needed something in the center to create a focus.

Terry: We talked online and Zina suddenly said, "Let's put a *sphere* in the middle!" It was perfect, so I went straight to the workshop and turned a tiny ball in Chilean myrtle.

The carving

Zina: I was so excited while I waited for the piece to arrive from Australia. Every day I checked its transit online and when it finally arrived, I didn't want to put it down. This always happens when I get Terry's pieces and I have learned to leave them where I can see them for a few days and let my thoughts simmer. ▶

Terry: Soon I started to get new designs every time I opened my email. Zina wanted to show how our lives and ideas intersect, and how we influence each other from far away. She drew so many things—rays of the sun, gravity ripples, swirling lines—but then she came up with a design that felt just right to us both.

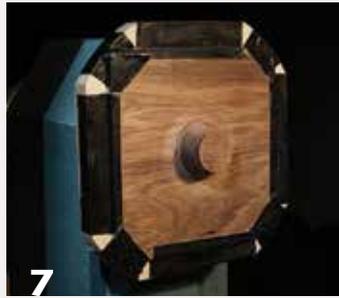
Zina: The single star represents Terry in Australia. His ideas cross the world to me and multiply into new ideas. It truly represents our “spheres of influence” (Figure 1). To transfer the design to the wood, I turned a plug to fit in the center and used a compass to draw the arcs. Then I drew the radiating lines from the center to

complete the frames for the chips I would carve.

Terry: It was an echo of our first piece, *Breaking Barriers*, but much more challenging to carve.

Zina: I transferred the design to the wood and then relied on basic

Finish-turning the sphere



The jig for mounting the piece to finish-turn the bottom of the sphere. A jam fit and duct tape hold the piece firmly in place.

From pencil to knife

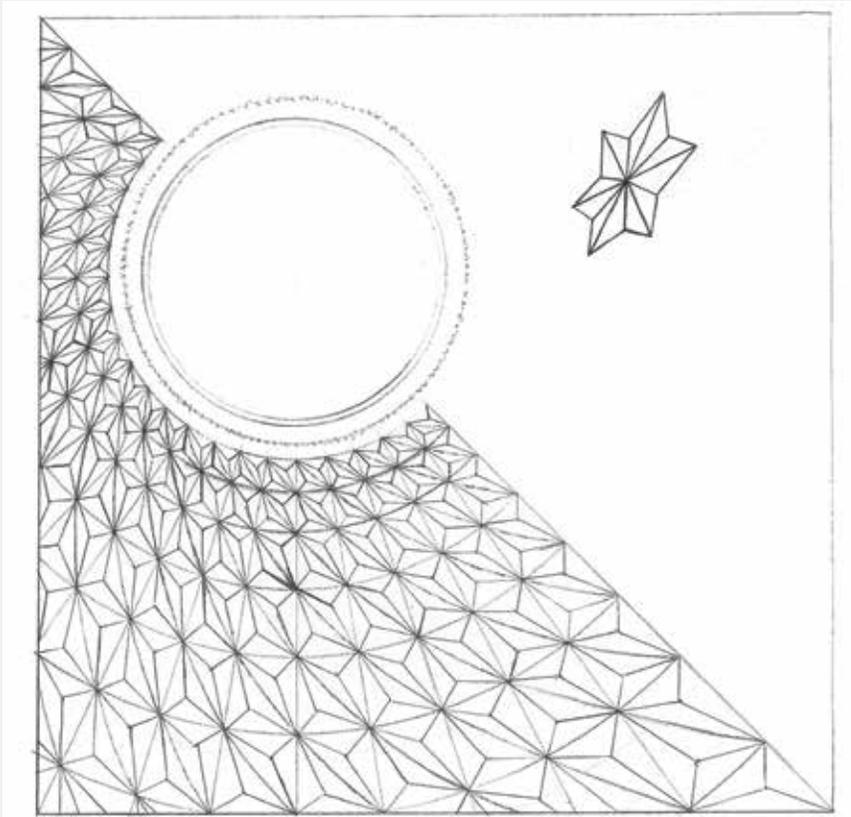


Figure 1



Zina's drawn design becomes tangible in wood. Her first two cuts, rolling the tool tip forward into the wood, produce a chip that is released with a third cut.

technique. I have been cutting chips for so long that muscle memory takes over and I can concentrate on creating the cleanest cuts possible. Each chip is a tiny three-sided pyramid removed with three cuts. The first two cuts are made by rolling the tip of the knife into the wood and continuing the cut towards me till it meets the intersection of the pencil lines (*Photo 9*). The third cut is a sliding undercut that frees the chip from the wood (*Photo 10*). The tricky part is that one side of each chip is curved, which is one reason my knife blade is so thin. I have to bend the blade to follow the line.

Terry: To do my work on the piece, I needed so much equipment and took so many different steps, but with a few simple cuts made with one knife, Zina created an exquisite piece that has never been done before.

Zina: Terry and I laughed one day when I told him the temperature was -1°F in Brasov and he said it was 98°F in Brisbane. Nothing shows

how far away we are more than that, so we decided I would carve the tiny sphere with longitude and latitude lines to show that this collaboration is across land, sea, and seasons.

Terry: I was curious to see how Zina would draw these lines on such a tiny ball, but her solution was very simple. She mounted it between two hollow cones on her lathe and rotated it to scribe each line.

Zina: As usual for my lines of tiny chips, I cut a continuous wedge of wood along each line with one cut from each side (*Photo 11*). Next I took a series of single-angled cuts into each line, then went back and joined each of them with an angled cut from the other direction. Just like the bigger chips, they fall out when the final cut is complete (*Photo 12*).

Terry: These chips were only 1mm (about $\frac{3}{64}$ ") on each side, so sometimes Zina can't see what she is cutting, even with magnifiers on her glasses. She does it simply by knowing what the

knife needs to do and letting muscle memory do the rest (*Photo 13*).

Zina: I am so proud of this piece because it is all about our own way of working.

Terry: Zina and I are already making pieces for future exhibitions and we have enough ideas to keep us busy for years. In one way, this piece is our coming-out statement. We are a team and nothing could make me prouder—of Zina, of myself, and of what we have achieved together. ■

Zina Burloiu and Terry Martin have been working together for twenty years. Zina is a highly respected wood artist working in Brasov, Romania, and Terry is a woodturner and writer, working in Brisbane, Australia. They have embarked on a series of collaborative ventures around the world. Zina and Terry can be reached by email at zinaburloiu@hotmail.com and eltel@optusnet.com.au, respectively.

A sphere within a sphere



11



12



13

A tiny continuous sliver of wood is produced as Zina cuts around the circumference of the small sphere. Two angled cuts then release each minuscule chip, only 1mm wide. To help visualize the tiny carving, Zina relies on magnifiers, muscle memory, and intuition.