

ONYE NDIKA – BEADWEAVING

WHAT'S ONYE DOING? - A Synopsis of my Geometric Bead Design Process

I am a “geometric bead artist” that creates different types of geometric shapes by weaving (usually glass) beads with 6-lb (0.18mm thick) monofilament. Yes, that fishing line that one would buy at the sporting goods store is exactly what I use to construct my art. The wearable versions of my art are comprised largely of beaded beads, beaded ropes, or unique beaded shape elements (discs, squares, ovals, tori, pentagons, etc). The sculptures are usually very large beaded beads whose stringing holes eventually end up being obscured by a great deal of layering and embellishment. Several of these pieces are on display today.

I normally start by unraveling one wingspan of line, cutting it with sharp scissors or wire cutters, then picking up the first 3 beads using one tip of the line (also I'm right-handed). I form a triangle by passing the other tip of the line through the back end of the 1st strung bead. Holding both tips of the line in one hand, I cinch and center the beads (creating even lengths of line on each side of the beadwork) by gently pulling the beads away from the line tips. Now I can proceed to build my structure.

Side note: Traditionally, beadweavers use beading

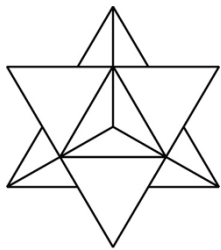
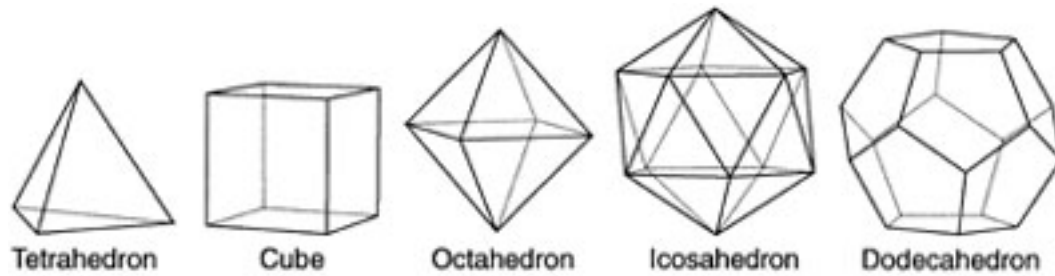
needles and beading thread (such as Fireline, Nymo, silamide, One-G, or Sono), treated with thread conditioner or beeswax to prevent breakage or fraying.

It gives flat beadwork structures a fabric-like draped feel. Because the majority of my work is three-dimensional and I want them to be very sturdy for many years, I prefer to use monofilament and I don't use needles. I will often use a stick pin to dig out the tip of the line if I accidentally weave into the wrong bead. Another reason I use monofilament (without needles) is that I am weaving multiple-layered structures, and often the outer layer is embellished with micro-beads. Micros are tiny and these smaller seed-bead sizes (such as 18/0, 20/0, 22/0 and 24/0) cannot tolerate a needle pass without breaking.

Once that first triangle is formed: this is the beginning of creating almost anything I desire. Some would say "round and round," which applies when I am building icosahedrons (or icosahedra). I could say "tri and tri, tri and tri, I will succeed at last!" Because what I am almost always doing is building a solid structure made up of hundreds (if not thousands) of tiny triangles.

Below are diagrams of the basic platonic solids that I am usually creating when I begin creating small (or large) beaded-beads. Think of each edge represented by a bead (usually round, cylinder, or

bicone) in a woven bead structure. If you play D&D, then you recognize some of your favorite dice shapes also!



If you wonder how I form cubes with triangles, I actually construct merkabas (above, right diagram) by weaving a tetrahedron on the face (single triangle) of an octahedron. This process is described as stellation, in geometry. So, the cube and octahedron are duals of each other; likewise the icosahedron and the dodecahedron are duals of each other. The merkaba is also formed if 2 open-structured tetrahedra ‘pierce’ each other.

I hope I didn’t bore you with the math; I’m just passionate about geometry! I hope you enjoy my art.

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