

THE FROG PRINCE

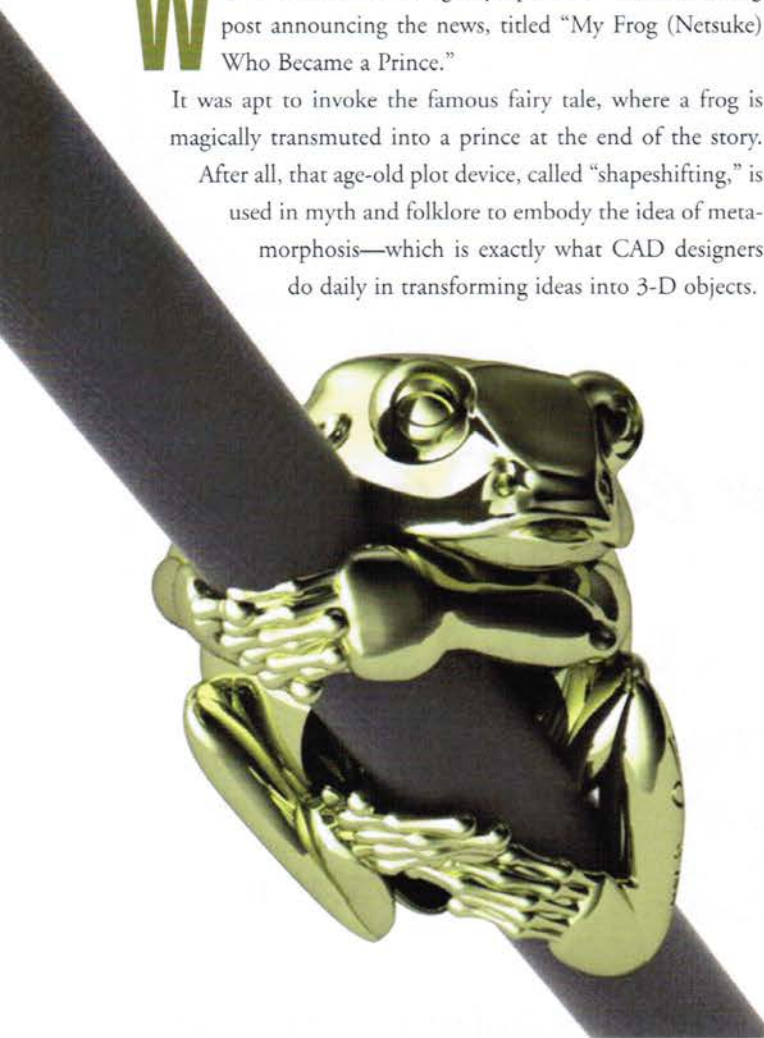
Kitty Hundley wins second place for Technical Merit in the Matrix Design Contest

BY PEGGY JO DONAHUE

When Kitty Hundley's amazing amphibian was honored at the Gemvision Design Symposium, she wrote a blog post announcing the news, titled "My Frog (Netsuke) Who Became a Prince."

It was apt to invoke the famous fairy tale, where a frog is magically transmuted into a prince at the end of the story.

After all, that age-old plot device, called "shapeshifting," is used in myth and folklore to embody the idea of metamorphosis—which is exactly what CAD designers do daily in transforming ideas into 3-D objects.



This was Hundley's first time making an animal using CAD. "It was a labor of love and a study of control point manipulation," says Hundley. "To create the frog, I worked with basic shapes (primarily spheres) and manipulated those shapes through their control points. Pushing and pulling, scaling and rotating, trimming, blending, a sweep here, a join there, and, suddenly,

there was this frog staring at me."

Hundley had to design carefully because she planned to cast the frog in gold. "With a frog, you have a chunky body, skinny arms and legs, and other inconsistencies in shape that present challenges to a caster," she explains. "Generally, jewelers are working with known shapes, such as rings, pendants, or earrings, and they know what parameters to use. But I had to be very careful with thicknesses, tolerances, and other factors in order to make my sculptural work."

The designer, who is also a trained sculptor, says she had long wanted to explore the more sculptural possibilities that CAD software offers. "Pair my yearning to sculpt in CAD with my partner Gabe [Sider]'s desire to create a unique line of jewelry/objet d'art that was heavily inspired by Japanese 'netsuke,' and you have a match made in heaven," she says. Hundley and Sider operate Sierra Design Studios, a CAD/CAM service bureau based in Philadelphia and San Francisco.

Netsuke are miniature sculptures that were popular in 17th and 18th century Japan. They were used as highly artistic fasteners to attach corded containers to the sashes of men's kimonos. Since kimonos had no pockets, men used the containers to carry their belongings. The most common netsuke are three-dimensional figures carved in a roundish shape and measuring one to three inches high. The carvings often depict animals of relevance to Japanese folklore. Hundley and Sider are now developing a production line of different netsuke that can be hung from a silk cord as a unique form of wearable art, or simply displayed and admired as miniature sculptures.

"The knowledge I gained in creating this little creature has supported me in every design following it," says Hundley. "It has allowed me to approach sculptural objects with a completely new understanding of my software and its vast capabilities. And being recognized among my peers for the hours of hard work, technical skill, and endless left clicking that went into this design gave me a thrill of delight and a feeling of pride for which I am truly grateful." ♦