

# Truer Than Truth

Trompe l'oeil illusions challenge your perception

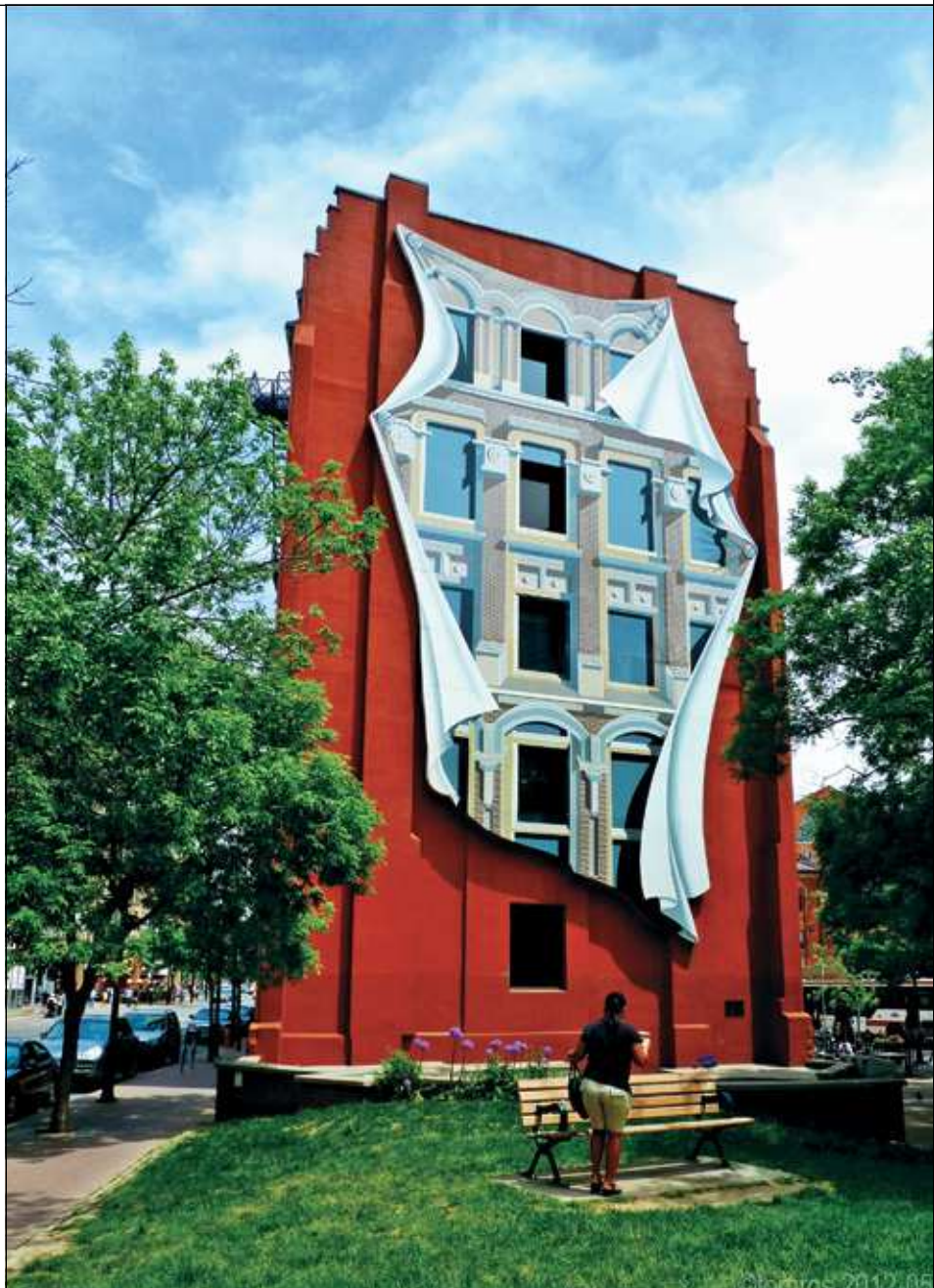
BY SUSANA MARTINEZ-CONDE AND STEPHEN L. MACKNIK

“I always tell the truth.  
Even when I lie.”

—*Al Pacino in  
Scarface, 1983*

IN THE STUDIO of sculptor Tom Eckert, life appears to imitate art. A new snow shovel—Eckert cannot get much use of it in Tempe, Ariz.—hangs on the back wall, covered by a sheer piece of fabric. We had seen photographs of Eckert’s art before our visit, so we suspect that the translucent curtain is carved out of wood. But the trick is on us. Eckert reveals that the shovel is wood as well, as is the “plastic” hook holding it and the two not really galvanized metal nails securing the curtain to the wall. Instead a metal fastener hidden in the back supports the entire piece, and the shovel’s filmy silhouette is spray-painted onto the solid wood block that is the faux silk curtain. Elsewhere in the studio, we mistake wood sculptures for balled-up used work rags, and vice versa. Is the rag abandoned on the workbench a model for a sculpture, or are we looking at the carving instead? Only after touching it can we decide. **M**

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## BEHIND THE CURTAIN

The Flatiron Mural is artist Derek Besant’s milestone outdoor public trompe l’oeil mural for the city of Toronto in Canada. The back end of the Gooderham Flatiron Building, a magnificent 1893 Victorian triangular structure with turrets and coned rooflines at the heart of Toronto’s Theatre District and St. Lawrence Market, was knocked down to create a park, and five windows were punched into the firewall facade, creating an aesthetic problem. “My solution was to apply aspects of the surrounding five blocks of architecture into a sculptural facade that appears to be a giant curtain,” Besant says.

# (illusions)



## TRUE LIES

According to legend, trompe l'oeil ("to trick the eye," in French) originated in a competition between artists Zeuxis and Parrhasius in ancient Greece. Zeuxis painted such lavishly appetizing grapes that birds tried to eat them. Sure of his victory, he attempted to unveil Parrhasius' painting but was crushed to realize that the curtain he tried to pull aside was the art itself. Such illusions work because your visual system uses position, shading and even the interplay of light on an object's surface to build a mental representation of the world around you. Tom Eckert, a modern-day Parrhasius, does not consider himself a trompe l'oeil artist. "Trompe l'oeil implies mimicry," Eckert says. "I create illusions." Indeed, pieces such as *The Raising of the Sphere* appear to defy the laws of nature rather than emulate them. The "silk" cloth raising the ivory ball is not fabric but wood. The thinness, detail and luster of the carving deceive our visual neurons, and we conclude that the material must lack the structural integrity to support a large, heavy object, despite what we see. The end result is not the perception of a masterful wood carving but of magic and the impossible.

## ATTACK OF THE GIANT ARACHNIDS

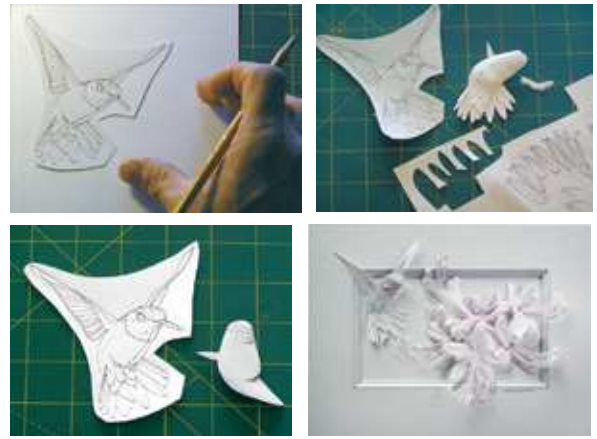
One way to achieve spectacular trompe l'oeil illusions is through the use of anamorphic perspective. Artist Marlin Peterson painted harvestmen (which, although they are arachnids, are not actual spiders) on a Seattle rooftop. The images are stretched so as to optimize 3-D perception for viewers at the observation level of the Space Needle; other vantage points diminish the illusion. As in many trompe l'oeil illusions accomplished by painting, the expert use of shadows is critical. Peterson needed six gallons of house paint and a full-body harness to create this artwork. You can see the major steps of the process in a short video at <http://marlinpeterson.com/2-minute-video-of-the-whole-mural>



## CLONES AND MIRAGES

As a young child in the backseat of the family car on a long hot Arizona highway, Eckert was struck by the persistent sight of water on the road. His parents told him it was a mirage, an illusion. He was stunned. The epiphany marked the beginning of a lifelong fascination with the boundaries of reality and our perception of it. Today Eckert is a producer of mirages. The shovel propped up against the wall is the real-world prototype of a hanging carved wood sculpture. Road mirages work because blue photons from the sky refract from the surface between cool and hot air just above the asphalt. Similarly, Eckert uses paint and carving techniques in such a way that light helps to evoke materials other than wood. Your brain sees luster and interprets it as the sheen of metal, for instance. Eckert's shovel also exemplifies the perceptual principle known as amodal completion, by which we infer a whole object even if some of its parts are occluded. Eckert did not need to carve a shovel handle, or even a full blade, to create the illusion of the complete tool. Just a touch of spray paint over the fabric "veiling" the implement, and our amodal completion mechanisms take care of the rest.

COURTESY OF TOM ECKERT (top and bottom);  
MARLIN PETERSON (middle)



**OUTSIDE THE BOX**

Consummate trompe l'oeil artists make their creations jump out of the frame, sometimes literally, as in Spanish Catalan painter Pere Borrell del Caso's *Escaping Criticism*. Paper sculptor Calvin Nicholls pulls off the illusion by creating actual 3-D objects from small pieces

of paper. He starts with a 2-D detail drawing, which becomes a pattern for all the paper pieces he will cut. Then he traces individual pieces from the drawing and transfers them to the actual paper used in the sculpture, attaching them with minute amounts of glue.



**HANDCRAFT**

Painter Annie Ralli and photographer Ray Massey give new meaning to the term of handcraft. If you have not seen the illusion yet, look again: *There. Is. No. Pen.* The illusion is part of a series for Ecclesiastical Insurance, a company using the byline "You're in good hands." Notice how cleverly the pen's "metal" clip disguises the index finger's first knuckle. The perceptual principle known as good continuation (our perception that the paint lines defining the pen make up a single uninterrupted object) plays a big role in the deception.



**PENCIL ME IN**

Portuguese lawyer and self-described art hobbyist Samuel Silva creates astonishing photorealistic drawings with regular ballpoint pens. *Redhead Girl*, based on a photograph by Russian photographer Kritina Taraina, took approximately 30 hours and seven ballpoint pen colors to complete. "It takes me forever to do my works," Silva writes on his Deviant-art page. He crosshatches in layers to create blending and the illusion of colors that he does not actually use and cleans his pen every minute or two to prevent ink blobs.

**(Further Reading)**

- ◆ **Momento Mori: Contemporary Still Life** by Tom Eckert, Robert Peterson and John Rise. Grady Harp. Lizardi/Harp Gallery, 2000.
- ◆ **Sleights of Mind: What the Neuroscience of Magic Reveals about Our Everyday Deceptions.** Stephen L. Macknik and Susana Martinez-Conde, with Sandra Blakeslee. Holt, 2010.
- ◆ **Illusions of Reality: Naturalist Painting, Photography, Theatre and Cinema, 1875–1918.** Gabriel P. Weisberg; contributions by Edwin Becker, Maartje de Haan, David Jackson and Willa Z. Silverman, with collaboration of Jean-François Rauzier. Mercatorfonds/Van Gogh Museum, Amsterdam/Ateneum Art Museum, Helsinki, 2011.

COURTESY OF PERE BORRELL DEL CASO (top, far left); COURTESY OF CALVIN NICHOLLS/CALVINNICHOLLS.COM (top, center and right); RAY MASSEY (bottom left); COURTESY OF SAMUEL SILVA (bottom right)