

## STEELY RESOLVE

## Sculptors Working in Steel

by Wolfgang Mabry

ecause stainless steel did not come into being until the early twentieth century, its use in sculpture has only been feasible for a relatively short period in history. Early uses in architecture include the stainless steel cladding of the top 288.7 feet of New York City's briefly tallest skyscraper, the art deco Chrysler Building in 1929, and in sculpture, the monumental Gateway Arch in St. Louis, Missouri 1965. American abstract expressionist

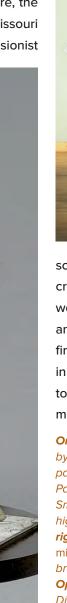


sculptor David Smith (1906-1965) created Helmholzian Landscape in welded steel, painted blue, red, yellow, and green, in 1946. Cubi XIX was his first stainless steel sculpture, created in 1964. What motivates a sculptor to elect steel rather than bronze as a medium of choice?

On this page, left: Woman in the Garden by Pablo Picasso (1929), welded iron, paint, 8-1/2 feet high, Musee Picasso, Paris, France; middle: Cubi XIX by David Smith (1964), stainless steel, 9-1/3 feet high, Tate Gallery/London/Great Britain; right: Woman with a Mirror (Femme au miroir) by Julio González (ca. 1936-37), bronze, 9 inches high.

Opposite page: Ildefons Cerdà by Jordi Díez Fernández (2010), stainless steel, 15 feet high, including high spiral pedestal, located in Centelles, Spain.







Julio González (1876-1942) was considered by David Smith to be "the father of all iron sculpture of the 20th century," according to the introduction by Margit Rowell in Gonzàlez: Catalogue Raisonné Sculpture. In 1920, he resumed a friend-

ship with Picasso and later taught him techniques of oxy-fuel welding and cutting. González collaborated with Picasso on Woman in the Garden (1929) and was the only artist with whom Picasso shared his personal art notebook. Picasso's cubist influence inspired González to exchange bronze for iron and volumes for lines. González also forged the armatures for Constantin Brâncusi's plasters.

One of Pablo Picasso's best-known sculptures is an untitled monument commissioned in 1963 by the Skidmore Owings & Merrill architects of the Richard J. Daley Center in Chicago, for the plaza on the East side of the building, where it has become a much appreciated landmark. Many of Picasso's sketches and the 42inch tall maquette for the sculpture can be seen at the Chicago Institute of Art. Fabricated at the United States Steel Corporation in Gary, Indiana, using Cor-Ten—a weathering steel developed by U.S. Steel in the 1930s—the 50-foot tall, 160-ton sculpture was dedicated in 1967 amid local controversy, being Chicago's first major public sculpture that did not represent a historical figure.

Among important living sculptors working extensively in stainless steel, Barcelona sculptor Jordi Díez Fernández (b. 1966) has a global reach with his figurative sculptures. The material performance attributes of stainless steel—elasticity. ductility, weldability, and resistance-attract Díez to the me-

dium. Its attribute of immateriality and the absence of inherent color causing it to relate to its surroundings by reflecting them are paramount. His human figures in stainless steel appear at times to be made of light. The cold

nature of steel acquires a special power in Díez Fernández's sculptural representations of life, in which steel evokes more of its internal fire than its external appearance.

In his monumental Ildefons Cerdà, a tribute to the civil engineer and urban planner (nearly 10-feet tall on an almost 5-foot high spiral pedestal composed of steel bars, rods, and ovoid

> plates), Díez took advantage of the strength of steel, which allows it to remain stable in very thin sections and permitted the sculptor to open up the work and impart transparency to the negative spaces. Steel's ability to accept and hold to a mirror finish adds reflections of what is in front of the sculpture to what can be seen beyond it.

> Jason Seley (1919-1983) had worked for many years in clay, terracotta, and plaster for figurative sculptures. In the early 1950s he began to use found objects in constructing armatures for lessfigurative plaster sculptures. In 1956, his wife, Clara, purchased the rear bumper of a 1949 Buick for one dollar. Two years later, Jason used it as an armature form for Random Walk, and

then sought out bumpers for more armatures until he realized that his plaster sculptures were obscuring the qualities of the bumper forms that attracted him in the first place. By the end of the decade he had learned welding and thereafter allowed the material he was using to reveal its identity. The memorial



## Untitled by Jason Seley (1966), welded bumper, 22 inches high; middle: Untitled XXXI by Richard Stankiewicz (1960). welded metal, 37 inches high; bottom: Yeddish

On this page, top:

by Simon Kogan (2012), made out of solid Cor-Ten steel plate, 4 feet high.



statement published by the Office of the Dean of the University Faculty of Cornell University cites Seley's intention in using steel scrap for a new sculptural purpose. "The bumpers I use are chromium-plated steel of high quality. My conscious effort is to transform the material but to have that transformation take place without obliterating the identity of the material."<sup>2</sup>

**Richard Stankiewicz** (1922–1983) was a pioneer in "junk art" and assemblage. He took pipes, nuts, bolts, clockworks, and other scrap from junkyards and welded them into sculptural compositions

that respected and transformed the fragmented and arbitrary character of the materials. "I take material that is already degenerating, flaking and rusting, and then try to make something beautiful of it," Stankiewicz said in 1958, according to The New York Times obituary published in 1983. Later in his career, he still used metal components, but not scraps. Humor and wit were still present in his work, if less conspicuously. The influence of David Smith can be seen in Stankiewicz's very strong attention to purely aesthetic considerations.

Cor-Ten steel and its variant alloys have been used by many sculptors since the mid-1960s for the unique properties the material offers, many of which are opposites of the properties of stainless steel. An alloy of iron with copper, chromium, nick-

el, silicon, and lesser amounts of carbon, phosphorus, sulfur, and manganese, Cor-Ten steel develops a rust-like coating that inhibits internal corrosion, making it ideally suitable for bridges, buildings, and sculpture in many environments, excluding sea-salt laden environments, subtropical climates with constant high humidity, and areas with extreme air pollution, where the



corrosion resistance of the hard, rust-colored skin is likely to fail.

American sculptor, **Simon Kogan**, (b.1959) immigrated to the United States in 1991, after thirteen years of classical training in Moscow, where he had earned a Master of Fine Arts degree and an apprenticeship under renowned sculptor Isaac Brodsky. Kogan has worked in bronze, stone, wood, stained glass, plaster, steel, concrete, painting, and printmaking. He elected to use Cor-Ten 1-inch plate steel for his monument, *Yiddish*. "I respect the entity, dignity, and presence of the unique quali-

ties each material brings to sculpture," said Kogan, in a telephone interview for this article.

His choice of Cor-Ten was based on attributes of the ore, the long history of steel, the weight and density of the material, the refinement process, the pressure under which plate steel is produced, and most importantly, the toughness and gradually changing appearance of the skin Cor-Ten develops in response to the threats of damage from external phenomena, all of which relate to the title, subject, and meaning of his monument. *Yiddish* is a 4-foot tall, 11-foot long, 2-ton curve that spells the word "Yiddish" in Hebrew characters, and is etched with verses from a poem (titled and here transliterated: "Di blayene platn fun Roms drukeray—"The Lead Plates at



On this page, top: Tulipula by Babette Bloch (2003), 38 inches high, painted stainless steel with water based enamel sign paint; bottom: Magna Magnolias by Babette Bloch (2014), stainless steel, 9 feet high.

the Rom Press") by the Yiddish poet Avrom Sutzkever engraved on the surface.<sup>3</sup> Letters are symbolic; words are symbolic; the material is symbolic, and each element carries abstract power beyond the literal meaning. In another reference to the awesome power of letters and words, Kogan recalls a World War II period during which the lead Hebrew letters used in typesetting had to be melted down to make bullets. *Yiddish* was commissioned by and installed on a specially prepared base at the Yiddish Book Center in Amherst, Massachusetts, in 2012.<sup>4</sup>

After earning her degree at the University of California, Davis, studying with Robert Arneson, Deborah Butterfield, Manuel Neri, and Wayne Thiebaud, **Babette Bloch** (b. 1956) enjoyed the spontaneity of working in clay for bronze sculptures in the early 1990s, but not the loss of control when surrendering models to the multiple stages of

mold making and foundry work. In moving almost exclusively to stainless steel sheet metal, Bloch can plan and execute every phase from idea through drawings, paper models, creation of CAD programs, and collaboration with engineers and steel cutters on the way to obtaining precise laser and water jet cuts through thick plates of stainless steel to be welded into sculptures; for larger works and monuments like *Magna Steel Magnolia*, a 9-foot tall, 20-foot wide, 400-pound sculpture comprised of twelve sections installed at the Mattatuck Museum of Art in Waterbury, Connecticut.

Bloch consults structural engineers to ensure the long-term stability of her sculptures. Despite the density, hardness, and weight of stainless steel, Bloch's cutting, shaping, burnishing, and grinding of the components produce a visual impression of ethereal weightlessness. The reflective properties of stainless steel allow her sculptures to interact with the changing character of light in the seasons and the times of day and night. They reflect colors and topography of their environments while the negative spaces of her cutout silhouettes become portals to the landscapes and patterns visible through



the voids. In her Vases series, Bloch creates floral arrangements in a range of scales, using industrial shaping machinery to sculpt three-dimensional works from marinegrade corrosion-resistant SAE 316 stainless steel. She paints some of them in subjectspecific colors and designs others to relate arbitrarily with the colors of their environments. Other subject areas Bloch elaborates in stainless steel include liturgical and architectural themes, and representations of elements in sports and nature. Her 12inch Babette's Menorah Puzzle appeals to children and families with infinite arrangement possibilities and the congruent symbolism carried in the strength, durability, integrity, and beauty of stainless steel.

Charles Parks (1922–2012) created more than 290 sculptures in a variety of media over a long and successful career. Among his best-known works nationally and inter-

nationally are three stainless steel monuments to the Virgin Mary. In each of the three sculptures, Parks cast the head, neck, heart, and hands in stainless steel and fabricated the robes in strips of welded stainless steel. Information about why he chose stainless steel is not readily available, but it would be reasonable to suppose that he chose it for certain attributes associated with the Madonna: resistance to tarnish, the inherent radiance of stainless steel, and the ability of the colorless material to reflect the blue of the sky—a color associated with traditional depictions of her robes and symbolic of

her protection.

British sculptor Sir **Antony Gormley** (b. 1950) confesses to an obsession for exploring the body as a place rather than simply an object, and for reconciling the body's space with space at large. He has produced works in that theme in other metals and media, and in four different ferric alloys—CorTen steel, stainless steel, cast iron, and mild steel. In *Construct*, Gormley's fifth solo show at Sean Kelly Gallery in New York City, the artist introduced five new works that deconstruct and reassemble interior volumes of the human body.

Made in his London studio at 1.5

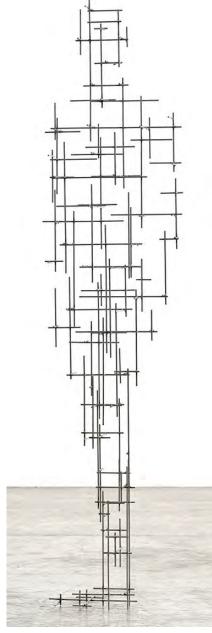


times life size, the new sculptures are constructed of mild steel bar, weighing in at 8 tons each. Gormley reconfigures the human body in architectural idiom, breaking anatomy down into a complex system of interlocking beams and investigating the relationship between man and the man-made environment. Gormley has posed the figures in unstable moments of repose. Big Yield is a standing figure, bent forward at the waist and elbows, with hands on head, looking ready to tip forward. Big Skew is a figure with head and back on the floor; hips, legs, and feet raised upward and a little forward in a modified headstand. Mild steel has a light-absorbing quality similar to Cor-Ten, giving the five sculptures a dark countenance despite the playfulness of their unstable poses. For Scaffold, Gormley chose 1/64th-inch squaresection stainless steel bar to construct a nearly transparent figure composed of thin, delicate-looking, but strong components, achieving a barely there apparition of a man standing in restful motionlessness.

Gormley used Cor-Ten steel for his 1998 monument, *Angel of the North*, a permanent installation near Gateshead, England. Standing 65-feet tall with a wingspan of 177 feet, the 200-ton ANGEL is mounted on 500 tons of concrete foundations in a mound made from destroyed remains of the Lower Tyne Col-

liery, the now-closed coal mine, which for three hundred years previously had supported the region.

Adi Yogi: The Abode of Yoga, a two-level, 30,000 square-foot, dome-shaped structure was built for meditation at the Isha Institute of Inner Sciences on the Cumberland Plateau near McMinnville, Tennessee. Consecrated by Sadhguru, a realized yogi, mystic, and founder of the Isha Foundation, it is a powerful energy source open to all who seek to elevate their consciousness and know yoga as an inner experience beyond knowledge, philosophy, or technique. The most prominent feature of the Abode is a 21-foot-tall steel sculp-





ture depicting the visage of Adi Yogi, the first yogi, who offered the science of yoga to the world more than 5,000 years ago. Conceptualized by Sadhguru, the statue was fabricated by a team of volunteer engineers and sculptors in India. The face and ears are sand-cast steel; all the other elements are fabricated from steel plate segments. Three-dimensional modeling software was used to create the overall form; the neck, shoulders, and chest were made by dividing the figure's outer profile into two-dimensional strips using a laser-cutting system. Cladding was accomplished by heating the plate to 1632 degrees F, positioning it on the two-dimensional grid, and hammering it into shape. The plates were welded from the inside and outside, then chased by grinding. A pattern for the face was made with a 4-axis milling machine. Twelve thousand pounds of molten steel were poured into the mold to achieve a 2-inch thickness. The mask and hair were fixed with bilateral welding and grinding. The earrings were cast in copper; the snake and crescent moon were die-cut and fabricated from 1/16th inch copper sheet. The same Indian team that was responsible for this 21-foot tall statue is currently creating the first of four 112-foot tall

portrait heads of Adi Yogi, which will be consecrated in February of 2017. Steel has been chosen over bronze as the primary medium for the monument for technical, financial, and aesthetic reasons.

Opposite page, top: Big Pluck 2 by Antony Gormley (2016) mild steel bar, 9-1/2 feet high; bottom: Big Skew by Antony Gormley (2015) mild steel bar, 85 inches high. On this page, top: Scaffold by Antony Gormley (2015), 5/32 inch square section stainless steel bar, 78 inches high; bottom: Big Yield by Antony Gormley (2015), mild steel bar, 86-1/4 inches high.





Richard Becker (b. 1958) grew up in Los Angeles, California, and despite an early gift for art, elected to study science at Stanford University, where he earned a Master of Science degree in 1988. On an engineering job assignment in Barcelona, Spain, in the mid-1990s, Becker was sufficiently inspired by European art and architecture to change careers, with studies at the Escola d'Art i Disseny de Sant Cugat in Barcelona and at the Martine Vaugel Studio in Venice Beach, California. He has worked extensively in bronze and in stainless steel. His Portrait of Dr. Peter C. Farrell is a life-size, high relief in stainless steel and azurite commissioned to honor the founder of ResMed Corporation at their training center headquarters in San Diego, California.

The seriousness in this and in many of Becker's other commissioned sculptures offers dramatic contrast to his bust of Matt Groening's *Homer Simpson* and to a new series of stainless steel sculptures of childhood innocence, joy, discovery, play, and dreaming. Becker's balloons and bubbles in stainless steel and automotive paint are minimalist springboards for the imagination. "Stainless steel brings a brightness, newness, and

tonal range beyond what I can achieve in bronze," observed Becker recently in his San Diego studio. "Its brightness and beauty add a contemporary vibe to even a classically sculpted piece. I create a tonal range that reminds me of silver gelatin photos by selectively grit blasting, glass beading, sanding, and polishing. Coloring with transparent coatings, à la Koon's works and my *Tot I*, [sic] adds yet another dimension. Even though stainless is much more finicky, and harder/hotter to cast than bronze (nearly 1000 degrees F hotter than bronze) more expensive, harder on tools, et cetera, I love it!"

**Shi Jinsong** (b. 1969) is one of the leading young sculptors of China. Inspired by three powerful stimuli—the rapid socio-cultural change in China, his reading of Michel Foucault's *Madness and Civilization: A History of Insanity in the Age of Reason*, and the birth of his first daughter—he began investigating ideas of transformation and control. His stainless steel sculptures look at early childhood from a unique and completely different perspective, and include a baby stroller weaponized with machine guns, an armored and similarly weaponized baby cradle, and a rocking horse made from razor-edged steel



shapes inspired by martial arts-based blades, swords, claws, and projectiles. For each year since the birth of his son, Shi has made a suit of armor for the boy, always of polished stainless steel, and always themed according to the Chinese calendar. Mickey Mouse with Armor was made when his son was four, during the year of the rat. Whether protective or lethal, Shi's luxurious baby gear comments on materialism, globalism, nationalism, militarism, and other forces that dominate modern life in increasingly frightening ways. Shi's sculpture initiates a dialog between the hope and promise of new life and the realities of today's world.

These and other sculptors turn to steel in all its forms for the unique properties each form offers. Their sculptures make original, powerful, and highly diverse statements that provoke thought and reflection, even as their materials of choice add their own voices to the conversation.





Wolfgang Mabry writes about art, artists, and the business of art. He has directed galleries in Carmel and Laguna Beach, California, and in Santa Fe, New Mexico, where he now sells fine art at a gallery on Canyon Road.

## NOTES

- 1. Margit Rowell, introduction to *Gonzàlez: Catalogue Raisonné Sculpture* (French Edition), (Milan: Electa, 1987).
- 2. Memorial Statements of the Cornell University Faculty 1980-1989 Volume 6. See https://ecommons.cornell.edu/bitstream/handle/1813/19320/v6\_1980s\_Memorials.pdf?sequence=1
- 3. The Rogovy Report by Seth Rogovy, "New Commission by Sculptor Simon Kogan Installed at Yiddish Book Center", May 12, 2012. See http://rogovoyreport.com/2012/05/12/yiddish-book-center-simon-kogan-sculpture/
- 4. Ibid.

Opposite page, left: Baby Stroller, Sickle Edition, by Shi Jinsong (2007), steel, 116 inches high; right: Our Lady Queen of Peace by Charles Parks (1982), the head, neck, heart, and hands are cast stainless steel and the robe is welded strips of stainless steel, 33 feet high; located on the grounds of Holy Spirit Catholic Church in New Castle, DE. On this page, top left: Full Armor - Mouse by Shi Jinsong (2008), stainless steel, 32-1/4 inches high; top right: The Tot by Richard Becker (2015), stainless steel, 32 inches high; bottom: Visage of Adi Yogi (2014), steel, 21 feet high.