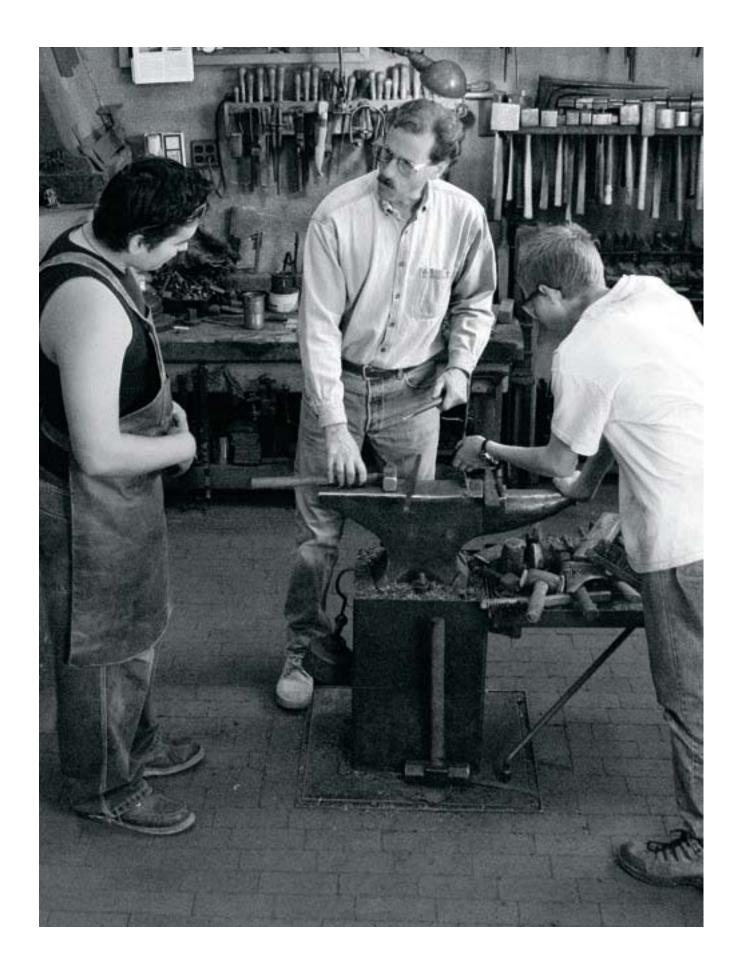
Tom Joyce: Broadband Virtuoso This conceptual blacksmith shapes incandescent metal within the contours of his thought

BY MALIN WILSON-POWELL

"THE DIRT ON my hands feels good," says Tom Joyce, as he smiles at the grime embedded in the whorls of his fingertips.¹ Looking at the ingrained soot of smithing, this articulate, soft-spoken, athletic man notes that it takes at least a month of forge work before he can *not* wash the residue away. Since being awarded a five-year MacArthur Fellowship in 2003, Joyce has come to cherish blacksmithing time in his Santa Fe studio: the roar of flames, the hammer blows on glowing metal, the volcano of steam as the white-hot steel slices into water. Even as hands-on workshop sessions become more infrequent, the exacting labor of creating pieces from incandescent metal in this place remains at the core of an expanding spiral of Joyce's endeavors. As this article is written, the artist is juggling multitudes of projects. For Joyce, none of these activities are separate or prioritized. His lifelong practice has been to engage every task at hand with full and open attention. "Each [activity] fuels and feeds a reciprocal investigation in [my] life." says Joyce. "Without one of the parts, the others would be less... communication between these sometimes disparate parts is critical."² Joyce is wholly present whether handling hot metal, baking bread, or teaching a child. His current commitments include the installation of permanent outdoor sculptural seating at the new Museum of Art and Design on Columbus Circle in New York City; a suite of lithographs for Landfall Press; co-curating a major traveling museum exhibition of African forged iron and copper alloy



objects; completing the spring session of an ongoing free blacksmithing program for young people in his studio; following up on his March visit to Ghana and Togo, where he met Ewe, Ga, Ashanti, and Fon blacksmiths; working with an archaeologist on evidence of iron bloom that pushes back the dates of Togo's oldest smelting site; hosting studio visits for groups that range from Art Institute of Chicago to students from the Institute of American Indian Arts in Santa Fe; communicating with sponsors for fall teaching residencies in Belgium and Estonia; editing the 125-page rough draft of a Smithsonian Archives of American Art interview; serving as a weekend guide for New Mexico paleontologist Larry Rinehart to view a rare fossilized Ectoganus jawbone he discovered while camping along an escarpment; and replanting the family garden-yet a third time-after a thorough plundering of seeds, seedlings, and worms by the curved bill thrasher, an invasive species new to the high desert of northern New Mexico. In addition to this very full life, since April Joyce has been driving the 120-mile roundtrip from Santa Fe to Albuquerque at least twice a week to work with his four new founding partners in Noribachi, a startup company dedicated to solar power innovations. Joining the Noribachi team as lead designer, Joyce has since been appointed CEO (or Chief Experience Officer).

Joyce is by habit an early riser, and for years has cultivated a contemplative quietude in the still hours when potent darkness drains away to light. An autodidact, Joyce's predawn book list over the years reflects a broad, inquiring, and supple mind. "At present, I'm fully immersed in books



Memorial Sculpture, 2002 cast iron, ash (World Trade Center site), soil (Santuario de Chimayo), sand (Tibetan Buddhist mandala) left 6 x 6 x 6" right 8 x 8 x 8" PHOTO: JOHN MICHAEL KOHLER ART/INDUSTRY RESIDENCY PROGRAM COLLECTION OF NATIONAL ORNAMENTAL METAL MUSEUM

It would have been impossible to foresee a path from the tiny dirt-floor El Rito forge to a life lived so widely across the globe and occupied with so many contemporary concerns.

on sustainability issues, business ethics, and the latest in solar technology— Bill McDonough's *Cradle* to *Cradle*, Paul Hawken's *Natural Capitalism*, and *Harvard's Business Review on Green Business Strategies*, to name but a few. I'm happy to supply additional titles, if you'd like, but I haven't

read a book purely for pleasure since *Dirt, The Ecstatic Skin of the Earth*, by William Bryant Logan in 2007."³ Even during the 1990s, when Joyce's workshop, equipped with four coal and one gas forge, was fully staffed with assistants producing architectural ironwork, and when the environment was bellowing with fire and filled with the rhythm of hammers and the staccato of air hammer strikes, it was a four-day-a-week operation, for everyone. The forges were cold on Fridays, the day Joyce then set aside for experimentation and reading, both for himself and the benefit of his assistants. Since beginning to blacksmith, he has shaped metal within the contours of his ideas: "I've always been interested in a conceptual approach to design."⁴

As the MacArthur Foundation fellowship comes to an end this year, their no-strings-attached funding has increased Joyce's appetite for inquiry, innovation, and action. Although he never did manage the five-month sojourn to Africa he originally planned, during his spring 2008 visit to that continent, he cultivated new connections and renewed longstanding ones. Most significantly, in his work with metal, the MacArthur support meant Joyce successfully explored a dramatic scaling up of his sculpture and challenged himself to find ways of using his expertise within the environment of a large industrial forge.

At 51 years of age, Tom Joyce has been practicing the craft of blacksmithing for 37. In the early 1970s, no responsible American middle-class adult would have advised a 4.0 student to leave high school at 16 years old—as Joyce did—to become a blacksmith, fixing and forging farmer's tools in a remote northern New Mexico village. His great aunt Mary, with whom he lived during the school year in Oklahoma, cried. Forward-looking people then were absolutely convinced all trends in culture and technology were moving inexorably toward dematerialization, digitization, and miniaturization. It would have been impossible to foresee a path from the tiny dirt-floor El Rito forge to a life lived so widely across the globe and occupied with so many contemporary concerns. Joyce's life seamlessly incorporates sensuous monumental steel sculpture, in-depth scholarship on African metalworking, and the exciting prospect of setting up an inventors' workshop for Noribachi.

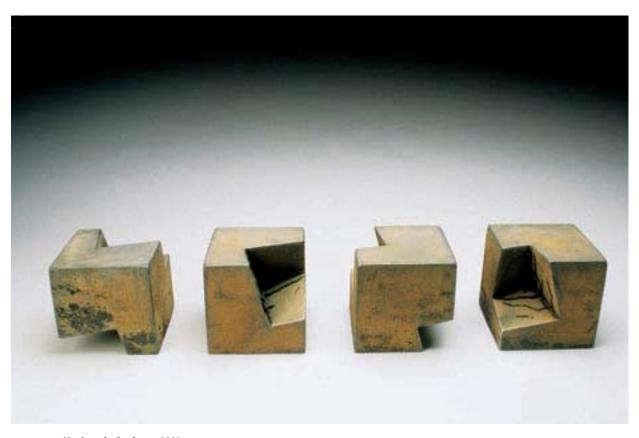
It is a lovely paradox that Joyce's mastery of blacksmithing in the 1970s—at a time when the craft was disregarded as irrelevant—should now reveal itself a treasure chest of useful skills. When he became fascinated with



Fibonacci Bowl, 1989/2007 forged iron 4 x 15 x 15" COLLECTION OF ARKANSAS ART CENTER

blacksmithing, there was not one apprenticeship program available in the U.S. like the eight-year programs offered in Europe. This need for Joyce to find his own way was fortuitous, considering how firmly the European tradition of blacksmithing is circumscribed within the parameters of the building trades. For Joyce, to learn the craft and develop it into an art meant a good deal of self-reliance, bravura, and plenty of trial and error. Situated out of the mainstream, in the third poorest state in the union, Joyce was free to develop his own ideas and means. He began by examining in detail Spanish Colonial hardware in New Mexico museums and private collections, and eventually by becoming a knowledgeable collector of African iron implements and currency. To date, he has assembled collections of African metalwork for four museums.⁵ In addition to his initial in-depth studies and replication of historic pieces, Joyce avidly sought out those few passionate master blacksmiths who had literally kept the flame alive. The subsequent burgeoning of blacksmithing and metalworking is a well-known story to the readers of *Metalsmith*, itself an outgrowth of the revival and extraordinary creativity in the field.

In 1993, when Joyce was 36, Francis Whittaker (1906– 99) then America's eminence grise of artists-blacksmiths, acknowledged Joyce as simply the best blacksmith in America: "I'm jealous; he's so young and yet so very good."⁶ Grateful and humbled by such kudos, the carpe diem nature of Joyce's homage to his elders and traditional smiths has always been to move forward, to take up formerly unavailable technologies, and to fully interrogate



Northeast by Southwest, 2003 cast iron 6 x 33 x 6" photo: John Michael Kohler Art/ industry residency program collection of NAN AND DAVID RAY

accepted doctrines. With Joyce's capable hands and open mind (he's procured donated nuclear warhead cones from the U.S. Department of Energy, and Russian bomb parts from Arzimas 16, the former USSR Cold War secret city, for a projected peace lectern), he welcomed the opportunity in 2001 to investigate cast metal while in a residency at the Kohler Art/Industry Program, even though molds are considered a sacrilege to traditional blacksmiths. The result was an edition of memorial sculptures poured on the first anniversary of the September 11 disasters, in 2002. Mixed into the metal is ash from the World Trade Center, dirt from Santuario de Chimayo (a sacred healing site in New Mexico), and sand from a mandala made by Tibetan Buddhist monks. Some of his other collaborations include working with composer-acoustic ecologist Steve Feld, who uses field recordings to document African gong makermusicians; creating billows of rolling smoke for video artist Steina Vasulka; and his unbilled production of scores of sinuous iron sunflower leaves for a Kiki Smith installation.

Many of the qualities necessary for Joyce's current endeavors are hidden in plain sight in his personal history. The artist, his family, and friends built his commodious 2,200-square-foot adobe studio in 1987, before they built their home. It was literally built out of their own backyard. Beautifully nestled into a soft rise of land, among the most salient and subtle qualities of these mud-brick buildings is their skin; they are plastered with the same dirt as is underfoot. Almost no adobes are plastered with mud anymore, unless they are the buildings of the poor; mud plaster is considered too high-maintenance in the first world, but it is the only way that such buildings can breathe. It's a lifelong commitment. The buildings expand and contract with the passage of day and night, the changes of weather, the seasons, and the level of activity within.

Underlying all of Joyce's activities is a commitment to such baseline vitality, whether it is in a building, a bowl, a pot of soup, or a sentence. Whatever he makes feels inexplicably, miraculously alive. His works of iron and steel seem to breathe. While most ironwork is dense, hard, immovable, linear, and often with sharp edges, even Joyce's earliest hinges, handles, and railings pulse with a robust fluidity. They embody the ease and inevitability of inhalations and exhalations. Formally, Joyce often realizes this palpable liquid resonance by using designs of spiraling movement and by subtle beveling and delicate surface modulations that temper the light. His justifiably celebrated Art Deco–inspired entrance gates for the Sol y Sombra estate in Santa Fe suggest rain softly falling. In the high desert of New Mexico there is no blessing like rain.

In the early 1990s, Joyce accepted ambitious commissions, including the magnificent Santa Maria De La Paz baptismal font in Santa Fe, and the ebullient blossom of a mica chandelier for the Phoenix Museum of History.



Quoin, 1994 wood, books, forged iron 48 x 48 x 41" PHOTO: NICK MERRICK COLLECTION OF SARA AND DAVID LIEBERMAN

Wedge, 1994 books, forged iron 34 x 8 ¹/₂ x 4 ¹/₂" PHOTO: NICK MERRICK COLLECTION OF BARRY LOPEZ

Alongside these big projects, he used similar vocabularies for tabletop-scale pieces. His mother was an accomplished quilter, and the baptismal font, using ferrous mementoes contributed by parishioners, is an elegant legacy of putting together fragments to create a whole that is more than the sum of its parts. The constructions of Joyce's metal sculpture honor not only the polyphonic chorus of individual voices, but also the layered histories of the material itself. "There is no 'virgin' iron left in the world; it has all seen another life," he says.⁷ With his artful recycling of the chains, keys, locks, hinges, license plates, and other rusty sundries contributed by members of the church's congregation, Joyce's patchwork piecing not only preserves differences of color, tone, weight, and density, but the unique self-selected assembly of this specific community of worshippers.

In all of his work, Joyce creates a very wide aperture of inspirations and interpretations. Describing one of his early inlaid bowls, he "conceived it as a result of seeing aerial views of patterned farmland being encroached by urban sprawl.... The center is made from iron I found as teenager."⁸ No matter how complicated or technically difficult Joyce's work may be in execution, the finished pieces are always forthright, displaying an overriding simplicity, a notable restraint, and a relevant rightness in their composition. Like the man, the work speaks with layers of heartfelt meaning, but without fuss.

In 2008 Joyce was commissioned to forge a folded bowl for the MacArthur Award for International Justice, which was presented to former secretary-general of the United Nations Kofi Annan. This special bowl, folded seven times from a length of hot iron based on average human height worldwide, harkens back to the artist's 1993 folded series of bowls inspired by Fibonacci mathematical sequences. The folded and inlaid bowls of 1993 are series that attracted the attention of the art world, in Joyce's first solo show at Barbara Okun's art gallery in Santa Fe.

In 1995, also for the Okun Gallery, Joyce exhibited another new body of conceptually based art for which he coined the term "Pyrophyte," a series using huge timbers,

No matter how complicated or technically difficult Joyce's work may be in execution, the finished pieces are always forthright, displaying an overriding simplicity, a notable restraint, and a relevant rightness in their composition. singed books, and scorched balls of newspapers. Adjacent to his first forge in El Rito "was a letterpress printing shop specializing in handset type and design," recalls Joyce. "I helped out in summers in both places and found in each activity powerful sources of instruction.... The study of fire and the history of iron and the influence of the printed word.... These forces and



technologies exert a decisive effect on cultures worldwide, and in a multitude of ways provide me with inexhaustible avenues of thought."⁹ Today, pieces from all these series casually adorn his studio.

In 2005 Joyce's studio sprouted a new wing: an outdoor covered area for finishing the large-scale sculpture forged during two exploratory sessions at an industrial facility. During two-and-a-half months in the spring of that year, fortified by MacArthur support, Joyce developed a working relationship with a team of highly trained industrial blacksmiths at the Scot Forge near Chicago. The leftovers at Scot Forge are massive and measured in tons; each month this single industrial manufacturer forges approximately 250 million pounds of iron, copper, and aluminum alloy. The first body of sculptures and drawings crafted on this immense machinery and titled "Sotto Voce" was exhibited in August 2005. While the sculptures are obviously heavy metal, many of them confound with their buoyancy and animation. How is it that they seem to billow, even fluff out like a birds' down?

The pieces called "Bloom" actually look as if they are growing. Metalsmiths know that in smelting terminology, a bloom is the raw sponge-like mass of ferrous metal before it is shaped into bars or plates. Joyce explains that his largescale "Bloom" sculptures are made from massive ingots that "were turned inside out by forging and folding, so that their original skin is now hidden inside its folds and fresh material is kneaded toward the outside."¹⁰

For their opening in fall 2008, the new Museum of Arts and Design in New York City commissioned seven "Two to One" benches, a variation on the first "Sotto Voce" sculptures for seating. These pieces were created from cubes of stainless steel during a spring 2008 session at Scot Forge. Heated to 2,400 degrees, the cubes are blind-riveted just off center from one another before they are squeezed beneath a huge 3,000-ton hydraulic press. The askew placement allows a sliding action that creates dynamic, seemingly soft pairs of cubes. Joyce finishes them in his Arroyo Hondo open-air studio with a charcoal-gray, iron oxide patina. The seven sculptural seats range from 15 to 33 inches in height, weighing from 577 to 9,984 pounds, and they will be installed beneath the trees on the north side of the museum entrance. They create a perfect place for all the cosmopolitan joys of resting in a setting as public and active as Columbus Circle. These understated pieces reverberate with many meanings in their own doubling of cubes and the multiplier of seven, suggesting myriad human interactions of waiting, meeting, conversing, watching, sitting together and apart.

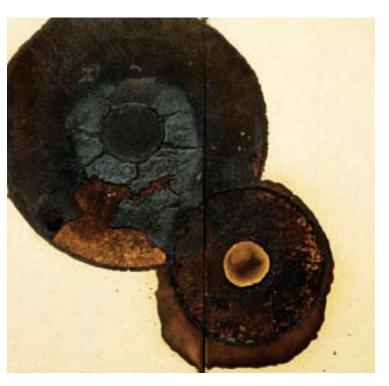
While working with the red-hot stainless steel cubes to fabricate the "Two to One" benches, Joyce found the slightest scratch would fray them like splintered wood. He is thrilled by the discovery and looking forward to exploring this tendency on his next visit to Scot Forge.

Cairn is an ongoing piece, begun during Joyce's first session at Scot Forge, which speaks directly to the



Two to One, I and IV (benches), 2005 forged iron left 15 $\frac{1}{2} \times 20^{\frac{1}{2}} \times 19^{\frac{1}{2}"}$ right 19 $\frac{1}{2} \times 24^{\frac{1}{2}} \times 23^{\frac{1}{2}"}$ PHOTO: ROBERT RECK COLLECTION OF ALICIA AND BILL MILLER





Penumbra I, 2005 charred impression on wood 48 x 48 x 3" collection of dottle and dick barrett

heartache many skilled blacksmiths have felt when they were required to turn plowshares into swords. *Cairn* is a movable pile of "boulders" made from salvaged industrial scrap, and each faceted lump will eventually contain soil from battlefields around the world with a small plaque to identify the particulars of the battle. *Cairn* is Joyce's symbol for conflict resolution, an ever-changing response to the lethal qualities of metal forged for stabbing, piercing, bashing, and smashing.

Joyce also began working more seriously with twodimensional images in the manufacturing atmosphere of the forge. At first, he simply wanted to record the immense scale of pieces made by the company and took the opportunity to press freshly forged, still red-hot industrial machine parts onto recycled wood-fiber panels. Intrigued by the final objects, he continues to pursue the burnt drawings. He finds them mysterious and isn't quite sure where they will lead. Joyce is currently working weekly at the venerable Landfall Press (which relocated to Santa Fe in 2004) toward a suite of ten lithographs that uses the fire-branding technique initiated at Scot, along with forge soot collected from his own workshop, and rust gathered from fort cannonballs at Cape Coast Castle in Ghana.

Joyce's studio is a place that feels charged; the hair rises on the back of the neck. Eyes must adjust to a low light level, the better to see nuances in the colors of hot ferrous metal. A thousand hand tools line the walls, with approximately half forged by Joyce and his assistants; almost each project completed here necessitates custom tongs, fullers, punches, swages, chisels, flatters and set tools. Tool making is where Joyce starts with the apprentices in his free blacksmith program: they make the tools they need. How many of us can make the tools we need? What does that sense of competence and confidence feel like in a world where screen time mesmerizes most of us, especially our children, each day? Joyce's students learn to synchronize their breathing to make their first hammer; they must assist each other by striking while the hot iron is held securely. They feel the heat and know there are real consequences and dangers. A hot metal shard can maim or severely injure.

Tom Joyce is the still point, the center of gravity in an increasing swirl of activities. The obdurate tetany of cooled metal is a characterization employed and exploited since working metal began, while Joyce's uses of metal as a fluid circulatory system in both material and cultural terms shifts our understanding and adds much to the field of metalsmithing. His approach eliminates historical limitations and simply makes an end run around many traditional constraints.

The great acting teacher Stella Adler used to speculate with her students that humans become actors because they do not get to use enough of themselves in daily life. In the theater of our times, Tom Joyce uses himself more fully than most of us. He acts from largesse rather than tribalism, diminishing the importance of such inherited hierarchies between crafts versus art and hands-on makers versus intellectuals. His balancing act and trajectory percolate with curiosity, patience, and bubbles of inspiration. His orientation to living life spread widely across a broadband of interests engages those of us fascinated by human innovation and the results of beckoning new possibilities.

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- 1 Conversation with author, May 30, 2008.
- 2 Smithsonian Archives of American Art, interview with Tom Joyce conducted by Jan Yager, November 18–19, 2004.
- 3 Conversation with author, May 30, 2008.
- 3 Tom Joyce email to author, June 16, 2008.
- 4 Craft in America: Episode I, "Memory," PBS documentary, 2007.
- 5 National Museum of African Art, Smithsonian, 41 object types; Museum of International Folk Art, Santa Fe, 66 object types; Indiana University Art Museum, Bloomington, 119 object types; and, Seattle Art Museum, 138 object types.
- 6 Alexander, Tom, "The anvil chorus is ringing loud and clear," *Smithsonian*, 24:2 (May 1993): page 54.
- 7 Artist's notes from press release for "Sotto Voce: Tom Joyce," Evo Gallery exhibition, August 10–September 13, 2005.
- 8 Artist's quotes from press release Tom Joyce: New Iron Vessels, Okun Gallery exhibition, July 16–August 11, 1993.
- 9 Artist's quotes from press release "Pyrophyte, New Sculpture, Tom Joyce," Okun Gallery exhibition, July 14–August 7, 1995.
- 10 Artist's quotes from press release "Sotto Voce: Tom Joyce," Evo Gallery exhibition, August 10–September 13, 2005.

Tom Joyce heating Berg V with acetylene torch while twisting, 2006 PHOTO: NIGEL NOBLE

Berg XV, 2006/2008 forged iron 35 x 51 x 35 ¹/₂" (6683 lbs) collection of Joann and Steve Ruppert



