Arthur Carter: Sculpture, Drawings, Paintings

By Charles A. Riley

The air is full of infinite lines, straight and radiating, intercrossing and interweaving without ever coinciding one with another; and they represent for every object the true form of their reason (or their explanation).[1]

—Leonardo da Vinci, *The Notebooks*, Manuscript A, Folio 2

Entering the mind of an artist is a delightful and daunting challenge. It took the estimable Paul Valéry two essays to scale the intellect of Leonardo and his double capacity to do art and science simultaneously. "He has the charm of always seeming to think of something else," Valéry observed. Invoking mathematical induction, the poet and critic celebrated a faculty "that leads the mind to foresee itself and to picture as a whole whatever was going to be pictured in detail, together with the effect of the sequence." Thirty-six years later, Valéry added a marginal note to the re-publication of "Introduction to the Method of Leonardo" in which he anxiously wondered, "Is it possible to make anything except under the illusion that one is making something else?"[2]

Arthur Carter is one of those intriguing artistic double agents—simultaneously operating on multiple aesthetic and intellectual planes—whose work absorbs and rewards close study. Much of his sculpture is based on inverted or mirror structures, like two-part inventions at the keyboard. His chosen medium, welded steel, leads to a "sculpture of

ascent" (in the words of Julio Gonzalez, who, with Pablo Picasso, created the first welded sculptures) and a sculpture of assent, thanks to his affirmative response to Constructivism. Where many artists work in a deductive way—an epithet applied by the art historian Michael Fried to Frank Stella's black paintings—Carter is inductive, even inferential in his serial progress from one piece to the next. An improvisational exercise in Method acting classes has participants starting their responses with the phrase "yes, and …" rather than the contradictory "yes, but." The conjunction "and" carries weight. Carter is exuberantly an artist of "yes, and."

Not all artists are thinkers. Some are extravagantly free of this burden, relying on feeling or action. Pollock was no thinker, no matter how eloquently Clement Greenberg rhapsodized to the contrary. The tiny library in the nineteenth-century farmhouse Pollock shared with Lee Krasner in Springs, Long Island, includes books by James Joyce, André Malraux, Simone Weill, and others, brought out from the city by intellectual visitors and resting unread (their paperback spines intact) on the white wood shelves over the door to the tiny living room. By contrast, Robert Motherwell, Buckminster Fuller, and others (in our time, Peter Halley and Matthew Barney) are ostentatiously intellectual, lacing their work with titles, captions, essays, narratives, and manifestos that are political, social, personal, art historical, or all of the above. Arthur Carter belongs in neither class.

Carter moves quietly and laterally from perception to drawing to fabrication. And though the double life of this artist would seem like an invitation for critics to tee up and explicate encoded meanings or translate enfolded texts and subtexts, with his sculpture, a headlong ride down the road of interpretive analogy is liable to overshoot the destination. The ideas that he has absorbed, including some sophisticated mathematics and music, are

not illustrated by the work, but remain latent presences within it. Despite his high Modernist tendencies, he is not that committed to either of its two main doubling tendencies: irony (which says one thing only to undercut it) or allegory (which sets metaphor in motion along a continuous play of signs). He is not using parody to take the mickey out of David Smith, Alexander Calder, or Piet Mondrian. Nor do his dancing figures spell out a coded narrative, even if they do have the character of calligraphy and correspond with some of the finest minds in mathematics from Fibonacci (Leonard Pisano, 1170–1240) to Kurt Godel (see fig. 1). Moreover, his aesthetic runs against the grain of a current art scene that revels in destructive satire and baroque extremes of ugliness, from the "Anti-Monumental" polemic of the curatorial agenda at the New Museum to the jokes and ephemera of the Whitney Biennial. One of the many satisfactions of regarding Carter's work is the feeling that one is quietly pulled toward its poetry, not pushed by rhetoric. This is in part because he is among the blessed few talents at work today who realize there is art apart from politics, including the increasingly boring politics of identity. This is not to say that he is an epigone of a bygone style. Nor that he is a Postmodernist, Post-Minimalist, or Post-Constructivist. Frankly, the best way to situate Carter within the art of our time is to forget the art of our time for a moment. And this will annoy many.

Carter lives and works in the present using an aesthetic language coined eighty years before by the Constructivists and comprehensible to any Formalist today. Form is one touchstone. In a rollicking erotic poem the artist wrote in 1980, "Smudges of Desire," he uses the word "form" nineteen times in the space of 178 lines. Beauty is another. Unabashedly fond of the word, Carter pairs it with "elegance" in a defiantly idealistic

way. During a studio visit and interview in the summer of 2008 he offered this basic set of artistic guidelines: *I like to keep the slate pure and clean. My work focuses on simplifying and eliminating the excessive. The question is, how does purity of design lend itself to making a beautiful and elegant piece? In basic terms, the important criteria are that it is original, not derivative, even if it is closely connected to Constructivism. It has to be simple. Beyond that, it must have elegance and beauty. Simplicity may be the most difficult to achieve. Perhaps too much time is spent concentrating on these principles, but they are basic to my work.*

Drawn to Steel

As Peter Kaplan points out in his captivating portrait at the end of this volume, art is the fourth act of Carter's life story. After a phenomenal walk down Wall Street, he made a second career as a serial entrepreneur, owning one hundred different operating companies, many of which he created and continues to run. A bright red industrial spring stands two feet tall on his drawing table—it was made in one of his factories. His third career was publishing, as founding publisher of both the *Litchfield County Times* and *The New York Observer*. A student of the *Tao Te Ching* for four decades, he speaks with the aphoristic clarity of a *sheng ren* (圣人, sage) about his business philosophy, which could double as a guide to the asceticism of his studio practice: *The simpler the economics are, the better. If you don't understand it, you don't do it. Purity in both design and business functions means never dilute, never diffuse, and never bloat.*

One of the perks of media ownership is the prerogative to create the look of a publication. As with editorial direction, design in the newsroom is a decision-making process that melds display type (for headlines, pull quotes, and captions), the flow of text

columns, and the placement of photographs and illustrations. Carter actively tweaked the Classical grid of his newspapers. The creative challenge is more than just establishing an "if it bleeds it leads" hierarchy for stories. Great publication design is curatorial. It guides the reader through a syntactic flow of stories and images that strikes a balance through counterpoint, avoiding monotony and repetition while moving the eye quickly through what is most important on each spread. One technical similarity between layout and sculpture is the need for cutting—not just editorial pruning, but the precise razor work of the "cut and paste" era. This technique resembles torch-cutting in the metal shop, where the precise delineation of forms depends on a sure hand and eye. The test, before the computer-automated days of Quark and Photoshop, was to snip a clean silhouette from a photograph around which type would be flowed and kerned. This skill is obvious in the calculated anatomy of Carter's drawings, the trim edge-work of his steel sculptures, and the clean, tape-guided geometries of his paintings.

Carter was not the first sculptor of our time to launch his art career in the graphic design studio. Alexander Liberman, the legendary Condé Nast design director, blazed this trail. He and Carter were neighbors in Connecticut, and the sole sculpture on Carter's grounds not by his own hands is *Diablo*, a terrific, complex monumental Liberman that may very well have been Liberman's best work (see fig. 2). It stands at the foreground of a meadow, before the rolling hills in view from the front door of the main house. From their design battles, both Liberman and Carter extracted aesthetics they could pursue in the studio, using compositional muscles, well toned from years of filling—issue by issue—every page of their publications with visual interest and significance.

In the steady shuttle between the studio and welding shop, the vital sense that something else is always going on in Carter's art persists. This feeling may be partly attributable to the blur of the past, present, and future caused by the phenomenal progress Carter has made during a relatively short time span (even by comparison with his three earlier careers), an achievement noted by his good friend the eminent critic Hilton Kramer. Kramer not only encouraged Carter early on but wrote the essays for several catalogues published in conjunction with Carter's solo exhibitions at the Salander-O'Reilly Galleries in New York and the Tennessee State Museum in Nashville. In his essay for the Tennessee exhibition, Kramer, who was never lavish in his praise of anything but mastery during his tenure as the chief art critic of *The New York Times*, concluded with an admiring observation about the proleptic nature of the "architectonic" pieces that resonates in Carter's work of that time: "For they are not only constructed of the kinds of geometric forms that are familiar to us in modernist architecture but they also lend themselves to being seen as maquettes, or prototypes, destined to be enlarged to a monumental scale in some modern architectural setting. Their constituent vertical and circular masses are weightier in their girth than Carter's earlier work and more emphatically geometric in form, and they rise from their respective plinths with a more insistent perpendicularity. At the same time, their surfaces are burnished to achieve a softer, pewter-like skin that is more sympathetic to the eye and the hand. These architectonic constructions make a distinct advance in Arthur Carter's sculptural development, and augur well for its future."[3]

When an artist is developing this rapidly, his current work is wrapped with the intimation of "something evermore about to be," to quote Wordsworth's *Prelude* (from

Book VI, in which he rhapsodizes on studying geometry at Cambridge). Each of Carter's sculptures marks a step forward in a succession whose culmination can be extrapolated only in part. Perhaps what is to come can be anticipated on an expanded scale, as Kramer notes, and certainly in the direction of refinement of form and composition, or of elegance through simplification, to use the artist's own terms.

To see like a sculptor is to lend completion to suggestion. Carter may be a marvelous example of how this anticipation occurs, but he is not the first. In 1951 Alexander Calder wrote in response to a survey on "What Abstract Art Means to Me" for the *Museum of Modern Art Bulletin*: "When I use two circles of wire intersecting at right angles, this to me is a sphere—and when I use two or more sheets of metal cut into shapes and mounted at angles to each other, I feel that there is a solid form, perhaps concave, perhaps convex, filling in the dihedral angles between them. I do not have a definite idea of what this would be like, I merely sense it and occupy myself with the shapes one actually sees … Thus what I produce is not precisely what I have in mind—but a sort of sketch, a man-made approximation."[4] Just as Carter's constructions are often visually reminiscent of Calder's, they harmonize along the natural progress from the schemata of drawings to the three-dimensional realization of sculpture.

Constructing a Legacy

To situate Carter and his work historically is to open an album of thinkers: composers, mathematicians, and many artists, including Naum Gabo, Aleksandr Rodchenko, Alexander Archipenko, El Lissitzky, Fritz Glarner, Jan Matulka (a force at the Art Students League starting in 1927 and David Smith's painting teacher), and Max Bill (the Swiss sculptor and arch-theorist who took his Bauhaus training to Latin

America). An important sculpture by Bill, all compressed energy, perches on a low coffee table in Carter's Manhattan apartment. Carter's response to it is *Suffusion* (1999), a large bronze that has the stellar grace of an armillary sphere (see fig. 3). The Bill in Carter's collection is surrounded by major works by Picasso, Hans Hoffman, and Wassily Kandinsky, among others. These Modernist giants are also, of course, Carter's antecedents, along with the formidable yet lesser-known figures from the sculptural tradition.

Although the early welded sculpture of Picasso, Gonzalez, Calder, and Smith is distinctly figurative—Picasso's *Project for a Monument to Guillaume Apollinaire* is the archetype for the genre (see fig. 4)—a hint of Carter's work is apparent in these same artists' most geometric and abstract repertoire, where wires and lines carom at angles resembling advanced shots on a snooker table. Much of this early canon of abstraction exists on paper. For instance, Picasso's sketchbook of July–December 1928 contains a series of drawings, light as air, for the Apollinaire monument. These are related to his earlier "constellation" drawings published in 1925 in *La Revolution Surrealiste* as well as to the enigmatic central tangle of lines in *Peintre et modèle tricotant* (*Painter with Model Knitting*) (1927), an etching included in an edition of Honoré de Balzac's "Le chef-d'oevre inconnu" ("The Unknown Masterpiece") (see fig. 5). Take these and add Kandinsky's lithograph for the spring 1938 edition of *Verve* dedicated to "etoiles" or Miro's *Constellations* on paper, and the idiom is established. For its sculptural realization, turn to Calder's curling *Pistil* (1931) (see fig. 6) or Smith's *Sentinel* (1961) (see fig. 7) as additional references.

Carter has a curious system for relating his completed works to the canon. Once a piece is finished, he conducts "research" to ensure that it does not infringe too closely upon any precedent. This process is interesting in and of itself because it prevents him from making work in response to an evasive maneuver to steer clear of an existing sculpture, often a primary concern of contemporary artists, most of whom would find the sequence of making first and checking later backward. It also permits him to work, even in series, unencumbered by the often paralyzing fear of repetition. As Carter notes: *Once the piece is completed, I begin to research what might be its evolution. One only has to study the twentieth century; that is clearly the most relevant period. Some of the research is related to the art, as well as the interplay of mechanics, materials, and graphics, such as the tools for cutting and finishing, and the development of materials that only came about in the last half of the twentieth century, e.g. stainless steel.*

To start his research, Carter often pulls down his well-thumbed copy of George Rickey's magisterial book *Constructivism: Origins and Evolution*. Carter and Rickey have much in common, not only in terms of their soaring stainless-steel sculptures but also in how they structured their work spaces. Rickey's studio was a tiny shack-like appendage to his kitchen, where, like Carter, he tinkered with small wire and steel constructions that days later, if they swung just right and were balanced, would serve as models for the twenty or thirty-foot-tall welded structures that would be constructed in a hangar down the driveway. There, a team (consisting mainly of engineering students from Rensselaer Polytechnic Institute) was ready to fabricate them (see fig. 8).

Rickey's book, dedicated "To Gabo," is remarkable. It offers an encyclopedic survey of the Suprematists, Constructivists, and Minimalists from the viewpoint of an

artist who may have been in the thick of the action in 1967 but who wrote with the dispassionate eye of a scholar. (It modestly includes only one reference to Rickey's own work, and that is in the third person.) He explores the persistence of Constructivism in the mid-1960s, when fitful gusts of Pop and Minimalism were colliding with late exhalations of second-generation Abstract Expressionism. Many moments in Rickey's book can be applied to Carter and the progression of his work. For example, he celebrates the welded steel joint: "It has permitted the sculptor to outdistance the architect and even the bridge builder." In a passage that appears opposite an illustration of a Donald Judd stack, he ponders the significance of "multiples" and series: "There is also a belief, special to our time, that an artist must develop exhaustively all the possibilities of minute differences within a particular idea. This procedure, while resembling science, is not borrowed from it; the scientist, as soon as a new door is open, passes through. But an artist will linger and examine every aspect of a room, even when the doors are open."[5] Further along, he turns to the particular way in which the Constructivists responded to the world around them: "Nature as landscape, still-life, or portraiture is ignored; but nature, as a great fount of physical phenomena, inexorable laws, and orderly relationships, is investigated by the artist and made the vehicle for his statement. Forces such as gravity or energy such as light, serve as stimuli for the observer, supplanting those projections of the appearance of the natural world which formerly had made the face of art. Thus nature, as aerodynamics, mathematical relationships, probability, chance, or magnetic lines of force is turned, by the artist's hand, to confront the observer. The artist himself then withdraws, sometimes covering his tracks by the use of an alter fabrication as his alter ego, and a title, which reads like a science textbook."[6]

What lends Rickey's book its remarkable currency is the continued relevance of Constructivism in our time. Constructivism, like its more austere cousin Minimalism, is a movement too dynamic to roll over and become an historic school. It pervades today's painting and sculpture, as well as architecture and design, including both graphic and fashion design. After its beginnings in Holland and Russia in the early 1920s, it took hold in Germany's Bauhaus of the 1930s before migrating to the United States, to such centers as the Cranbrook Academy of Art in Michigan and New York City, where it was promulgated by the ardent group of painters gathered around Piet Mondrian (Ilya Bolotowsky, Charmion von Wiegand, and others). Arthur Carter's work offers the latest affirmation of just how right Rickey was in his claims for Constructivism.

Together with art history and graphic design, an important element in Carter's intellectual background is his love of mathematics. While earning his MBA at the Amos Tuck School of Business Administration at Dartmouth College., he became a student of the great mathematician John Kemeny, who was Albert Einstein's graduate assistant at Princeton University and later the president of Dartmouth College. Kemeny (who shared Carter's Hungarian background) predicted that his student—had he not gone into finance—would have had a bright future in mathematics. Just as Carter's natural talent in mathematics aided him in business, it plays an important role in his studio. His work reflects an exceptional grasp of the ideas about recursive visual processing, mirror imagery, and "strange loops" offered in *Gödel, Escher, Bach: An Eternal Golden Braid,* the weird and brilliant cult classic by computer scientist Douglas R. Hofstadter. Carter cites it as one of the central books in his library, a vatic experiment in aesthetics (it was published in 1979 on the cusp of the cybernetic revolution) that has been instrumental to

his own way of weaving mathematics, art, and music. This mathematical thinking is at its most literal in *Octacube*, one of Carter's earliest works—its original fabrication was in wood, later to be rendered in silver and copper (see fig. 9).

Carter is especially inspired by the ideas of Fibonacci, the pioneering mathematician who launched a renaissance in mathematics. Based soundly on Euclid, and inspired by the Classical geometries of Diophantus (200–284 CE) and Al-Kharkhi (910–929 CE), Fibonacci's work offered new solutions to a mathematical chestnut involving the sequence of numbers made by adding two terms to produce a third term, which is in turn added to the sum of the two previous terms. (Starting with two "seeds" 0 and 1, the sequence 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89 and so forth is produced.) Carter uses this sequence as a compositional tool (as opposed to as subject matter or a way of embedding meaning). This prevents the stasis created by fixed intervals multiplied across vast series (at its best exemplified in the precise work of Donald Judd, Walter De Maria, and Sol LeWitt, but at its worst ending in arid redundancy both in art and architecture). By contrast with the additive formulae of symmetrical geometries, most of which are quadratic in nature, the Fibonacci sequence lends itself to curves. It is both mathematically abstract and natural. It originated as a calculation of the reproductive rate of rabbits and also describes the spiral of the chambered nautilus and the placement of the sound-holes in Antonio Stradivari's violins. Carter relies on it, in part, to assist him in determining the points of intersection between straight and curved elements in the sculpture (see fig. 10). What gives Carter's work its fresh appeal is his avoidance of predictability and symmetry, the demons of tautology. This is in part because of the elegant intricacy of the Fibonacci sequence, which though numerical, flows with a visual

variety that is organic rather than mechanical. An intellectual undercurrent more felt than seen in Carter's work, the ratios guide the proportions like a pair of mental calipers; they are so ingrained in his compositional sense that he can gauge them by eye. The *sub rasa* role of the ratios confers a powerful if subliminal sense of order to the proportions and points of intersection in the work.

States of Grace

The additive progression from light, open sketch to more heavily worked statement is a common tendency in many art forms, including music with its themes and variations. Carter's serial alterations resemble that other great medium that calls for the cutting, burnishing, scraping and polishing of metal: etching. Moving inductively from state to state, accumulating marks that give the later states their heft, the etcher is a kind of serial metalworker with a graphic agenda. Considering Carter's work in a state-by-state order, let us start with the drawings and where they are made, and that takes us a little over two hours from Manhattan to a 1,500-acre farm in Connecticut, to a house originally built in 1691, and, 230 paces along a lilac-lined path from its front door, to Carter's studio. The farm is tucked into the hills near Roxbury, and from across the property, the artist hears the faint treble of the brook that feeds the Shepaug River.

Carter's sprawling farm includes a studio of his own design, with tall windows facing the woods, perfect acoustics, and a massive stone fireplace (see fig. 11). A white barn down the road, with sixty feet of clearance for the tallest work, houses the shop where, six days a week, from early morning until well into the evening, he and two assistants fabricate his sculptures. They torch-cut and arc-weld by hand, working from light, open drawings and wire maquettes. The two assistants are brothers who live on the

farm in houses that are within sight of the shop. Carter trained them in welding and metal work, teaching them the techniques he learned in the Coast Guard and later polished at the prestigious Polich Tallix Fine Art Foundry (where his first sculptures were made).

The "material culture" and cacophony of the shop is the opposite of the sealed studio where Carter draws and creates models from copper wire and clay in silence. And it is the drawings that bring us close to the artist's thinking. They reveal the fundamental decisions that the paintings or sculptures conceal: the confidence of a ruled line, the wavering hesitation as pressure is applied to pencil, or the flurry of erasures that dissolve an earlier idea. The modesty of a sculpture's beginnings is disarming, as Carter reveals: *You don't really need much—a pencil and a piece of paper. For many months there may be no new ideas, but the fabrication of the structures in play continues. The production of a piece usually takes a minimum of one month from start to finish, from drawing to maquette, coupled with revisions. While the work is in the shop I begin the process all over again.*

The call and response between Carter's drawings and sculpture is a tangible aspect of doing one thing while really doing another. His drawings are preparatory as opposed to a posteriori (as Richard Serra's mostly are). He scales them up from small, swiftly made studies to larger, more carefully rendered plans. Though these later versions are not as precise as the final blueprints for a thirty-foot-tall steel work would be, they serve to get the fabricators started. Carter usually draws in pencil, and sometimes felt-tip pen and/or charcoal, on small tablets of good woven paper. Even the earliest studies have a remarkable three-dimensionality, the bases sketched in perspective and the circular forms shaded in charcoal to suggest the contours of spheres. Firm lines, guided by a

straight edge, anchor the freer gestures of the curves (see fig. 12). The shorthand of drawing mediates between the mental ideal and the first attempt, often in wire, to create an object based upon it.

The studio is brimming with small copper-wire maquettes, three-dimensional sketches only a few inches high that are set in thick bricks of gray clay and held together by nodes of clay. They crowd the edge of Carter's desk like the saplings at the border of the woods outside the studio (see figs. 13 and 14). Behind them, larger steel maquettes stand on the floor along the window. The choice of copper wire is practical, of course, because of its easy malleability, but it is also a perfect complement to the linear fluidity of the drawing. The thin, round filament adds volume to the pencil line, while its shiny surface adds a foretaste of the bounce of light that the finished works offer. The maquettes open miniature windows through which other segments of the sculpture pass, an effect that is difficult to render on paper.

Carter's signature style—the airy steel geometry rising from a flat base epitomized by his *Tektonics Thin* group (2000) (see plate TK)—is commonly described as "drawing in space" or "drawing in air." So much of the literature assigned to this genre (going back to Gonzalez and Picasso) emphasizes the positive role of the interstices, sometimes to the extent that the substance of the solid is rendered subordinate. *Entre le vide et l'événement pur* ("between emptiness and the pure event") runs the finest line in Valéry's "Le Cimetière marin," a lyric meditation set on the margin between sea and land that articulates the passage from the void to what comes next. There is equilibrium between steel and air that needs to be struck. As poetic as the windows in Carter's forms are—especially since they often frame an exquisite landscape or

architectural detail—the eye is firmly held by the steel itself. It travels along the ribbons of the early, cobra-like *Morph* (1998) (see fig. 15), an unusually monolithic work, or the later *Elliptical Loops* (2005) (see plate TK), clinging to the switchbacks and curves as they accelerate and then return to the base. Steel has its own attraction: Relatively unknown as an art material until the 1940s, stainless steel was invented in the nineteenth-century but only turned to general use in 1912 or so, when the first flatware was commercially produced. After such a late start, it is just reaching its adolescence as a material for sculpture (stone, bronze, wood, and clay are the venerable old-timers, while LEDs and other techno-gimmicks are allegedly the future). In Carter's hands, it shines brilliant-edged like water, threaded with a luminous grain that lends it an anomalously organic quality, romancing the light with surprising lyricism. Many of Carter's works have rounded or beveled seams sealed with viscous lines of exposed weld that join sheets of stainless steel. Even the welds deliver optical charms, like the rippling scallop overlay at the seams of many of the elliptical works. Some are honed like the outside edge of a hockey skate, pushing the linear continuity of the form to an aggressively precise finish that carves the air all the more crisply than the rounded solid (even in silhouette there is a tighter effect). As with glass or the surface of white Parian marble, light collects along the polished borders, the silvery tone of the steel limned against the blue of the sky or a dull background.

In one of Valéry's favorite anecdotes, the poet Stéphane Mallarmé once coolly admonished Edgar Degas (who was lamenting his inability to convert his surplus of ideas into poems) that "Poetry is made of words, not ideas." Likewise, sculpture is made of steel, not of ideas. This realization is perhaps closer to William Carlos Williams's great

epiphany (expressed in *Paterson*) "No ideas but in things" than to the evanescent Mallarmé. Yet reification brings compromise. Even the most obedient of metals cut and welded with the greatest precision is bound to fall short of the mind's ideal of perfection, as David Smith, Donald Judd, and so many others have found. This does not spell failure per se, but prompts the continued serial progress of sculptors, including Carter, from one version to a closely related revision, each of which assumes the status of a work of art.

The state-by-state declension of Carter's work is not just a matter of moving from drawing to maquette to sculpture, but involves the close interrelationships among the sculptures themselves: Each iteration leads to its variants. Crisply rational, the substantial power of *Mathematika* (1997) (see fig. 16) is partly owing to the solidity of the three squares, especially in the bronze incarnation. This early piece, which explores the basic Pythagorean geometry of the right triangle, is one of Carter's heaviest by impression, although the tipping of the largest square at the top foreshadows a lightness to come. In 2003 Carter revisited the triadic grouping, letting the squares amble into three dimensions, opening the ninety-degree angles in a tipsy, air-filled response to the sober solidity of the original (see fig. 17). The same jaunty disrespect for the plum line is apparent in the earlier series called *Psyche* (1998) (see plates TK), *Elliptyk* (1999) (see plates TK), and *Connecting Irregular Quadrilaterals* (2001) (see plates TK), in which looped rectangular or elliptical forms in ascending chains epitomize Gonzalez's rhapsodic claim that welded sculpture should be "as free as smoke." But Carter was not finished with the triadic idea, yet. A couple of years passed, and he decided to fill in the openings with partial membranes, which paradoxically drew all the more attention to the windows in the pieces even as they added a dose of opacity. The gesture is a hallmark of

several sculptures by Carter, including the painted series of *Overlapping Arcs at 90 Degrees with Inserted Membranes* (see plates TK) as well as the most recent work, as yet untitled, which not only fills in the crescents once traced in air by arcs but gently curves them away from the vertical plum line as well.

For all their rectilinear geometry, there is plenty of motion in Carter's sculpture to enjoy. The sculptures in the elliptical series rise gracefully from the floor before suddenly gaining altitude, turning over at their zeniths, like acrobatic planes, and plunging steeply in swooping descents. *Elliptical Loops* (see plate TK) is a double strand, intertwined in a dance in an erotically charged reminiscence of the spooning *Couple* (1999) (see page TK), one of Carter's best-known works that stands thirty-feet-high on Park Avenue, a sculptural highlight of a stretch of some of the greatest Modernist architecture in the world (including Lever House and the Seagram Building) in which the work is right at home. Remarkably, another version of *Couple* is equally at home in the trim confines of a garden. Carter's sculpture has a compass-like ability to orient both it and the viewer no matter where they meet, a quality in art once noted by the late John Russell, who wrote, "It is fundamental to the white magic of art that it does away with the nightmare of disorientation."[7] Another untitled work from 2005 is monadic, like a Möbius strip, crossing itself a dozen times on the trip up and around and back again, five intersections clustering in one busy knot to one side of the asymmetrical structure, leaving the other side loose and open (see plate TK). With *Continuous Elliptical Loops* (2007) (see plate TK), Carter introduces a stronger horizontal orbit, which pulls apart the crescent top loops, while retaining that cluster of intersections on one side. Then there is the departure signified by the doubling and even quadrupling of the strands in *Interconnecting Ellipses*

(2003), which rises ten feet and tightens the motif in a powerful intimation of the spring tension that would be unleashed if it were to unlock (see fig. 18). Perhaps it is the weight of the multiple ribbons (like the addition of octaves to a melodic line), or the huge scale, or even the more machined look of the brushed steel, but this is the closest Carter's work comes to what a power broker in the sphere of business might be expected to create.

A tight family of work based on what Carter calls "arcs" and "chords" evolves from the interplay of straight lines and delicately extracted curves in a remarkable variety of permutations. The model for the series is an ultra-light drawing in air, *Arc and Chords in Series*, a model made in 2003, which lifts quickly from one single arc and descends momentarily along a chord before shooting up again straight to a peak from which it loops out into another arc. Pay attention to the false start that also rises from the base, going nowhere—for now (see fig. 19). As the series develops, this vestigial chord adds muscle, as do the rest of the components, whose abrupt cubic endings add to the overall sense of solidity the work accrues. At that later stage, the second chord off the base grows to become a parallel spine around which the arcs grow and flow, sinuously descending from the upward trajectory of the two sturdy chords, softening their linear, hard-edged rigidity in a protective coil. Then Carter's simplification takes hold. The spiraling legato of the line in *Three Inverted Arcs with Parallel Chords* (2002) (see plate TK) loosens as it drops to a hip that swings out much farther from the axis than the topmost arc—the amplitude slows the motion and challenges the hegemony of the parallel straight spines. In the early maquette in copper wire, the largest bulge is at the top and the shallowest arc at the bottom—Carter inverted the hierarchy as the series developed.

One of the challenges Carter issues himself in this series is the always tricky introduction of color to objects. In the cinnabar version, which rises from a circular rather than quadrangular base, an even tone of glorious red eases the transition from straight to curved, and the balance of the symmetries between the two arcs and the parallel chords makes this one of the most restful pieces in the series, despite its fluid dynamics. Then Carter introduces membranes, in *Overlapping Arcs at 90 Degrees with Inserted Membranes* (2002) (see plate TK), which he paints with creamy strokes, some in an absorbing gray-green, others in vibrant red and yellow that are signposts to the paintings. The etching has, state by state, acquired color.

To grasp the way these sculptures evolve from one to another, let us return with Carter to the studio, where the sculptor stands alongside the forty-two-inch-high version of *Arc Connected by Two Acute Angles* (2002) (see fig. 20) which is to be the basis for a larger work that was recently commissioned. Between its inception as a drawing six years before and the summer of 2008, when this book was coming together and the artist generously granted a studio visit to open the process for observation, the emphatic thrust of the work has undergone a tremendous metamorphosis. The maquette gently rises to two peaks, flared slightly away from each other. The tallest is formed by a spire that rises from the base tangent to the chord that culminates in the lower peak. They echo one another as accents, but Carter is beginning to contemplate a new set of options. The variables are surprisingly manifold, even abundant. He stands like a dance partner, his right hand resting on top of the highest peak, and his long left forefinger extended out into the air at about the distance of the lower chord's sway but extended in another direction. There is nothing there, but he sees how this wing might swing forward or

backward along an arc that would preserve the Fibonacci-based proportions. A new work emerges from the old (see fig. 21) .

Carter's paintings begin conceptually in much the same way the sculptures do, as drawings that are flagged with bright colors, and he has a simple criterion for how they progress: "They become paintings if I can't build them." At a distance, they bear a strong resemblance to the black grids and primary color regions of Mondrian and his American followers. The writings of both Mondrian and Wassily Kandinsky, particularly the latter's seminal volume *Concerning the Spiritual in Art,* join Rickey's survey of Constructivism as being among the books that have most influenced Carter. For an artist in 2009 to work within one of the strictest formal vocabularies of the early days of Modernism is an astonishing challenge, and not just to the cult of originality that dominates the twenty-first-century art scene. It places the modern artist's work in the midst of a highly regarded existing canon of works, as though he has been granted his wish to time travel to a particular moment in art history, and chose Paris in 1921. Mondrian himself left the door wide open, writing in "Plastic Art and Pure Plastic Art," an exhilarating essay he published in 1936: "If all art has demonstrated that to establish the force, tension and movement of the forms, and the intensity of the colors of reality, it is necessary that these should be purified and transformed, if all art has purified and transformed and is still purifying and transforming these forms of reality and their mutual relations; if all art is thus a continually deepening process: why then stop halfway?"[8] Carter takes Mondrian at his word and continues the deepening with ever bolder black lines and rich juxtapositions of blue and red (see fig. 22). Looking again, we see diagonals that Mondrian would never have countenanced (he insisted on orthogonals),

and complex blues or yellows that slyly slip out of the closed chamber of the primaries. The effective range of grays alone is liberating, from the absorbent matte of a naval hull to pearlescent lustres, as are the embedded black lines within red rectangles that start and stop—just like Carter's sculptural chords—of their own volition. Modernist orthodoxy deserves this kind of reinterpretation. When musicians awoke to the possibilities opened by Schoenberg's twelve-tone system—rather than focused on the strictures it seemingly imposed—they realized that merely from a mathematical standpoint, their range of compositional tactics had broadened. In much the same way, Carter's work is an expression of possibility, not restriction: How open or closed can an angle be made? How far off the perpendicular plum line can a cubical form be shifted? In the privileged relationships once assumed to be finite, he reveals what is actually infinite. In other words, the finger Carter held in air just outside the sculpture could arrive at any point, around or up or down.

Along the Edge

It may seem sacrilegious to suggest that touching a sculpture is a good idea (especially a pristine stainless steel surface), but the haptic appreciation of small bronzes has always been an important aspect of connoisseurship. And in fact Carter, in his studio, is always laying a hand on one piece or another. There are two ways to enjoy his work by touch. One is to let the hand travel along a swooping curve or up to the point accentuated by a jutting corner, to feel the grain of the steel and the remarkable precision of the edges. Those joints between two plates of steel are not easy to make. Another is almost musical in its activation of the kinetic properties of the slender structures—to pluck them. Like a tuning fork, the freestanding steel will vibrate for as much as minute or more after a light-

fingered strumming, trembling on its own across a tight arc at its tip. The hum is inaudible and the blur is invisible (unlike the famous image of the Gabo kinetic sculpture, which wavers across a sine wave), but the tuning fork stuck in space instantly transforms the surroundings. It activates the air to a chosen wavelength, a formal basis upon which, as with the visual focus of the work, the ambient sensations are attuned. The musical analogy is not a stretch in Carter's case. Entering his Connecticut house or the New York apartment, one's first sight is a concert grand piano, upon which he plays a broad repertoire, from Bach and Scarlatti through Chopin, Liszt, and Brahms. As a child in Woodmere, Long Island, Carter pursued a serious course of piano study that nearly led to a career in classical music. (Concerns about making a living led him to Brown University and eventually to an MBA from Dartmouth's Tuck School.) That level of skill presumes a competence in musical thought and a familiarity with the inner workings of music: its rhythmic intervals, structural relationships and, for lack of a more neutral term, stratagems that offer parallels in geometrical sculpture.

There is another parallel to consider, one between two estimable artistic innovators alike in many ways. On his drive back and forth between the studio and Manhattan, Carter passes a small brown roadside sign directing traffic (precious little) to the birthplace museum honoring Charles Ives, who with Aaron Copland and John Cage is among the most significant innovators in American music. It is hard to resist comparing Ives and Carter. Ives, an admirer of Picasso's sculpture, was a Modernist whose pragmatic spiritualism was based on an impassioned reading of Ralph Waldo Emerson. Like Carter, Ives was an immensely successful financier. Considered the father of estate planning, his mastery of the mathematics of actuarial tables was matched by the verbal

dexterity he displayed in the newspaper advertising copy he wrote for the insurance company he started a few years after graduating from Yale. Carter is also known for his snappy writing, for the news and editorial copy he contributed to his newspapers (sometimes under the pen name Veblen). Both Ives and Carter supported publications. (In Ives's case he kept alive the important journal, *Perspectives on New Music*.) The cohesion of an Ives score, finally, is especially like one of Carter's syncopated asymmetrical dancing cubes. Both let the rhythms and ideas roll along their individual ways without imposing undue restraints. Ives had a knack for holding tight on the reins of two motifs, rhythms, or key signatures simultaneously (he even shuttled between two upright pianos that were tuned apart), a maddening use of doubling for those who have trouble listening to two jarringly different sounds at once. If there are two Ives pieces to enjoy while contemplating Carter's sculpture, the most fitting are the allegretto of the Fourth Symphony, for the way it bends the tones in Carter-esque arcs, and the third, most pensive section of *Three Places in New England* (1903–1914), "The Housatonic at Stockbridge," which gently carries a winding line up and around a steady, straight chord before descending again. There are even technical similarities between the feline way that Ives would let a piece fade away at its close just as Carter's ellipses return from their flights to their bases, his textures of quotation (much like Carter's invocations of Smith or Mondrian), the cumulative variations and—to borrow an original phrase that captured the fancy of Schoenberg—his "shadow counterpoint."

Ives operated in a near-innocent aesthetic locale, outside the academic and avant-garde mainstream of the moment (practically every study or biography uses the term "vacuum" to describe his isolation); although the story that he had no awareness of such

Modern masters as Schoenberg and Stravinsky is apocryphal. Carter occupies his own curious place away from the Chelsea-Berlin-Basel-Miami circuit, content to invent on his own terms. "My greatest fantasy is to just get away … I mean really get far away," Carter confides. Ives in his tiny composing shack in the West Redding and Carter in his studio not far away, have listened to brooks feeding the same river, drove along the same hills to their offices in Manhattan. Not far away in Hartford, another insurance executive named Wallace Stevens was tucking some of the greatest Modernist poems into his desk drawer each evening, including the appropriate line from his "Adagia," "The momentum of the mind is all toward abstraction."[9]

Coda

One incomparable July afternoon, Carter relaxes on the couch of his home in Remsenburg on the east end of Long Island, where a luminous pair of prints by Robert Mangold on the wall suggest another comparison to one of the great artist-thinkers of our time. The sun glitters along the waves of Moriches Bay and the sail of a yacht passing westward is framed by the triangular aperture at the core of his early work *Mathematika*, which is poised on the lawn between the house and the waves. Carter is shuffling through printouts of the images for the present volume, commenting on the genesis of various works, handling questions on technique, skirting explications of meaning. After rapidly turning over a thick stack of images, he slows, pausing to look at a particularly complex recent work. Shifting the sheet to his left hand, momentarily bemused, he begins to trace an idea over it with his right forefinger, indicating how the piece might provide the basis for a variation that would in essence fill in the gaps: *Now here's a steel work that might be cast in bronze. Or what if we create some membranes to block the open areas? One*

might solidify parts of it, or the whole structure, or expand the aperture. That's one way to approach the process. Perhaps the structure could be changed, not necessarily for the better. One part could be changed from space to solid, or the reverse. That is the fundamental theory. Once it is completed and then observed with the possibility for organic change. Take a simple piece and there are a range of variations one could apply. Here, for instance, what if…

Carter's voice trails off. A sculptural project of this magnitude is expected to drive to its cadence, a solid *quod est demonstratum* delivered in a declarative tone. By contrast, the telling note in that statement is the recurring conjunction that debate coaches warn rhetoricians to avoid when starting a strong argument. It opens possibilities, and it is anything but a last word: *if*.

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[1] *L'aria a piena d'infinite linie rette e radiose insieme intersegate e intessute sanza ochupatione luna dellaltra rapresantano aqualunche obieto lauera forma della lor chagione.*
[2] Paul Valery, "The Method of Leonardo" in *Leonardo, Poe, Mallarme*. Translated by Malcolm Cowley and James R. Lawler. (Princeton: Princeton University Press, 1972), pp. 3-63.
[3] Hilton Kramer, *Arthur Carter: Stainless Steel* (Nashville: Tennessee State Museum, 2004), not paginated.
[4] Alexander Calder, "What Abstract Art Means to Me," cited in *Picasso and the Age of Iron*, edited by Carmen Gimenez (New York: Guggenheim Museum, 1993), pp. 290-291.

[5] George Rickey, *Constructivism: Origins and Evolution* (New York: George Braziller, 1967), p. 81.
[6] Rickey, op. cit., p. 81.
[7] John Russell, "Art Tells Us Where We Are," first published in *The New York Times* in 1981, collected in *Reading Russell* (London: Thames & Hudson, 1989), p. 184.
[8] Piet Mondrian, *Plastic Art and Pure Plastic Art* (New York: Wittenborn, 1945), p. 61.
[9] Wallace Stevens, "Adagia," in *Opus Posthumous* (New York: Knopf, 1980), p. 179.