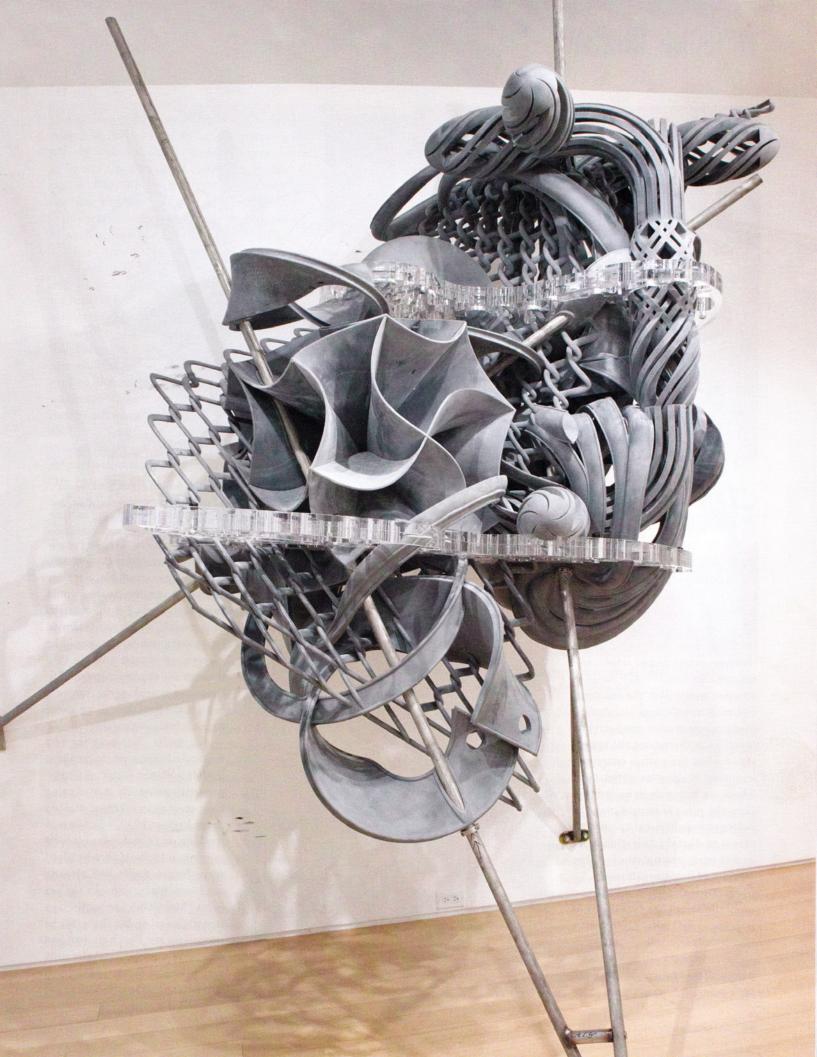


This month, when the Museum of Arts and Design in New York opens its show "Out of Hand: Materializing the Postdigital"—the first by a major museum to examine "the increasingly important role of digital fabrication in contemporary art, architecture and design practice"—among the more than 80 artists represented in it will be Frank Stella. It might seem strange to some that an artist who started out in the 1950s and had a retrospective at MoMA as early as 1970 would be making work with 3-D printing technology just like some straight-out-of-art-school kid, but to those familiar with Stella's protean nature and taste for boundary-pushing, it makes complete sense. Having first attracted attention with flatter-than-flat hard-edged paintings, Stella has been steadily expanding into space ever since, beginning with low relief and collage and proceeding to curved canvases, paintings with projecting sculpture-like elements, and out-and-out sculpture—although Stella prefers to think of his free-standing works as paintings in three dimensions or "sculptural paintings," rather than sculptures.



## WORKING IN SPACE





Previous spread, from left: Frank Stella, Odelsk III (Polish Village #11), 1971, acrylic and cloth on plywood, 90 x 132 x 5 ½ inches; K.359, 2012, mixed media, 124 x 111 x 77 inches. This page, clockwise from top left: K.17 (lattice variation), 2008, spray painted alumide RPT, 24 x 28 x 17 inches; K.94 (3rd Version), 2006, alumide RPT, spray paint and stainless steel tubing, 21 x 25 x 20 inches; K.162, 2011, mixed media, 22 x 22 x 24 inches.

For the MAD show, Stella has contributed two works, *K.* 179 (2011) and *K.* 162 (2011), from his "Scarlatti Sonata Kirkpatrick" series, named after the Italian Baroque composer Domenico Scarlatti and the 20th-century American harpsichordist and scholar Ralph Kirkpatrick, who published a critical edition of Scarlatti's works. (Stella is well-known for naming his series in homage to cul-

tural figures or geographic places that have personal and artistic significance for him.) *K. 179* hangs in an open stairwell at the museum, and with its wild hues and curling steel projections that reach out like tentacles, it dominates the understated white space while conveying a sense of floating weightlessness. About six feet wide in each direction, the piece is mostly made of protogen—a chemical compound that is to digital fabrication more or less what protoplasm is to the creation of living organisms.

In digital fabrication—an umbrella term that includes 3-D printing as well as CNC (computer numerically-controlled) machining and even digital knitting—the artist visualizes and designs the work on a computer, which then sends

detailed instructions to machines that extrude and shape the pliable material. Essentially, it's a way of translating one's visions into reality with a degree of freedom previously inaccessible, certainly at such speed. In some cases, it can construct objects that would be impossible to shape using traditional methods. For the Scarlatti series, Stella started with handmade models, which were scanned

into a computer so they could be viewed on screen and rotated through 360 degrees. After modifications were made to the computer images, the final designs were sent to the fabricating machines.

For Stella, 3-D printing is a particularly appropriate medium, in that it makes sculpting analogous to drawing. He started using computers as an aid to art-making as far back as 1990, when he was working on an architectural commission in Holland that involved wave forms. Stella had already used such forms to evoke the sea in his "Moby Dick" series, begun a few years earlier, but the waves he needed for the Dutch project had compound curves, and the only way to model those was to use a computer program. So Stella's use



of 3-D imaging has been driven by artistic needpart of his lifelong need, in fact, to come to grips visually with space itself—rather than any desire to be an early adopter of cutting-edge technology. William O'Reilly, a partner at Freedman Art, the New York gallery that represents Stella, puts it this way: "Frank's not a slave to techniques; he's just using them. He's not a 'process artist."

He is, nonetheless, undeniably cutting-edge at the age of 77, as MAD is acknowledging not only by including him in its show but by making him the 2013 recipient of its annual Visionary Award, which he will receive at the museum's Visionaries! gala on November 20. MAD curator Ron Labaco describes Stella this way: "Painter, printmaker, sculptor, and architect, his works explore dimensionality in unconventional ways, and have revealed his never-ending quest to push the boundaries of not just medium but materials." That freedom from convention places Stella in line with the mission of an institution that for the past half-century has been intent on charting "the blur zone between art, design, and craft."

With the Scarlatti K series, Stella is also blurring the lines between visual art and music. While certainly not synesthesic himself-he told an interviewer on the occasion of the series' showing at the Phillips Collection in Washington, D.C., "Actually, I'm pretty tone-deaf"—he finds common ground between music and art, specifically abstract art. He told the same interviewer, "Music is essentially abstract, so it's a nice reinforcement for painting, for abstract painting, in a way. Music doesn't have to defend itself much about abstraction."

Abstraction has always been Stella's basic mode as an artist, dating back even to his school days. Born to Italian immigrant parents in Malden, Mass., in 1936, he attended Phillips Academy in Andover, an old-line prep school with a very up-to-date art program. Stella studied with the abstract painter Patrick Morgan, who had connections to the Abstract Expressionist circle in New York, and the school's art department was imbued with the Bauhaus philosophy, brought in by teachers who had studied with Josef Albers at Yale. From Andover Stella went to Princeton, where he majored in history but continued to study art with the painter Steven Greene. Princeton was close enough to New York for Stella to educate his eye by frequenting the galleries there, as well. The art critic Michael Fried, a fellow undergraduate, recalled meeting Stella for the first time at a meeting of the campus literary magazine. Everyone else was talking, but Stella "had a large pad of paper on his lap and was drawing intently with a black magic marker, or whatever the equivalent then was. His drawings were abstract...and they were filled with pictorial energy of a kind I had never seen....The excitement of that first



The Hyena, 1985-89, linoleum block with hand-coloring, collage, silkscreen and lithograph, 67 3/4 x 54 1/2 in; ed. 60

sighting has stayed with me to the present moment."

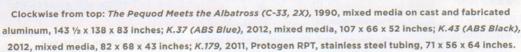
After graduating in 1958, Stella went to New York, where he found work as a house painter. But his house painting days didn't last long, because almost right away he made a sensation in the art world with a bold, declarative statement-the Black Paintings, shown at Leo Castelli Gallery. Using black mixed with a tiny bit of white, he placed stripe against stripe in regular patterns, each one separated from the other by an extremely thin line of unpainted canvas. These paintings were seen as a reaction to or even an attack on the exuberant, gestural Ab Ex style, and Stella was definitely inspired by a Jasper Johns flag painting, but he has insisted that the Black Paintings were "my own version of Abstract Expressionism." He saw himself as trying to solve the same problems by different means, trying to grasp space by reducing it to its infinitesimal version—that is, to surface.

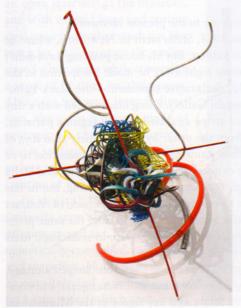
These paintings and his next major phase, the Stripe Paintings, in which the stripes were colored but still rectangular and completely flat, established Stella as a key figure in the Minimalism WORKING IN SPACE

that was taking shape in the '60s. But Stella didn't want to commit to any dogma or be affiliated with any school, and he soon moved toward what he eventually called, somewhat waggishly, "Maximalism." The first iteration of this was his Irregular Polygon series in 1965–66, in which the geometric patterns became thoroughly asymmetrical designs on shaped canvases. Next came the Protractor series, starting in 1967, in which Stella introduced curves into his work, prefiguring his use of actual French curves (the architect's drawing aide) in low-relief collages of his Exotic Bird series of the mid-'70s. Stella became interested in Islamic ornament during a trip to Iran in 1963, which led to what he called his

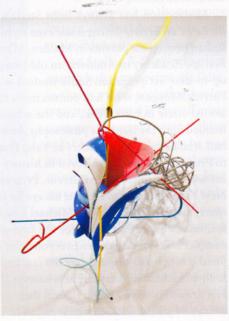
Persian Paintings. Ornament has generally been considered taboo in modernist art and architecture—certainly by the Bauhaus—but Stella was perceptive enough to realize that geometrical ornament was actually pre-20th-century abstract art.

His restoration of ornament in his own work has a lot to do with his general project of situating himself within the sweep of art history, a subject in which he has always taken a great deal of interest. In 1984 he gave the Charles Eliot Norton Lectures at Harvard, which were published under the title Working Space. Here he traced modernist abstraction back to what he saw as its root in the Western art tradition—the work of Caravaggio. The great naturalist and realist, according to Stella's analysis, freed pictorial space from its former subservience to architecture and sculpture, making it "capable of dissolving its own perimeter"













Clockwise from top left: K.161a, 2011, mixed media, 20 x 20 x 20 inches; K.79, 2010, titanium, polyurethane enamel and hand spray painted by artist, 14 x 14 x 11 inches; Cantahar, 1998, planographic, intaglio, stencil, relief color lithograph, screenprint, etching, aquatint and relief, 52.36 x 52.52 inches, AP7, edition of 40, 14.

and surface plane." Stella wrote, "It is the legacy of Caravaggio's space and Caravaggio's illusionism that tipped the scales decisively in favor of abstraction by the middle of the twentieth century."

In Working Space Stella spoke of the "unfettered expandability" of abstraction at its best, if it could fulfill its promise. In search of that fulfillment, his own work has been steadily expand-

ing in space, from the relief of his Polish Village series, created with collage and layering with cardboard, to the Moby Dick paintings, in which relief gives way to outright three-dimensionality within the context of a picture frame, and of course to his architectural and free-standing sculptural works and now the Scarlatti K series. Another of Stella's artistic heroes is Wassily Kandinsky, whose critical works he discovered at Princeton. For Stella, Kandinsky, at the very dawn of modernism and abstraction, early on pointed the way forward out of the dryness and sterility of pure geometry, toward a vibrant, gestural and dynamic art. Kandinsky

never stopped following that path, according to Stella, who sees great importance in the Russian master's generally reviled late work, and in fact describes some of the structures in the Scarlatti pieces as being "quite reminiscent of the armatures in the forms in the late paintings of Kandinsky."

Kandinsky's great work of theory is titled On the Spiritual in



Art. Stella has said that he doesn't relate to the word "spiritual" and doesn't see a place for spirituality in art today. For him, the value of Kandinsky is graphic, having to do with basic artistic things like space, gesture, color. Stella likes to theorize, but fundamentally, he's down to earth; his true interest lies in creating physical things that affect the mind by way of the eye. "My painting is based on the fact that only what can be seen there is there," he has said. "It really is an object...All I want anyone to get out of my paintings, and all I ever get out of them, is the fact that you can see the whole idea without any confusion...What you see is what you see." 🖾