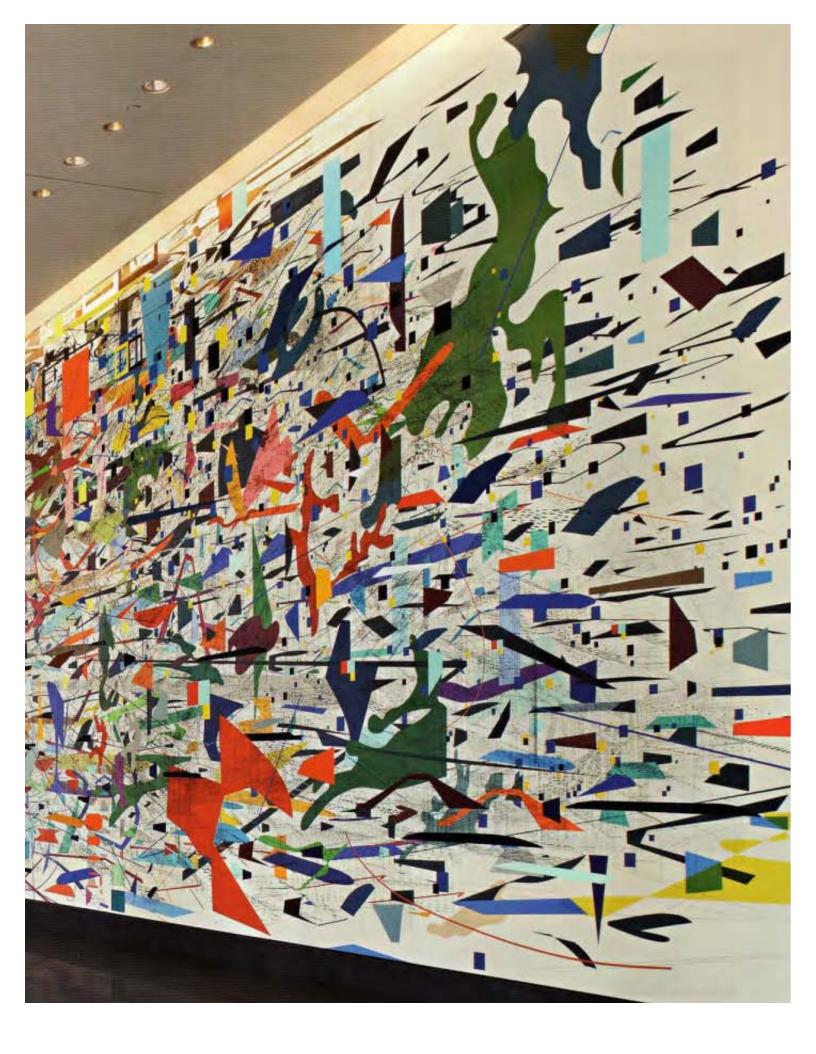
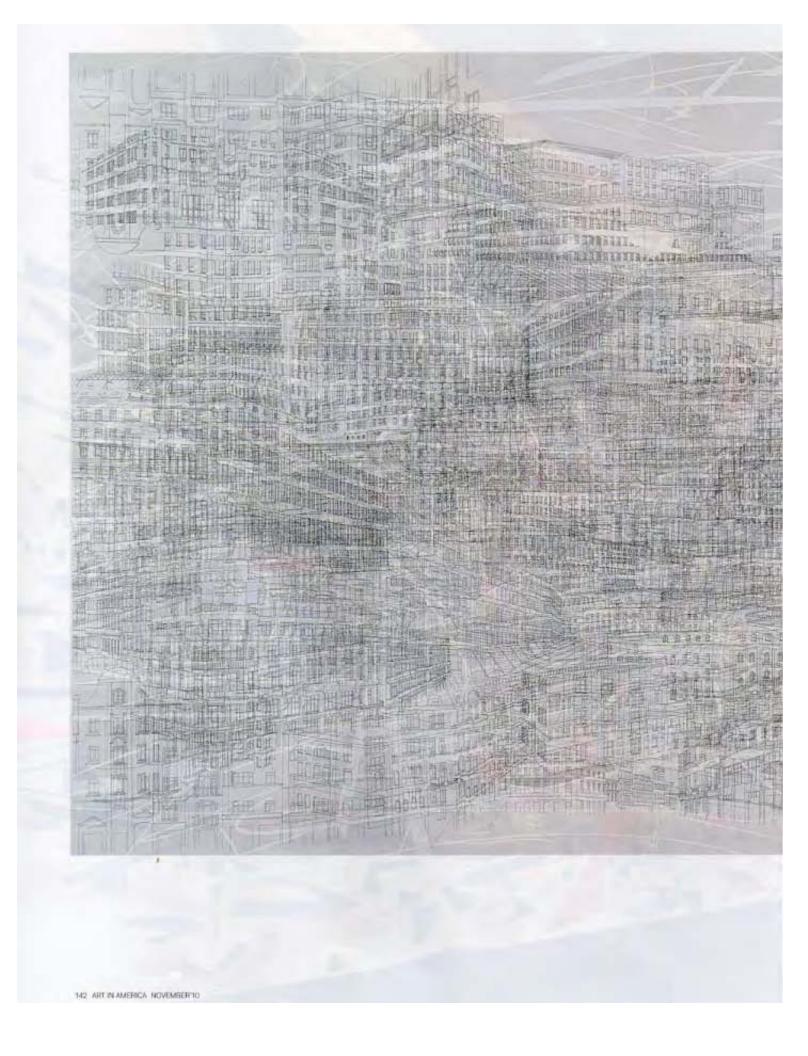
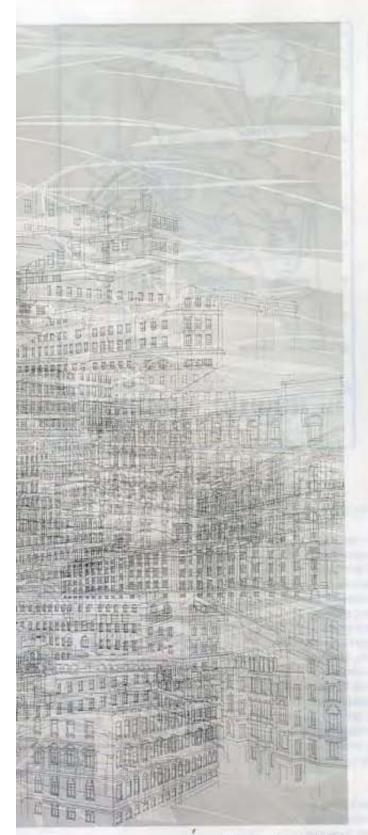
INVISIBLE NETWORKS With a recent exhibition and a sweeping mural in New York, Julie Mehretu exemplifies a host of artists using schematic formats to translate data and trace systemic links, from the personal to the global BY ELEANOR HEARTNEY







Mehretu: Berliner Plátze, 2008-09, ink and acrylic on canvas, 120 by 168 inches. Deutsche Guggenheim, Berlin, Courtesy Deutsche Bank AG/ Solomon R. Guggenheim Foundation.

CURRENTLY ON VIEW

"Julie Mehretu: Notations After the Ring," The Arnold and Marie Schwartz Gallery Met, Metropolitan Opera House, Lincoln Center, New York, Sept. 23, 2010-Jan. 29, 2011

HOW DO WE BEGIN to grasp the ineffable forces that are shaping our world and our lives? "Globalism," that all-purpose bogeyman, stands for a system that moves capital, man power, goods and services around the world with the apparent effortlessness of a computer keystroke. In the nebulous place called cyberspace, invisible webs entangle every aspect of life, from an economy undone by shadow banks, abstract financial instruments and trading schemes that no one understands to the "virtual" social networking that now frays our connections with the people who actually surround us. Consequently, as we have recently seen with the fiscal meltdown in the U.S., when things go wrong, their reverberations ripple outward at a previously unimaginable speed.

With a pair of projects shown this spring, Julie Mehretu-40 years old, born in Ethiopia and living in New York—has emerged as the premier artistic chronicler of our current state of interconnectedness. At the Guggenheim Museum, New York, she presented "Grey Area" (2008-09), a suite of six paintings commissioned by the Deutsche Bank and the Solomon R. Guggenheim Foundation, and exhibited last fall at the Deutsche Guggenheim, Berlin. These large swirling canvases, replete with architectural fragments, sweeping abstract lines of force, and staccato dots and dashes, suggest a world in which construction and destruction, whether caused by nature or human action, cannot be contained. Meanwhile, the 23-by-80-foot Mural commissioned by Goldman Sachs for the lobby of its new Manhattan headquarters was installed with considerably less fanfare, due to widespread outrage at the company. More colorful than the Deutsche Bank paintings, this work offers an overlay of bright modernist shapes blown about, like the stock exchange's once ubiquitous paper buy-and-sell orders, over fields of finely drawn architectural and diagrammatic lines.

Both projects attest to Mehretu's invention of a language of invisible forces. To create the Deutsche Bank paintings, she took advantage of a residency provided by the American Academy in Berlin for the first six months of 2007. The Goldman Sachs mural was completed during a later 14-month stint in Berlin in 2008-09. Her inspiration for the two projects was the remarkable transformations undergone by the city since the fall of the Wall in 1989, but her larger subject is urban centers seen as pulsating, ever-mutating organisms. The metamorphosis of Berlin is suggested in the "Grey Area" work Berliner Plätze through a subdued tracery of line drawings of 19th-century buildings sketched over a light gray backdrop and layered on top of each other until they meld into a composite grid of windows and roofs. Like fading memories, the grayed-out architectural filigree suggests the lingering nostalgia that has attended Berlin's post-Wall reconstruction, as audacious (and largely despised) postmodern buildings have sprung up alongside newly restored and even rebuilt pre-Nazi-era splendors. Other works deal with more violent transformations. Believer's Palace riffs on varieties of devastation, evoked by a cloud of billowing marks dispersed over faintly drawn details of three sites: San Francisco in the aftermath of the 1906 earthquake, the iconic facade remnant from the World Trade Center attacks and the

Alfred H. Barr, Jr.: Revised version of chart prepared for the jacket of the 1936 exhibition catalogue Cubism and Abstract Art, from the exhibition album "Cubism and Abstract Art." Museum of Modern Art, New York. Photographic Archive. MoMA Archives. © MoMA/SCALA/Art Resource, New York.

partially destroyed palace atop Saddam Hussein's bunker in Baghdad. Atlantic Wall, also a diffused composition, incorporates drawings based on the now crumbling coastal defenses built by the German military in France during WWII and beautifully eulogized by Paul Virillo in his poetic and widely read critical study Bunker Archeology.

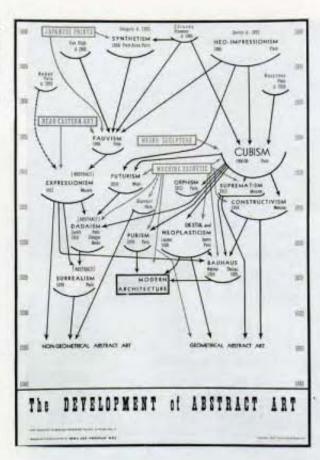
At Goldman Sachs, the subject is the history of finance capitalism. Mehretu told Calvin Tomkins in a recent New Yorker profile that sources for the work include maps (especially those showing trade routes), statistics on population shifts, images of buildings and charts representing the growth of cities.1 Her delicate markings blend into a fine web of lines in which one can make out various colonnades and architectural details derived from past and present market exchange buildings throughout the world. Scattered over this mesh are sweeping lines and a whirlwind of colorful shapes that allude to both the geometric and biomorphic varieties of modernist abstraction, their forms serving as Mehretu's stand-ins for the forces of modernity. A couple of shapes, to my eye, strongly recall Matisse's cutouts, while others suggest Richard Serra's Tilted Arc-a work that in the late 1980s became fatally enmeshed in larger

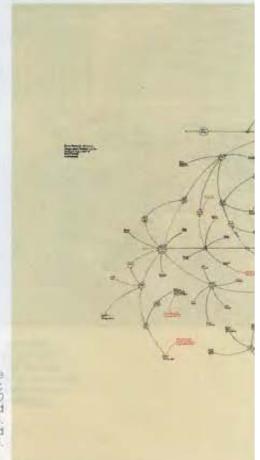
political currents, as it was commissioned and then dismantled by the General Services Administration of the federal government.

Mehretu has long combined the tropes of modernist abstraction-ranging from the floating triangles, arcing lines and explosive vectors of Constructivism to skeins of whiplash lines reminiscent of Pollock-with other forms borrowed from fields like engineering, urban planning, topography and architecture. More recent works include hints of the multiple perspectives and indeterminate spaces of traditional Chinese landscape painting. The colorful floating planes that dominate the Goldman Sachs mural, as well as the more subdued rectangles and triangles that punctuate the Deutsche Bank paintings, are recurring elements in her work, which frequently references Suprematist motifs, Minimalist forms and, by way of Boccioni, Futurist visions of the rise and dynamism of modern cities. At times, as in Dispersion (2002), a work that responds to the destruction of the World Trade Center, vectors describe a force exploding outward from a central void. In Empirical Construction, Istanbul (2002), flat geometric forms float like debris over an eruption of pencil marks based on fragmentary views of Istanbul's Old City. But while these works conjure energies unleashed by human actions, any suggestion of human forms is negligible, little more than specks tossed about by unseen forces.

THE NOTION THAT ART CAN MANIFEST otherwise invisible networks has a venerable history. During the heyday of religious art, paintings served to map out the intricacies of Christian theology, a process strikingly evident in works

Mark Lombardi: Banca Nazionale del Lavoro, Reagan, Bush, Thatcher, and the Arming of Iraq, 1979-90 (4th Version), 1998, graphite and colored pencil on paper, 50 by 120 inches. MoMA, New York, Courtesy Donald Lombardi and Pierogi.





MARK LOMBARDI REACHED BACK BEFORE MODERNISM TO 19TH-CENTURY HISTORY PAINTING AS A PRECEDENT FOR HIS INTRICATELY COMPOSED, HEAVILY RESEARCHED WORKS.

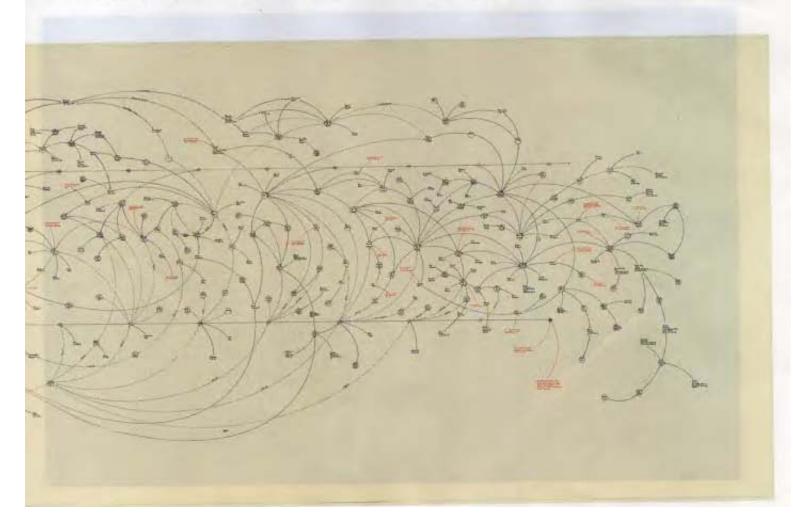
like the van Eycks' Ghent Altarpiece, which portrays God's redemptive program for man at work in specific events of human history. In our more secular era, artists and others often strive to chart the no less complex effects of science, technology and politics on the affairs of men. In the process, they reveal that modernity has its own idols, unseen energies and eschatological assumptions.

One seminal example is Alfred Barr's once-authoritative 1936 chart of the development of modernism, A complicated arrangement of the names of art movements connected by arrows and lines, it illustrates Barr's theory of stylistic birth and influence in a manner that bears some resemblance to scientific formulas and engineering diagrams. But latter-day attempts to expose hidden links among art, politics and economics owe more to Hans Haacke's Shapolsky et al. Manhattan Real Estate Holdings, a work censored by the Guggenheim Museum, New York, when scheduled to debut there in 1971. With extensive documentation, including photographs and charts, Haacke identified the properties held by one of the city's major real-estate families, most of them in slum neighborhoods. The exhibition, curated by Edward F. Fry, was to provide a look at Haacke's evolution from his early painting to his engagement with Conceptual art. However, with the installation already under way, Guggenheim director Thomas Messer became aware of Shapolsky and several other real-estate works. He

demanded that they be removed from the show, calling them "an alien substance that had entered the museum organism," The show was canceled and Fry lost his job.

It's typically assumed that Messer objected to Shapolsky because this piece exposed the unsavory financial dealings of a Guggenheim board member, but that was not the case, since no Shapolsky was then a trustee. Instead, his action suggests a resistance to the new and more confrontational kinds of content being opened up by the nascent Conceptual movement. One year earlier, the Museum of Modern Art's "Information" show had included a widely discussed piece by Haacke involving a poll of visitors on several political issues. But apparently what was permissible at MoMA was unacceptable at the Gugenheim, where Haacke's implicit critique in Shapolsky of the class that financially supports art museums pushed Messer beyond the limits of his tolerance.

In Shapolsky, Haacke presented his facts with an air of journalistic objectivity characteristic of his own earlier work with natural systems, and without the didactic conclusions that have tended to appear in the texts accompanying later works. While his pieces continue to employ documentary "evidence" in the form of photographs and objects in a superficially objective way, the texts reveal Haacke's increasing involvement in questions of ethics and morality, as he analyzes corporate and private art patronage in ways that make their social, political



FOR DAVID DIAO, MODERNIST ABSTRACTION IS A TOOL FOR CLARIFYING THE PERSONAL AND PROFESSIONAL TIES THAT BIND HIM TO THE WORLD.

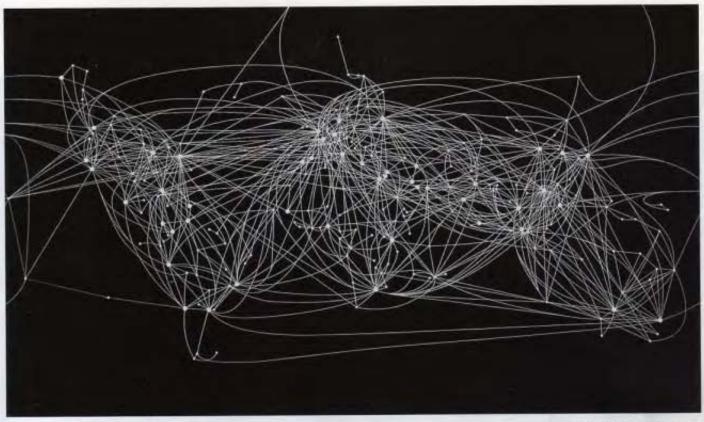
and economic dimensions clear. In this he stands apart from other mature artists portraying complex systems, including Mehretu, who notes that her work is more about trying to understand than suggesting paths of action or advocating a particular ideological position.³

While Haacke has continued to examine networks based on money and influence, Peter Halley has turned similar attention to the hidden meanings found in the formal language of modernism. In 1984, before he had begun to show his own geometrically based paintings, Halley issued a manifesto in Arts magazine about the demise of abstraction's humanist pretensions. He declared, "Where once geometry provided a sign of stability, order, and proportion, today it offers an array of shifting signifiers and images of confinement and deterrence." Soon thereafter, Halley began to employ Day-Glo paint and stucco to create arrangements of geometric shapes that he designated as cells, conduits and, later, prisons. He described the works as models for understanding the coercive nature of geometry in a postindustrial world. They are meant to reflect physical environments and modes of production, communication, commerce and surveillance regulated by dehumanizing systems. Interestingly, in his insistence on the inescapability of such linked networks, Halley seems to have anticipated the dominance of the Internet by 10 years.

Even in the 1980s, however, there was a disconnect between Halley's dour prognosis and the visual gratifications of his flamboyantly colorful works. Despite his argument that he was creating not paintings but "paintings," flat simulations of geometricized modern space that only looked like modernist abstractions, his arrangements of rectangles. striped "prison windows" and connecting black bars contain unmistakable echoes of the geometry of Piet Mondrian's late paintings and Robert Motherwell's The Little Spanish Prison, as well as works by Barnett Newman and Frank Stella. Recent shows at Mary Boone have revealed that Halley continues to mine this territory, but that with time, the critical edge has grown less distinct. There seems today as much continuity as rupture between the allegedly outdated pleasures of modernist abstraction and Halley's formally rigorous compositions and carefully calibrated palettes.

David Diao also takes a sociological approach to geometric abstraction, but in his hands, geometry is not so much coercive as instructive. He has spent some 40 years exploring his relationship to the history of abstraction through modernist-looking paintings that incorporate diagrams,





Langlands & Bell: Air Routes of the World (Night), 2001, screenprint, 33 by 561/2 inches. Courtesy Alan Cristea Gallery, London.

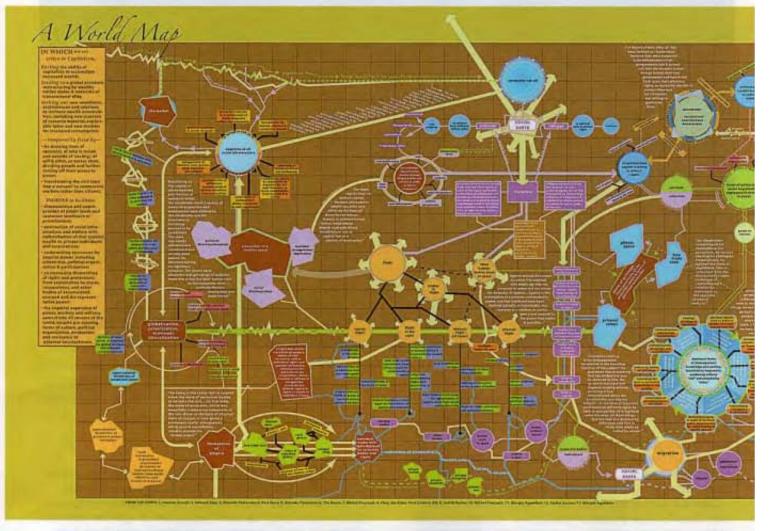
plans, texts and other forms of graphic presentation. He takes a tongue-in-cheek approach to the conceptualism that reigned during his early years as an artist, applying a faux sociologist mentality to the vagaries of art history and his own art career. For Diao, formalist abstraction offers an organizational principle that enables him to document the messy intersections of market, artwork and fame.

Diao has edited the Alfred Barr diagram, created paintings based on the shapes in the familiar 1915 photograph of Malevich's first exhibition, and produced compositions that feature "logos" naming artists and movements associated with the historical avant-garde. Struck by the similarity between his own desultory production record and that of his hero Barnett Newman, he created a painting somewhat in the mode of Newman's monochromatic works, but with vinyl self-adhesive letters and numbers placed in a ziplike column that charts Newman's sporadic yearly output. This led to another painting, Sales (1992), in which Diao records the waxing and waning of his own commercial success, with a set of larger and smaller red dots chronicling his sales, or lack thereof, year by year. In That Close! (2002), Diao took on the creation of art historical lineages. The painting is a schematic map of the Green River Cemetery where Jackson Pollock is buried, with concentric circles revealing the proximity of Pollock's remains to those of art figures like Stuart Davis, Frank O'Hara, Lee Krasner, Elaine de Kooning and

Henry Geldzahler, all of whom died after him. Several more recent works deal with Diao's Chinese heritage, attempting to conceptually reconstruct his grandfather's destroyed estate—from which the artist was exiled at age five when he left China in 1948—by drawing on recollections from aunts and uncles. The resultant paintings include various floor plans, all derived from descriptions of the same structure, that diverge from each other to surprising degrees.

For Halley, the language of modernist abstraction provides a way to visualize societal confinement and constraint. For Diag, it is a tool for clarifying the personal and professional ties that bind him to the world. By comparison, the late artist Mark Lombardi, according to art historian Robert Hobbs, reached back before modernism to the discursive impulse behind 19th-century history painting as a precedent for his intricately composed, heavily researched works.5 Between 1994 and 2000, Lombardi created delicate schematic drawings composed of solid and broken lines, circles and squiggles that enmesh the names of organizations and individuals in the bizarre weavings of global capital. The connections, based on Lombardi's extensive archive of news clippings, court proceedings and books about corporate and political malfeasance, are often as bizarre as they are nefarious. In one work, the Vatican Bank is linked to the Mafia and the illegal transport of firearms. In another, one can trace connections showing how the top levels of the administrations of Ronald Reagan, the elder George Bush and Margaret

Opposite, David Diao: That Close!, 2002, acrylic on canvas, 78 by 115 inches. Courtesy Postmasters, New York.



Thatcher were involved with Italy's largest bank in arming Iraq in the 1980s. It would be easy to read a political motive into the exposure of such networks, but in fact Lombardi resolutely refrained from taking a position on the relationships he uncovered, believing instead that you can "give people info and they'll make the right decision."

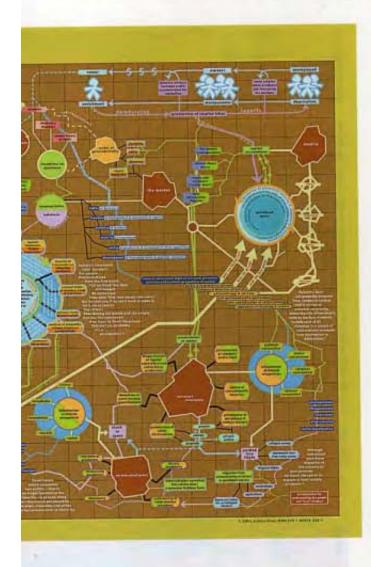
Lombardi, who committed suicide in 2000 (creating grist for conspiracy theorists), composed his flowcharts from publicly available data. This did not prevent an FBI agent from coming to the Whitney Museum in October 2001 to examine a Lombardi drawing that includes information on Al-Qaeda's financial network. (A similar drama played out recently, when Washington Post reporters Dana Priest and William M. Arkin ferreted out the vast number of government agencies and private contractors dealing with homeland security and counterterrorism since 9/11. Like Lombardi, these writers

used nonclassified materials to describe a system that even the CIA found too complex to track.")

British art team Ben Langlands and Nikki Bell also mine publicly available information, creating charts, installations, videos and architectural ground plans, as well as models, monochrome reliefs and even a full-scale steel-and-glass bridge recently completed at Paddington Basin in London. Over the last 30 years, much of their output has focused on the psychologically subtle, frequently coercive underpinnings of contemporary architecture and design. Other works feature matrices composed of the acronyms of global entities, including terrorist groups, NGOs, Internet domains and international airports. The artists sometimes portray air routes as a kind of celestial architecture, reflecting the way people and cargo are transported around the world along predetermined routes.

These Langlands & Bell pieces bear an eerie resemblance to both Lombardi's intricate drawings and Mehretu's "Grey Area" paintings. Presenting maps of the air patterns of Europe, Britain and the world, the silkscreened images appear in two different color formats. One offers a filigree of

ASHLEY HUNT'S WORLD IS ONE WHERE VIEWERS CAN, THEORETICALLY AT LEAST, DETERMINE CAUSES AND CONSEQUENCES OF LARGE ECONOMIC CHANGES.



white lines against a black ground and the other reverses the palette. Taken together, the air routes resemble a diaphanous cloud punctuated by dots (which represent airline hubs). Bringing to mind everything from spiderwebs to star charts, these works are a reminder that geography feels largely dematerialized to air travelers and computer users. They also highlight the vulnerability of intricate, well-established systems. As Langlands told an interviewer, "What was so extraordinary about the September 11 attack was that the terrorists didn't have to ship an aircraft carrier to New York to do it, they just used a civil airliner. . . . They just made use of a network that was already there.*

YOUNGER ARTISTS OFTEN DEPICT invisible systems in an even more literal and explicit fashion. In PS1's "Greater New York" group survey last summer, the subshow "An Atlas of Radical Cartography," organized by Lize Mogel and Alexis Bhagat, presented works mapping out systems of illegal immigration, urban surveillance, CIA air operation, New York City garbage disposal and other activi-

ties. The section's standout work was a large digital print by Ashley Hunt titled A World Map: in which we see . . . (2005). Hunt, who for several years has been producing the Corrections Documentary Project, an evolving multi-artist exhibition and website that charts the interconnections of the "prison industrial complex," here turns his attention to the crises engendered by global capitalism. This large work resembles a cross between a colorful board game and a blackboard bearing the residue of a graduate seminar. Footnoted texts by the likes of Hannah Arendt, Karl Marx, Michel Foucault and Pliny the Elder are interspersed within a complicated arrangement of arrows, phrases and word lists, along with text bubbles containing terms like "empire," "enclosure movements" and "deindustrialization." Unlike a board game, however, the piece seems to have no entry or departure points. Instead, one circles around endlessly in a maze of proliferating concepts and citations. A key at the side explains the otherwise bewildering point of it all, which is to delineate how international corporate capitalism has restructured global economic networks into a vehicle for its own perpetuation.

Though he shares Mehretu's general source of inspiration, Hunt is far more didactic in his intentions. His world, unlike hers, is one where viewers can, theoretically at least, determine causes and consequences of large economic changes. However, as he pointed out in an interview, the comfort offered by maps like his is illusory, His intentionally ambiguous chart was designed, he says, to "produce the desire to talk more, to keep looking, to begin researching and acting, and ultimately get off the map."

In adapting graphs, charts and diagrams borrowed from sociology, science and mathematics, works like A World Map acknowledge the pervasiveness—in every field of endeavor—of this mode of presenting information. (A diagram startlingly similar to the work of Hunt and Lombardi illustrated an article in the New York Times last spring on the U.S. military's over-reliance on PowerPoint presentations. The piece quotes General Stanley McChrystal as commenting wryly, "When we understand that slide, we'll have won the war." (10) Mehretu's paintings differ from such sources, as from the other artworks discussed above, in that they eschew the aspirations to clarity typically associated with graphic schemata. Instead, the artist creates a field of multiple interactions that echo the multivalent experience of postmodernity.

Moreover, Mehretu's engagement with art history serves as a reminder that, in the hands of its originators, modernist abstraction, no less than conventional diagrams and charts, offered a way to visualize an otherwise elusive order. Malevich's obdurate squares, Mondrian's arrangements of horizontal and vertical lines and even Kandinsky's dynamic lines and patches of floating color were efforts to wrest the enduring features of reality from the deceptive chaos of the visible world. Unmoored as they are amid the flurry of other marks, diagrams and technical symbols, Mehretu's modernist tropes no longer carry the authority invested in them by the original abstractionists. However, she is not content to let them atrophy into mere decorative motifs. Instead, she enlists them in a manner that is respectful yet, at the same time, skeptical of modernist abstraction's utopian claims, underscoring the ways that such art can still pro-

MEHRETU'S MODERNIST TROPES NO LONGER CARRY THEIR ORIGINAL AUTHORITY, BUT SHE UNDERSCORES THE WAYS THEY CAN STILL PROVIDE FRAGMENTS OF MEANING.

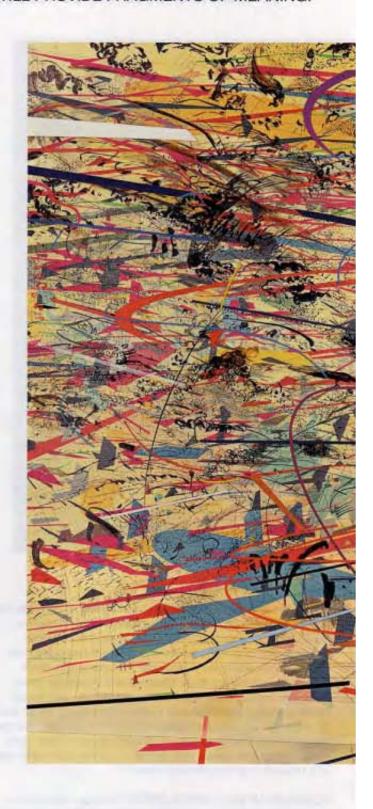
vide fragments of meaning. Her work resembles an arbitrary sign system—not unlike Google maps, urban planning grids and architectural blueprints—whose vocabulary is invented rather than, as was believed by early abstractionists, found in the world (or a transcendent domain beyond it) and somehow connected to the inner structures of reality.

In a recent interview, Mehretu remarked, "How can abstraction really articulate something that is happening? When you make a picture of a condition, how can it make sense of that condition?"11 What makes her efforts to answer that question so intriguing is the changing nature of the condition she is examining. In the 1980s, theorists and artists like Peter Halley often maintained that diagrammatic art speaks to the managerial class, that it offers a way for artists to communicate in a shared schematic language with the puppet masters manipulating our social and economic fates. Recent events suggest that even the controllers are subject to forces beyond their control. Mehretu's paintings reflect a world where the governing principle is perpetual uncertainty. As systems pile on top of other systems and then suddenly disintegrate, there seems to be no definitive authority or final goal. Instead, in the words of Marx, "All that is solid melts into air." Given this state of affairs, Mehretu can be said, after all, to have put a contemporary spin on the old idea that abstraction translates the very essence of Being. For her, such art expresses not some ultimate truth or underlying order but the more terrifying thought that the only constant pattern is continual chaos. o

1 Calvin Tomkins, "Big Art. Big Money," New Yorker, Mar. 29, 2010, p. 64. 2 Quoted in Hans Haacke, Framing and Being Framed. 7 Works 1970-1975, Hallfax, Press of the Nova Scotia College of Art and Design, 1975, p. 138. 3 "Julie Mehretu," Interview by Lawrence Chua, BOMB 91, Spring 2005; at bombsite.com. 4 Peter Halley, "The Crises in Geometry," Arts. June 1984; reprinted at peterhalley.com. 5 Robert Hobbs, Mark Lombardi: Global Networks, New York, Independent Curators International, 2003, p. 34. 6 Quoted in Hobbs. p. 25. 7 Dana Priest and William M. Arkin, Top Secret America: A Hidden World, Growing Beyond Control," Washington Post, July 19, 2010; at washingtonpost.com. 8 Quoted in Catherine Milner, "Conceptual Blood and Guts," Sunday Telegraph, Apr. 24, 2002, p. 8. 9 "Representations of the Erased," Ashley Hunt interviewed by Natascha Sadr Haghighian, No Matter How Bright the Light, the Crossing Occurs at Night, Berlin, Kunst-Werke, 2006. p. 8; reprinted at correctionsproject.com/art/ indexWriting html. 10 Elisabeth Bumiller, "We Have Met the Enemy and He Is PowerPoint," New York Times, Apr. 26, 2010, p. 11 Interview with Lawrence Chua, BOMB.

Julie Mehretu's "Grey Area" paintings were on view at the Guggenheim Museum, New York, May 14-Oct. 6.

ELEANOR HEARTNEY is the author of Art and Today (Phaidon, 2008).





Mehretu: Dispersion, 2002, ink and acrylic on carives, 90 by 144 Inches. Courtesy Marian Goodman Gallery, New York.