



REVIEW: VORTEX AT DENISE BIBRO FINE ART

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Recent Animations and Works on Paper by Carter Hodgkin thru February 23, 2013

by Taney Roniger



Installation view of *Vortex* by Carter Hodgekin at Denise Bibro Fine Art.

Generative collisions loom large in the new series of works by Carter Hodgkin, currently on view at Denise Bibro Fine Art. Inspired by the field of particle physics, which studies the notoriously unstable world of the smallest constituents of

matter, but evoking with equal force the cosmic expanse of galactic space, the works presented here are fraught with tensions between disparate (and often dissonant) associations whose interactions give rise to unexpected configurations of meaning and aesthetic emotion. For an artist who has forged a career at the volatile intersection of art, science, and technology, colliding forces is a fitting theme.

For almost a decade, the model that has informed Hodgkin's work is a species of image associated with the "scattering experiments" conducted by physicists inside giant particle accelerators, in which charged subatomic particles are forced to collide at enormous velocities. The resulting fallout, whose scatter tracks are rendered visible with powerful imaging technologies, provides scientists with crucial insight into the strange world of quarks, leptons, and bosons, where the familiar laws of nature no longer apply, and where uncertainty, paradox, and ambiguity prevail. Among a host of other paradoxes revealed by these experiments, we are told that phenomena in the quantum realm that would appear mutually canceling can co-exist as complementary pairs, each rendering the other's partial truth whole. Light is both wave and particle. The universe is both continuous and discrete.

Attracted no doubt by the strange beauty of these experiments and the metaphorical richness of all they portend (the artist has spoken of her association of the particles' traces with the ideas of Paul Virilio, a leading theorist of technology, speed, and power in contemporary life), Hodgkin has used the iconic image of colliding particles as a point of departure since 2004. Having spent the previous two decades exploring the ways in which scientific imagery allows us to visualize the invisible with its use of increasingly sophisticated technologies, the artist's practice took a critical step forward in that year with her discovery of a computer programming language that would allow her to generate images of her own by way of simulated particle collisions. The works in this show result from her ongoing engagement with these simulated collisions.



Installation view of *Vortex* by Carter Hodgekin at Denise Bibro Fine Art.

Entering the gallery, we are met first by two dark screens on which two separate four-minute animations are looped. From within a deep, black void, bursts of countless vibrantly colored particles of light erupt and dissipate across the screen, curving into tendril-like tracks that cascade outward at varying speeds. Sometimes densely clustered, sometimes so faint and delicate as to be barely visible against the blackness of the void, the exploding and dissolving vortices, ringlets, and circular scatter patterns enact a drama that is as mysterious as it is beautiful. Immersed in a dense ambiguity that is rendered more acute by the works' silence (the animations' explosions emit no sound), one senses one is bearing witness to some momentous event that has heretofore gone unseen. Is it the birth of stars and galaxies that we are beholding, or are we peering into the vast inner space that surrounds the nucleus of an atom? Or, further still, are we being shown another kind of inner space, one that is at once more familiar and more incomprehensible than any other — namely, that of our own consciousness?

Hodgkin's animations establish a tone of hushed sublimity that both slows and reorients the viewer's mind, and this move toward the contemplative prepares one well for the rest of the show. What follows is a suite of paintings on paper that range in scale from small (12" squares) to medium (the largest piece is 44" x 44"),

all rendered in gouache, watercolor, and inkjet. Against solid, untouched grounds that are alternately jet black or creamy white, the cascading forms and events that inhabit the animations here hang suspended in action, charged with the potential energy of excess poised for release. In these works, the individual particles are tiny dabs of semi-translucent paint whose subtle irregularities tell us of their origin in the artist's hand.

With a rich and varied palette that ranges from blues, violets, scarlets and earthy greens to bright yellow and ultra-saturated pomegranate, the painted forms acquire a physical presence that is wholly absent in the animations, and this emphatic materiality ushers in a host of new associations. One thinks here not of entities imperceptible to our unaided senses, but of botanical growth (i.e., the centrifugal movement of a budding flower and the centripetal shrinking occasioned by its death), geologic events such as erupting volcanoes, and manmade explosions such as pyrotechnics. While rapid flux and high energy are evoked in every piece, the work has a formal elegance that serves as a kind of nuclear glue, holding everything together in dynamic equipoise against the explosive forces of instability, speed, and scatter. The emotional evocations are equally complex; the sense of turbulence, tumult, and disorientation evinced by the swirling forms is interfused with a sense of warmth or human presence that issues from the works' materiality.



For some artists, the process by which the work is created is, if not entirely incidental, of secondary concern; it is considered foremost a means by which a desired end is to be achieved. Such is not the case with Hodgkin, as it seems that embedded within her process are metaphors deeply resonant with – and ultimately inseparable from – the work's emotional and conceptual import. Hodgkin's process begins with the digital computer, which she programs to create her animated simulations of particle collisions. The artist codes the program such that by altering various parameters (e.g., speed, gravity, curvature, color), the behavior of four particles that constitute her basic lexicon is affected in unpredictable ways, causing a chain of visual events that plays itself out on the computer screen. Each simulation is unique, each outcome wholly unforeseen. Simultaneously playing creator, instigator and observer, Hodgkin watches the drama unfold until, whenever compelled, she freezes the motion to capture a still image. The stills thus extracted form the basis for all the artist's paintings and works on paper. After subjecting them to further alteration on the computer, Hodgkin digitally imprints the compositions onto whatever substrate she is using, and then proceeds to paint, entirely by hand, onto the surface. Mark by mark, vortex by vortex, layer by layer, the paintings gradually coalesce to form the optically dazzling arrays that are her works.

In this protracted back-and-forth between the artist and her instruments, opposing forces abound: creation versus destruction, order versus randomness, human agency versus machine cognition, organic versus mechanical — with each set of oppositions generating not mutual nullification but new vortices of meaning from their dynamic tensions. But perhaps most significant of all is the final phase of Hodgkin's process. In another artist's hands, the exquisitely beautiful images created by the computer would be the logical terminus of the work, the point beyond which anything else would seem superfluous. But for Hodgkin, having both created a world and then subjected it to explosive disintegration, order must be painstakingly re-established, and now solely by means of her own body and its

haptic engagement with matter. In light of the artist's oeuvre, it is difficult to see this as anything but a profound act that bespeaks many of the longings and anxieties of the digital age.

With interest in the art/science nexus on the rise among many ambitious and forward-thinking artists, some fundamental questions about the nature of these disparate domains and the ways in which each might enrich the other's knowledge are becoming more insistent. While artists readily turn to science for a kind of knowledge not accessible to the senses or the intuitive faculties, for the inspiring novelty of its increasingly sophisticated technologies, and for its abundant wealth of imagery, questions surrounding how scientific knowledge might be enriched by art remain much less clear. Most current thinking on the issue focuses on visualization – on its role in the scientific process and how artists' visual intelligence might augment scientific research. What Hodgkin's work reminds us is that there is a dimension to art even more fundamental than visualization, and it is one that science alone cannot touch. This is the realm of human values, of metaphor and meaning. With its poetry, Hodgkin's work folds science back into the human matrix in which our lives are thoroughly rooted, endowing its subject matter with a richness and depth that are the true hallmarks of aesthetic cognition.

If science thinks it has no use for aesthetic cognition thus defined, it would do well to recall the words of Niels Bohr, one of the pioneers of quantum mechanics: "When it comes to atoms, language can be used only as in poetry. The poet too is not nearly so concerned with describing facts as with creating images and establishing mental connections...Quantum theory provides us with a striking illustration of the fact that we can fully understand a connection though we can only speak of it in images and parables." When the physical sciences can no longer traffic in certainties and exactitude but must move toward truth by other means, the intersection of art, science, and technology becomes fertile ground indeed. Carter Hodgkin's established presence there is a testament to the epistemological possibilities that lie waiting.



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2 Responses to Review: Vortex at Denise Bibro Fine Art



Christopher Arabadjis says:

February 14, 2013 at 8:16 am

You bring up some very interesting points about the connection between science and art. I particularly like the implication that for science to go further in its description of "truth,", it will need the assistance of art. I have suspected this for a few years. In my own work I have dreamed that one day my images will inspire scientists to create new descriptions of physical (?) reality. We probably won't use that term for much longer; virtual reality is just as "real." What I like so much about Carter hodgkin's work is that she is rigorous while still maintaining an overall sense of aesthetics. She does not let go of traditional views of composition, but does introduce a whole new process if generation and that's very exciting. I'd be very interested to read anything more youve written about the art-science boundary.

Reply



Steve Miller says:

February 14, 2013 at 8:47 am

Great review for a work worthy of the discussion. Carter is an under recognized pioneer in what was once called, years ago, "the new technologies." This is now a fact of life that no one questions. The implications of her work slyly reaches the depths of the universe.

Reply