Touting "a new model for museum alliances," the Massachusetts Museum of Contemporary Art, or MASS MoCA—the cutting-edge contemporary-art institution in the Berkshires—recently opened a 10,000-square-foot pavilion on its sprawling campus for the long-term display of three monumental, challenging works by the German artist Anselm Kiefer. The result is an intellectually meaty, emotionally powerful and visually riveting experience.

All the art comes from the 5,000-work collection of megacollector Andrew Hall, a famously astute commodities trader in oil and natural gas, and his wife, Christine. The Halls also provided the pavilion's design plans and paid some $2 million to $3 million to realize the project, which included renovating and expanding an unused water cistern on MASS MoCA's repurposed industrial site and making improvements to the adjacent grounds. They will also assume the pavilion's annual operating costs for the duration of the renewable 15-year loan agreement.

This ambitious collaboration of a collecting couple, an artist and museum director Joseph Thompson originated in a land-use dispute: The Halls had installed a provocative piece of
lawn sculpture at their Southport, Conn., house, in a historic district. It was one of the pieces now in North Adams: "Étroits sont les Vaisseaux" ("Narrow Are the Vessels"), an 82-foot-long, wavelike jumble of cast-concrete layers, with exposed, rusty rebar spikes jutting from its crumbling edges.

Lacking appreciation for this bulky hulk, the local authorities won a protracted court battle to have it removed. It was later at MASS MoCA in an arresting exhibition of Hall-owned Kiefers, which occasioned the conversation between the collectors and Mr. Thompson to create a Hall hall.

All three works communicate a sense of desolation and eroticism, spiked with dark humor. "Les Femmes de la Révolution" ("The Women of the Revolution"), 1992/2013, is a slightly off-kilter lineup of two rows of ghostly dark gray beds, covered by rumpled, mottled bed sheets that are fashioned from lead. A large-scale lead panel at the far end of the piece displays a blown-up photograph of the young Mr. Kiefer walking away down an endless stream, continuing the viewer's own journey.

Affixed to the wall behind each bed are names of women who figured in the history of the French Revolution. Each bed is indented in the center, as if from the impression of a woman's body—a reflection of Mr. Kiefer's preoccupations with the intersection of political and personal histories. Various fluids and detritus—stones, leaves, wires—are deposited in each bed's cavity. The effect is that of long-forgotten graves in a neglected cemetery.

The third work, "Velimir Chlebnikov" (2004), immerses viewers in 30 forbidding seascapes, installed on two facing walls inside a 1,500-square-foot steel pavilion within the Kiefer installation. These dark, thickly painted canvases are collaged with various objects, including dried sunflower stalks, gloves and Mr. Kiefer's three-dimensional models of ghostly battleships that seem hopelessly overmatched by the roiling waters.

Like the other two works in the Kiefer pavilion, this maritime maelstrom evokes not only warfare but also, incongruously, lovemaking. The names of lovers from Greek myth are scrawled on certain paintings. The recurring spurts of white paint on the seascapes have been called "semen-like."

The concrete wreckage of "Étroits" was, surprisingly, inspired by a love poem. When I arrived at the installation, the artist, with one arm in a sling, was wielding a black crayon while perched high above "Étroits" on a mechanical lift, writing an excerpt from the French poem by Saint-John Perse from which the sculpture gets its title. In English translation, the excerpt reads: "One same wave throughout the world, one wave since Troy rolls its haunch towards us"—again, a conflation of love (Helen of Troy) and war (Trojan). While the concrete ruin
suggests the bombed rubble of Mr. Kiefer's postwar Germany, its wavy surfaces, which roll toward the viewer, are smooth as a lover's "haunch."

Like "Étroits," the other two Kiefer works on view were inspired by the artist's eclectic readings. "Les Femmes de la Révolution" draws upon an identically titled 1854 study. "Velimir Chlebnikov" derives from an essay in which the eponymous Russian poet, Futurist and mathematical theorist propounded a "new doctrine of war" based on his calculations (some of which are scrawled on the paintings) that "naval battles recur every 317 years."

Now living in Paris, Mr. Kiefer didn't set eyes on the North Adams installation until a few hours before the press preview. His numerous last-minute interventions included brushing to the floor some loose gravel from "Étroits," whereupon he pointed to this untidy miniature avalanche and admonished, "No housekeeping!" He likes his works to crumble, weather and deteriorate, all of which stops when they are acquired by preservation-minded collectors and museums.

The artist also instigated some last-minute rearrangements of a small, revelatory companion exhibition at the nearby Williams College Museum of Art. On view through Dec. 22, that show consists of books (containing drawings, woodcuts and photographs) and paintings (including atypically lyrical watercolors) on loan from the Hall Collection and the Kiefer Studio. From early in Mr. Kiefer's career, they already addressed the themes of love, war, myth and Germany's Nazi past that remain his touchstones.

Because the new MASS MoCA pavilion lacks climate control (except for the paintings), the Kiefer installation will close on Nov. 15, reopening in April. Subject to MASS MoCA's approval, Mr. Hall hopes to install one or two monumental non-Kiefers on the pavilion's grounds next summer—Franz West's "Les Pommes d'Adam" (2007) and Carl Andre's "Cascade" (1984). He says that he may eventually rotate art from the pavilion, substituting other pieces from his holdings. "But realistically," the 62-year-old collector told me, "the 80-ton wave ["Étroits"] and the 'Chlebnikov' pavilion are not going anywhere in my lifetime."

This marks the second time that MASS MoCA has given over one of its unused buildings to a long-term, in-depth display of works by a single artist. The first was a retrospective from multiple lenders of some 105 vibrantly colorful, large-scale wall drawings by Sol LeWitt, which opened in 2008, to remain for at least 25 years.

Mr. Thompson has no misgivings about essentially relinquishing a portion of MASS MoCA's property and curatorial control to a private collector, who could theoretically capitalize on the imprimatur of the museum if he decides to sell works from his collection to benefit himself or his Hall Art Foundation. (Mr. Hall told me that's "extremely unlikely.")
"I like the idea of having multiple points of view, each unfolding in its own space," Mr. Thompson said. He hopes to "partner with other collectors" to develop more of the unused industrial buildings on campus.

"If you can get all the benefits of having great core collections here, and none of the liabilities," he said with a smile, "that's a beautiful thing."