NORTH ADAMS, Mass. — The master plan for MASS MoCA in 1986 was a wildly ambitious dream: to simultaneously rehabilitate all 28 buildings of a shuttered 19th-century factory in this depressed Berkshire County town for the long-term display of monumental art installations.

Instead, economic realities intervened. “We’ve had organic growth, inhabiting the space bit by bit over time,” said Joseph Thompson, the founding director of the Massachusetts Museum of Contemporary Art, who has just completed the museum’s third phase of expansion on the 16-acre campus — after some three decades.

This weekend, the dramatic prow-shaped Building 6, at the confluence of the north and south branches of the Hoosic River, opens to the public with expansive galleries devoted to works by James Turrell; Jenny Holzer; Laurie Anderson; Louise Bourgeois; Robert Rauschenberg; and Gunnar Schonbeck, a musician and teacher at Bennington College who made instruments from everyday objects.

“These are unique opportunities tailored for each artist’s needs and desires,” said Mr. Turrell, 74. “It makes a great program to have younger artists put in this kind of context,” he added, referring to the history of rotating exhibitions of
visual artists such as Tim Hawkinson, Spencer Finch and, currently, Nick Cave, along with performing arts events. The museum now draws about 165,000 visitors annually.

Recently, Mr. Thompson led me along the vast new route, wending a giant figure-eight around two courtyards, with views of the river from a ribbon of windows lining the perimeter of the lofty industrial space.

Mr. Thompson estimates the cost per square foot at 5 percent of the price of recent museum projects in New York and San Francisco. The budget for the expansion — led by Bruner/Cott & Associates — came to $56.4 million for design, construction, art installation and an increase to the endowment.

The luxury of space has given this noncollecting institution the freedom to extend multidecade commitments to a slate of artists or their estates. Mr. Turrell, who began discussions with MASS MoCA in the late 1980s, has been able to build a museum within a museum of his ethereal light installations; it is to remain on view for 25 years. For Ms. Holzer, who has a home nearby in Hoosick Falls, N.Y., a dedicated space will allow her to create changing displays of her politically charged text-based works over the next 15 years.

Laurie Anderson, who has been performing her story-based multimedia pieces here since MASS MoCA opened, has built a production studio and archive alongside two galleries for rotating exhibitions of work, in another 15-year collaboration.

“It’s high-tech to no-tech,” Mr. Thompson said of Ms. Anderson’s displays. “I’ve always been interested in the idea of how you make a museum for artists whose work is performative.”

Building 6 is also now home to several surreal marble sculptures from the family of Louise Bourgeois, including a 15-ton carving she kept in her studio.

The Rauschenberg Foundation, which runs a residency program at the artist’s former home in Captiva Island, Fla., doesn’t have public exhibition space there. Building 6 will be a long-term space for the rotation of works by Rauschenberg — currently a labyrinth of silk-screened plexiglass and mirrored panels — and for artists who have completed the residency, including Dawn DeDeaux and Lonnie Holley.

Gunnar Schonbeck “believed every human being was a musician, and every inanimate object could potentially be a musical instrument,” Mr. Thompson said. More than 300 of Schonbeck’s inventive handmade instruments — a nine-foot banjo, a drum made from airplane fuselage, a chime rack from castoff objects — now reside in Building 6 and can be played by visitors.

Michael Govan worked on the museum’s original plan with Mr. Thompson, his Williams College roommate, and their mentor Thomas Krens, before moving to New York as Mr. Krens’s deputy at the Guggenheim Museum in 1988. “It’s exciting to see the complex finally operating as a village of cultural spaces. “MASS MoCA’s been conceived to have a foot both locally and globally,” added Mr. Govan, now the director of the Los Angeles County Museum of Art. “Joe’s taking risks in the juxtapositions.”

James Turrell: Light and Space Movement Pioneer

It took three museum exhibitions in 2013 — in Los Angeles, Houston and New York — to give Mr. Turrell as full a retrospective as he has here: nine immersive light installations that alter perception. A glowing cube in the corner of one room dematerializes as you approach. Walk toward a Rothko-esque plane of molten color in the next room, and
you make the mind-bending discovery that it’s curved and you can stick your hand through the illuminated shallow space. In his “Dark Space” environment, it takes a good 12 minutes before your eyes fully adapt to his subtle light show.

Jenny Holzer: The Impact Of War

Known since the late 1970s for her elliptical texts carved into stone benches, emblazoned on billboards and projected on buildings, Ms. Holzer focuses here on work about the implications of war. Some 200 silk-screened paintings from the last decade, reproducing at large scale declassified and redacted American documents relating to military operations in Iraq and Afghanistan, hang salon-style across two cavernous galleries. Pulsing LED installations, streaming with texts by the poet Anna Swir about her experiences as a resistance fighter in the 1939 Siege of Warsaw, cast a lurid purplish-blue glow on the paintings, lit just so they’re legible. “I was so concerned about the invasion,” Ms. Holzer said, “and wanted to understand why we were going in, from every point of view — the politicians, officers, enlisted men and eventually detainees.” Every night for the next month, her projections of refugee poems will illuminate the north facade of MASS MoCA. Ms. Holzer has also placed 21 of her stone benches carved with “truisms” (such as “Your oldest fears are your worst ones”) in nooks around the buildings.

“Until now, we haven’t been encouraging of people exploring the whole outdoor 16-acre campus,” Mr. Thompson said.

Laurie Anderson: Filling Your Head With Living Stories

As a storyteller and performer, Ms. Anderson imagined a museum of her work might resemble a radio broadcasting station. That inspired the design of her glass-walled gallery, now to be her home away from her New York home. When she’s not in residency, you can listen to her recordings with headphones. Another gallery features her expressionistic charcoal drawings of her dog Lolabelle and visions of the Tibetan afterlife.

In a black-box gallery, white graffiti and drawings are scrawled across every plane of the room. There you can put on a virtual reality headset and lift off, tunneling through unfolding rooms with walls of her words. Drawings come to life and may turn into galaxies as Ms. Anderson’s voice fills your head with stories. Virtual reality “does what I’ve always wanted to do as an artist from the time I’ve started, which is a kind of disembodiment,” Ms. Anderson said.

A second virtual experience puts you onto an airplane that peacefully disintegrates midair. As you drift through the heavens, reach for the floating Buddha or the copy of “Crime and Punishment” to trigger more storytelling. “It’s magic,” Ms. Anderson said. “You get to feel completely free.”

- Hilarie M. Sheets