On a spring afternoon with his first major retrospective in New York looming, the artist Jeff Koons, nattily dressed in navy blue from head to toe, calmly boarded a helicopter heading for a foundry in upstate New York. His mission was to check up on his “Play-Doh,” a monumental sculpture depicting the squishy material ubiquitous in American playrooms.

Back in 1994, Mr. Koons set out to replicate a colorful mound of Play-Doh configured by his son, Ludwig. It was to have been fashioned from polyethylene, and after seeing the model, a Los Angeles collector named Bill Bell agreed to buy “Play-Doh” on the spot.

“But as I started putting more and more detail in the piece, I realized I needed to make it out of aluminum to get a more hyper-realistic surface,” Mr. Koons said, as if to justify the sculpture’s long gestation.

Twenty years later, “Play-Doh” is still in 27 pieces, and Mr. Bell has never seen it finished. Neither has the Whitney Museum of American Art, where the 10-foot-tall work is to be a centerpiece of its coming Koons survey, one that will consume more space than the museum has ever devoted to a single artist, including Mark Rothko, Edward Hopper or Georgia O’Keeffe.

“It’s never easy with Jeff,” said Mr. Bell, who owns 10 of his sculptures and is keenly familiar with the artist’s tardy ways.
The Whitney has had its share of challenging installations. Crews have had to handle toxic molten lead and contend with hanging thousands of pounds of mattresses from the ceiling and smearing them with Entenmann’s cinnamon cake.

But nothing comes close to the test the museum will face with the opening of “Jeff Koons: A Retrospective,” on June 27.

How, for instance, are the art handlers planning to move his 15,000-pound granite “Gorilla” into an elevator only equipped to safely handle 14,000 pounds? (Specialists from the Otis Elevator Company will have to raise the elevator with the sculpture inside it, using chain hoists.)

To get both “Gorilla” and “Play-Doh” inside the museum, the building’s front doors and transom must be removed — a first for the Whitney.

And then there are the supersize balloon dog of polished steel; the golden ceramic Michael Jackson with his pet chimpanzee, Bubbles; the black granite Popeye; basketballs floating in tanks of water; vacuum cleaners encased in vitrines, and the giant canvases painted by scores of assistants depicting figures from antiquity and pop culture.

“It’s the perfect storm of difficulties,” said Scott Rothkopf, the Whitney’s associate director of programs, who has spent four years organizing the exhibition and accompanied Mr. Koons last month on his helicopter journey. “There are the sheer physical demands of the objects themselves, their high values and the fragile materials, to say nothing of the cliffhanger of waiting for works that have been in production for years.”

Mr. Rothkopf, 37, who has written extensively about Mr. Koons since he was a student at Harvard, has a lot riding on this show. If it fills nearly the entire museum, including the lobby and sculpture court, with some 120 objects, it is also the Whitney’s grand finale before moving to its new home in the meatpacking district in Manhattan next year.

While it would have been far easier to wait and hold the exhibition in the Whitney’s new Renzo Piano-designed building, which will be equipped with commodious loading docks, elevators able to handle unusually heavy artworks and column-free galleries, Mr. Koons explained that he likes seeing his work set against “the patina of the Breuer building,” adding, “There is a brute force reality about the Whitney spaces.”

At 59, Mr. Koons may be one of the most famous living artists around — and the most expensive at auction, a distinction he earned last year when “Balloon Dog (Orange)” sold for $58.4 million. But this will be the first time American audiences will see the sweep of his more than three-decade career in one gulp, 1978 to the present.

“These works resonate on so many levels, for the younger artists he has influenced and for the general public,” said Jeffrey Deitch, Mr. Koons’s former dealer and his friend, who was counting on holding the retrospective at the Museum of Contemporary Art in Los Angeles when he was the director. (Mr. Deitch left the museum last year, and the show will not be traveling to Los Angeles.) “Despite their sophistication, they are accessible. Everybody can relate to a child’s toy or a vacuum cleaner. You don’t need to know art history to be knocked out by them.”
Mr. Koons, who has been making art out of kitsch since the 1980s, has been slammed by some critics as glibly calculating, even as others have praised him. In 1991, Michael Kimmelman wrote in The New York Times, “Just when it looked as if the ’80s were over, Jeff Koons has provided one last, pathetic gasp of the sort of self-promoting hype and sensationalism that characterized the worst of the decade.”

The occasion was a show at the Sonnabend Gallery of paintings depicting Mr. Koons and his first wife, Ilona Staller, the Italian porn star and politician called Cicciolina, engaged in sex acts. (He is now married to Justine Wheeler, an artist who worked in his studio, and they have six children.)

More recently, his work has received considerable praise here and in Europe, where he has had several shows. And one, at the Château de Versailles in France, got considerable attention good and bad for placing a plexiglass-enclosed display of vacuum cleaners and floor polishers in front of the official portrait of Marie Antoinette and installing a bare-breasted blonde holding a pink panther in the same room with a 1729 painting of Louis XV conferring peace upon Europe.

Part of Mr. Koons’s magic is the perfection and seemingly effortless appearance of his objects, but museum experts say they are among the most technically challenging produced today.

“Many of the sculptures are as delicate as Fabergé eggs,” said Mr. Rothkopf, describing their shiny, painted surfaces as one example of why this show is costing “millions of dollars,” for insurance and shipping and refabricating, for example, aging basketballs. (Mr. Rothkopf refused to give exact figures but said the show is the Whitney’s most expensive.)

A list of its lenders reads like a Who’s Who of today’s powerful collectors, including the British artist Damien Hirst, the Los Angeles financier Eli Broad, the hedge fund billionaire Steven A. Cohen, the luxury goods magnate François Pinault and the real estate developers Harry Macklowe and his wife, Linda.

By all accounts an artist with this much celebrity should have had at least one major show in a New York museum by now. Cindy Sherman and Richard Prince, who also emerged in the 1980s with Mr. Koons, have each had two.

It’s not for lack of trying. Starting in 1996 the Guggenheim Museum had a Koons exhibition on its schedule. But skyrocketing costs coupled with difficulties in making the works to Mr. Koons’s exacting standards killed it. (Not all has been lost for the Guggenheim. After the Whitney’s show closes, it will travel first to the Pompidou Center in Paris and then the Guggenheim Museum in Bilbao, Spain.)

Asked why they finally abandoned the idea, Lisa Dennison, a former Guggenheim director who is currently a chairwoman of Sotheby’s, said that besides the rising costs, “finding the technology to match Jeff’s vision became impossible.”

It is still his biggest problem. In addition to “Play-Doh,” crews are racing to finish several significant sculptures from his “Celebration” series, a group of childlike objects, including party hats, Easter eggs, kittens and the now famous “Balloon Dog.” (And Mr. Bell has yet to see two other purchases: a black granite “Popeye,” which is slated for the retrospective, and a 10-foot tall “Party Hat,” which is not.)
And so, on that spring day, greeting his helicopter pilot like an old friend, Mr. Koons rose above the rush-hour jam on his flight to the Polich Tallix foundry in Rock Tavern, N.Y.

In its cavernous space dozens of workers stood by, anxiously watching Mr. Koons’s reaction to the progress of “Play-Doh.” The artist gently caressed a rippled portion of the aluminum surface and said, in his signature monotone that almost seems scripted in its sincerity: “Look how sensual these forms are. When you rip Play-Doh apart and stretch it, you get these lines. It’s like a Rodin sculpture.”

Later in the day, back at the artist’s Chelsea studio — where more than 100 assistants were performing any number of tasks, including painting canvases and choosing which of some dozen store-bought inflatable monkeys might be replicated as sculpture — it was easy to see why everything Mr. Koons does takes so much time.

Realizing “Play-Doh” was “almost Pharaonic,” Mr. Rothkopf said. There was also a re-creation of the Liberty Bell under way, made of bronze. An assistant was painting its wooden stand, choosing from a palette of 129 shades of brown, each matched precisely by computer to the original.

“It’s a moral exercise to make something as realistic as possible,” Mr. Koons said, explaining that he liked his Bell not only for its “sense of history” but also for its sensuous shape, a “feminine form.”

His choice of colors for “Play-Doh” was equally exacting. Mr. Koons ran off, coming back with a tray with small containers of vintage, dried-up Play-Doh, dating to 1994. “Over the years, the company has changed its colors,” Mr. Koons explained, asked why he had saved the samples and original containers. “They are easy to refresh with a little water.” Tiny mounds of bright yellow, blue, purple, red and green will be matched and spray-painted on the cast-aluminum parts at a company in Connecticut that specializes in decorative painting of hot rods and vintage cars. Then they will be assembled into a gigantic mound.

Finishing “Play-Doh” in time for the retrospective is one hurdle. Installing it on the museum’s fourth floor is another.

A few days later, Mr. Rothkopf and Graham Miles, an art handler at the Whitney, were hunkered down in the museum’s subbasement, planning maneuvers. “It has been like a military operation,” Mr. Rothkopf said. The installation of the show will take three weeks, with crews working seven days a week in 11-hour shifts.

Not leaving anything to chance, Mr. Miles’s team, working with assistants from Mr. Koons’s studio, made a video of a small-scale model of “Play-Doh” to chart exactly how it will move through the museum lobby, into the elevator and up, where it will join other works from the “Celebration” series.

“Every 16th of an inch is critical,” Mr. Miles said. “There’s no room for error. It’s like getting a ship in the bottle 30 times over.”

Mr. Rothkopf said he and others from the Whitney felt it was crucial that the museum’s last show, which is expected to generate record crowds, be like no other.
“We didn’t want to leave uptown feeling nostalgic, we wanted to go out with a bang,” he said. “Let’s just hope we don’t bring the building down with us.”