

How Art Storage Facilities Prepare for Natural Disasters

By Daisy Alioto
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Art storage facilities charged with the preservation of paintings, sculptures, and other cultural works share a mandate that is in some ways similar to that of Norway's seed vault. That underground bunker houses a collection of food crop seeds, stored to restart the world's agriculture after a "doomsday" scenario. But the vault, which faced flooding following the unexpected melting of permafrost last year, is itself already feeling the effects of climate change.

Though not quite as necessary (or edible) as food, art sustains humanity in an important way. And art storage facilities are also dealing with the threat of climate change. As stewards of artwork, cutting-edge storage facilities actively work to address the increased temperature shifts, severe storms, and erratic weather that are all part of climate change projections.

In October 2012, Hurricane Sandy barreled into New York, causing widespread flooding in Chelsea and at the art storage facility Christie's maintains in Brooklyn. Since then, the storm has become a frequent frame of reference for New York art collectors, now keenly aware of the city's vulnerability to flooding. **"If they don't [mention Sandy], their insurers do," says Kevin Lay, the director of operations at ARCIS, a soon-to-open Harlem storage facility.**

That has storage facilities eager to boast about how the work inside is safe from natural disasters. As a result of the hurricane, the Federal Emergency Management Agency (FEMA) revised its flood and surge zones for the city of New York. Some storage facilities now openly advertise how far they are outside of these zones as a way to drum up business.

“Of course hurricanes are number one on everybody’s list, both in New York and in Florida,” says John Jacobs, CEO and President of Artex Fine Art Services, which operates storage facilities in New York City, Washington, D.C., Boston, Fort Lauderdale, and Los Angeles. “The awareness of the potential for flooding from hurricanes is much greater than it has been in both New York and Miami,” he noted. It’s no wonder: Three out of five of the nation’s costliest hurricanes occurred in the last 10 years.

The basic blueprint of all Artex’s facilities are similar in terms of environmental controls such as humidity, cooling and backup generator capacity. Jacobs works with AXA ART Insurance Group’s Global Risk Assessment Platform (GRASP) to evaluate his facilities with over 2,000 industry standard questions ranging from the design of the building to institutional policies and workplace conditions. Jacobs says that GRASP is especially thorough, because it recognizes the crucial role employees play in disaster mitigation: “It’s one thing to have a fancy facility, but does your staff have the right training to handle art property either routinely or in an emergency?” he asks. Regional climate affects the facilities’ placement. This explains the choice of inland Fort Lauderdale over art hub Miami and Artex’s 2013 move from Chelsea to Long Island City, 55 feet above sea level.

Fires also pose a threat to art collections. While it is difficult to link any single fire to climate change, “scientists have found that human-caused climate change is increasing the frequency and size of wildfires for much of the United States,” *Vox* recently reported. In early December, lovers of the J. Paul Getty Museum white-knuckled through the Los Angeles wildfire that raged not far from the museum (though a major freeway provided a firebreak that the fire never crossed). But robust fire protections built into the museum and the surrounding landscape led officials to insist that “the safest place for the collection to be is right here at the Getty Center,” as a spokesperson told Artsy at the time.

Even when the art stored in museums and secure facilities is safe from disaster, art storage facilities are increasingly being called on to evacuate vulnerable work from collectors’ homes to safer harbor. This has them operating in some hazardous conditions. Elsewhere in the Los Angeles area, Artex kicked into gear to evacuate art from clients’ homes threatened by the fire. “We had a number of private collectors calling us, and that was a situation where things were happening so rapidly that it was very difficult to respond,” says Jacobs. “We had crews in pulling things out literally minutes before the houses caught on fire. And we were able to save a fair amount but you have to balance the risk to the staff and people and equipment.” Artex also evacuated art from New Orleans after Hurricane Katrina. “As soon as the national guard would let us in, they brought us in with armed escorts to start pulling things out,” Jacobs says.

Art storage facility UOVO, with its flagship in Long Island City, has also been called to evacuate art on short notice due to fire and floods. “On numerous occasions, we’ve received calls, literally on weekends even—Saturday and Sunday morning—from people’s offices, homes, and smaller-sized museums because someone saw a leak or a fire occurred, and they need a safe storage alternative immediately,” says executive vice president Clifford Davis.

Generally, the best disaster strategy is to keep art in storage facilities, where it is safe and sound behind layers of climate protection. The soon-to-open ARCIS building has 100 percent mechanical redundancy, meaning it has two HVAC systems and atomizers (which control humidity). The generator runs on natural gas, rather than diesel. **“In the event of some natural disaster, we don’t have to run a diesel generator,” says Lay, “Good luck getting that diesel delivery when everyone else is trying to do the same thing.”** UOVO has two onsite backup generators, and can run autonomously for two weeks, says Davis. **“We joke that if you see us moving artwork out of that building in an emergency circumstance something has gone very, very wrong in New York City,” says Lay.**

While the climate protections built into major high-profile public museums like the Getty and the Whitney receive a great deal of press attention, the risk mitigation strategies employed by private storage facilities are similar, and increasingly interrelated. Artex, ARCIS and UOVO all function as supplementary storage for major museum collections. Jacobs estimates that 70 percent of his business is museum-oriented. Consequently, the facilities are purpose-built to museum-quality standards.

Adrian Tuluca, a senior principal with the architectural consulting firm Vidaris, conducted thermal analysis on ARCIS shortly after performing the same process for the new Whitney Museum building. Tuluca used computational fluid dynamics modeling (CFD) to determine how to stop condensation—which could lead to mold—from forming within the walls of the facility should temperatures outside drop to 20, 11, or four degrees Fahrenheit. He’s also done this same analysis for Diller Scofidio + Renfro’s upcoming Hudson Yards arts facility and the Shed, which required writing custom code to address the building’s unique moveable shell.

As they look to the future, those tasked with safeguarding culture from natural disasters are thinking broadly about the threats posed to artwork. “In this time of changing climate, anything’s possible,” says Jacobs. He talks to art museums around the country about their plans in case of a disaster—whether a major storm, or a terrorist attack. In the world of insurance, the legal umbrella of force majeure, or unpreventable circumstances, includes both “acts of god” (such as a hurricane) and “acts of man” (such as a riot). We may look at the looting of Palmyra and the flooding of Miami as separate events, but the effects of climate change do have a direct impact on human action. The nonprofit Saving Antiquities for Everyone (SAFE), gives multiple examples of cultural artifacts being looted in the wake of environmental disaster. No one tasked with running art storage facilities believes in taking a passive approach to the external threats posed to the work inside.

“Taking care of cultural property is my religion,” says Lay. “I would almost rather die than let something happen to an artwork.”