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A Room with a View

By Ellen Wolff

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Viola spent years developing the scenes that comprise Going Forth By Day, which include (top to bottom): "The Deluge," "The Voyage," and "First Light."

The first thing you see is light pouring through an open door. This light marks the entrance to the new HD video installation *Going Forth By Day*, created by American artist Bill Viola for the Deutsche Guggenheim Museum in Berlin. Stepping inside, you discover that the light shining on you is from a 12'×16' image of an underwater swimmer projected on the doorway wall — one of five projections playing upon the walls of the 30'×80' gallery, like paintings come to life. "A five-part projected digital-image cycle" is how Viola describes the installation. "Viewers are free to move around the space to watch each image panel individually or to stand back and experience the piece as a whole," he says.

Once visitors clear the light that illuminates the entrance wall, they see four videos in which enigmatic, sound-effects-only scenes unfold over 34 minutes. To their left, a 7½-foot-high, 36-foot-long panorama dominates one wall, depicting people walking dream-like along a path through sun-dappled woods. On the wall straight ahead is a 12'×16' image of a city building's stone facade. People passing by this building run the human gamut — from gangbangers to nuns. But all confront the same disaster when the building suddenly bursts with a deluge of water that comes, surprisingly, from within.

Meanwhile on the right-hand wall, two poignant scenes play out side-by-side, each projected 7½ feet high and about 10 feet wide. In the first, an old man lies dying while his possessions are loaded onto a boat in the distance — a boat that the man himself later boards for a voyage to an unknown shore. Projected alongside is a tableau suggesting a failed rescue effort following a flash flood. Long after emergency workers have abandoned hope, a drowned man rises unexpectedly from beneath the water and floats upward out of sight while the first light of dawn arrives. Within moments of this resurrection, the images on all four walls go black, and after a brief pause, the image cycle begins anew.

Orchestrating this presentation was a huge undertaking even for Bill Viola, who has spent more than 30 years pioneering the art of video installation (see "An Artist Ahead of His Time," page 34). While the latest HD technology was employed to realize these images, Viola nonetheless likens the challenge to what fresco artists faced centuries ago. "The way Michelangelo and Giotto worked bears a close resemblance to the way large-scale contemporary productions are made. They vied for guys who were good at mixing plaster, or painting hands — just like directors today hire specialists in lighting and sound," he says.

Visitors to the Going Forth By Day video installation at the Deutsche Guggenheim Museum in Berlin view Viola's multi-walled, HD-shot imagery.

The Science of Installation

The fresco analogy is apt, and not just because these panels can be interpreted as being part of a larger narration, as their painted predecessors often were. Viola's "moving frescoes" are projected right on the museum's walls, enabling visitors to examine them like paintings, in detail. "You can get really close without the projector shadow happening," says DP Harry Dawson, Viola's cinematographer. This is possible, he notes, "because Bill went with analog projectors and that gave him a steeper angle on the projection." Explaining his choice of Marquee 9500 Ultra LC CRT projectors over digital ones, Viola says: "In my opinion, the image quality of CRT projectors is superior at this point to DLPs and LCDs. I might feel differently if I had one of those $125,000 DLP Digital Cinema projectors, since some of those are pretty good. But for the black level and overall image quality of cinematic — rather than computer images — I think CRTs are better."

Viola's director of installation, Bettina Jablonski, adds, "Most people don't consider CRT projectors contemporary because they're much more difficult to maintain. But you have the ability with CRTs to get close to the image and not see the pixels as much. The resolution is much better." Of course, with seven projectors running simultaneously in the Guggenheim gallery (four for each of the single panels and three for the panorama), configuring the projectors was, Viola admits, "pretty tricky. We're within inches of having projectors casting shadows in each other's beams."

Bill Viola (left) during post with POP Sound mixer Mitch Dorf (center), and Soundelux sound designer Mikael Sandgren.

The equipment used for the Guggenheim installation was acquired and installed by Screen Technologies GMBH, of Rosbach, Germany, since the Guggenheim wanted a German company to ensure local tech support. The choice of equipment, however, was based on research conducted at Viola's studio near Los Angeles.

"We set up demos with companies that make both projectors and servers, and from those tests we established an equipment list," Jablonski recalls. "Because the business of high-definition is so new, I don't think there are that many clients yet. So these companies went out of their way quite a bit."

Going Forth By Day is running at the Guggenheim off two high-def servers, one with three channels to handle the panorama, the other with four channels to handle the single panels. To customize the servers (manufactured by Minneapolis, Minn.-based Visual Circuits) for this installation, Viola's team worked with Visual Systems of Valencia, Calif. The programming, done by Media-Mation of Torrance, Calif., was designed to give Viola seven channels playing in sync. Thirteen JBL 4408 Studio Monitors were positioned to handle the sound.

Viola with postproduction supervisor Michael Hemingway

The Art of Presentation

(left), and LaserPacific HD editor Brian Pete (right).

Synchronizing five panels presented substantial creative, as well as technical, challenges. “I knew there had to be relationships between these pieces based in time,” says Viola. “There was certainly an architectural relationship among them, but they had to be synchronized so there were temporal relationships between the events in different panels.”

Two panels were relatively easy. The panorama known as “The Path” depicted a scene that was essentially a visual loop, with people streaming through the woods without end. The “Fire Birth” panel on the entrance wall, with its mysterious underwater swimmer, was also malleable with respect to time. But the flood that bursts the building in “The Deluge” had to be timed so as not to compete with the other two scenes playing on the adjacent wall. The massive flood could easily overwhelm the subtleties of an old man moving beyond death in “The Voyage.” And the drowned man rising from the water in “First Light” was a pinnacle moment that needed its own space.

While Viola had spent years nurturing the ideas for these individual scenes, the “master timeline” that determined how they would complement one another was decided just two weeks before the project's completion. “That was,” admits postproduction supervisor Michael Hemingway, “a little hair-raising.”

The production's incredibly tight schedule prevented Viola from working things out as he typically would. “Normally, I'd edit each piece, dub it onto VHS tapes and play with them in my studio for a week. That's in an *ideal* world,” he says.

Helping Viola achieve what he needed in the real world was Brian Pete of LaserPacific, who edited the pieces in the Hollywood facility's realtime HD room. The 34-minute videos were edited this way because each piece played out as a continuous shot, and scanning them all would have been prohibitive. Despite the huge hurdles presented by working with such long takes, Pete offered Viola a small-scale simulation of how the three narrative panels might coincide.

“We did a session where Brian had three images running simultaneously,” Hemingway recalls. “We had ‘The Voyage’ running full screen on the monitor and then we did two small DVE compressed versions of ‘The Deluge’ and ‘First Light’ running almost like those picture-within-a-picture television sets. They were running in sync so we were using three playback machines in order to finalize how the sync points would work. It took until 4 a.m.”

Known for paying scrupulous attention to detail, Viola orchestrated the actions in these panels down to the smallest gesture. Despite the fact that each panel appears to show a single take from a fixed camera position, Pete actually executed hundreds of edits that mixed elements from different takes. For both “The Path” and “The Deluge,” he removed images of some actors and added others whose performances Viola preferred. This allowed the artist to both adjust the time frames and finesse the behaviors on-screen.

For “The Deluge” in particular, Viola's choice of a 4:3 aspect ratio provided some room to play with the image, recalls Pete. “We could essentially use the outer parameters of the 16:9 screen as a work space. That gave us much more freedom to extract people because we only had to account for the center portion of the screen.”

Because Viola had shot various takes outdoors over several days, matching the lighting from different takes was no small task. Pete credits LaserPacific's color timer Tom Overton with making them blend together.

"The color saturation of HD was a big benefit," he says.

"Bill is meticulous when it comes to things that might show up in the projection," Pete adds. "During editing we relied primarily on our Sony monitors, so Bill took DVCAM downconversions back to his studio and projected them full-scale to double-check. That helped reassure him that the details we were seeing on our pristine HD monitor were actually translating to the projected image."

"Even on a lesser-quality projector," Viola recalls, "the images looked incredible. I could see the earrings and wristwatches that people were wearing on 'The Path,' even though they were pretty far away. I was floored."

Because Viola's studio contains a space almost as large as the Guggenheim's gallery, Viola says the full-scale projections allowed him to verify that the proportions they had worked out on graph paper were going to work in real life.

With the edits complete, LaserPacific's David Register supervised the MPEG-2 encoding direct to servers. But even when the images were on their way to the Guggenheim, Viola was still "flying blind" to a certain degree. He wouldn't really see how all the full-scale images played together in HD until their installation in Berlin.

The Atmosphere in the Room

While Viola worked nights with Hemingway and Pete on the visuals, he also had a parallel daytime collaboration underway with an audio team. Viola has done his own sound work in the past, but *Going Forth By Day* was too massive, so he engaged sound designer Mikael Sandgren of Hollywood-based Soundelux. Sandgren had his work cut out for him, since, with the exception of a few spoken words in "The Voyage," Viola's pieces were shot MOS. Their audio accompaniments had to be completely invented.

"I never use music, and rarely dialogue," says Viola. "When I took Mikael through my approach to ambient sound, my first instruction to him was 'There is no silence.' I think that the '3D' part of this installation is, in a way, embedded in the sound. It links everything together because you hear things that are happening behind you, beyond your field of view."

Working with Pro Tools, Sandgren compiled a pool of sounds that, he recalls, involved thousands of files. "Sometimes Bill wanted sounds that tied into the pictures, such as water for 'The Voyage.' But we did Foley sessions only when we absolutely had to, like the sounds of the emergency workers packing up their tools in 'First Light.' Most of the sounds seem at first like they *could* have been recorded on set, but upon further listening you hear something different."

What *isn't* heard is sometimes as important as what is, particularly during the serene panorama of people walking along "The Path." Sandgren crafted a "footstep ensemble," as well as sounds like bracelets jangling. "We also used sounds of people coughing, and when you hear that, you realize they're intentionally silent," he says. "It makes you wonder, 'Why aren't they talking?' The feeling was more powerful than I thought it would be."

Viola and Sandgren took their sounds to mixer Mitch Dorf at POP Sound in Santa Monica. Dorf admits that when he heard about "The Path" he asked, *"How* big is that screen? Thirty-six-*feet* long? We decided to do it with four channels instead of a pair of stereo channels so that we could actually change the sound

spectrum as viewers walked the 36 feet. They'll feel, in some sense, like they're moving through the woods." To plan this mix, he recalls, he found "a long hallway at POP and paced it off. People passing by who saw us pointing at a blank wall thought we were nuts.

"These are 'paintings that move,'" Dorf continues, "so we aren't blowing sounds at you all the time." As a result, there are subtle, processed, ambient sounds in "Fire Birth," as well as various animal sounds in several places throughout the gallery. The speakers are positioned to create areas of different sounds that viewers move through. The big exception, naturally, is the sound of "The Deluge," which includes earthquake rumbling, groaning wooden ships, and volcano sounds, pitched down to create intriguing effects. "I filtered out sounds below 80Hz until the flood hits, and then the lower frequencies kick in," Dorf explains. "When the flood happens, it takes over the room."

Thirty-Four Moments of Truth

The room at Viola's Deutsche Guggenheim opening was packed when *Going Forth By Day* premiered in February. Viola compares it to "those sit-ins from the 1960s, with wall-to-wall people sitting on the floor." The artist lingered for a few days watching the crowds "like a fly on the wall," and noted that museum attendance was three times more than normal. Some visitors even camped out in front of each panel for the full 34-minute cycle — staying for more than 2½ hours.

Despite the pioneering effort that it took to produce such an intricate work in HD, Viola concludes: "When I saw it assembled full-scale, I realized that this never in a million years would have worked in standard definition. I really needed the resolution of high-def."

Going Forth By Day closes in Berlin this month, and travels to Guggenheim museums in New York City and Bilbao, Spain. Viola is already contemplating how its presentation may change in different architectural settings, or might evolve as technology improves.

"I keep the raw materials so we go can back to them," he says. Those materials include the Pro Tools audio files as well as the HD masters. Viola observes that while the current show is running at a 30Mbs rate, "that will definitely get better in time. We'll eventually be able to show this in full HD bandwidth. Thinking that this can be realized in its full HD glory on much better quality projectors, running uncompressed or with some sort of super-advanced compression scheme, is kind of fun."

Until then, Viola is prepared to tweak the current version of *Going Forth By Day* if necessary. "We've got a phone line hooked up to the server at the Guggenheim, so theoretically I could re-edit it and send changes to a secure website. They would wake up the next day in Germany and the piece would be a little different," he says. And that possibility, Viola smiles, "gives me thoughts about creating a future piece that's never twice the same!"

Ellen Wolff is a Southern California-based writer who frequently covers digital imaging projects.

Sidebar An Artist Ahead of His Time

He's been called the Rembrandt of the video age, an artist who uses the moving image to create painterly, highly emotional pieces that have been seen at museums and galleries the world over. Since 1972, Bill Viola has used video to create environments that envelop viewers with visuals and sound. Electronic

images, Viola believes, have particular power because they transform over time, fulfilling the perennial artist's dream of bringing paintings to life.

Viola focuses on depicting aspects of life that can't be codified into neat, narrative movies. Many of his pieces, like 1991's *The Passing* and '92's *Nantes Triptych*, explore themes of birth, death, and human consciousness. Viola is also known for videos that use slow-motion techniques to probe human perception, such as 1995's dreamlike *The Greeting*, in which 45 seconds of action unfold over 10 minutes.

A true Renaissance man, Viola has always pursued new technologies, even building his own equipment. He was among the first artists to experiment with handheld and surveillance cameras, and he's pioneered projection techniques with unique configurations of LCD panels, plasma displays, mirrors, and rotating screens.

Viola has been honored with a so-called “genius” grant from the MacArthur Foundation, and he's received fellowships from the Rockefeller and Guggenheim foundations. In 1995 he became the first video artist to represent the United States at the prestigious Venice Biennale art exposition, and a 25-year retrospective of his art organized by New York's Whitney Museum traveled Europe and the United States from 1997 to 2000. Working from his studio in Southern California, Viola continues to be involved in a striking range of projects, from a scholar-in-residence association with the Getty Museum to a collaboration with the rock group Nine Inch Nails.
— *EW*

Sidebar Credit Roll *Going Forth By Day*

Conceived and directed by Bill Viola
Executive Producer — Kira Perov
Producer — S. Tobin Kirk
Director of Photography — Harry Dawson
Production Designer — Wendy Samuels
Postproduction Supervisor — Michael Hemingway
Visual Effects Supervisor — David Blum
Editor — Brian Pete
Sound Designer — Mikael Sandgren
Sound Mixer — Mitch Dorf