



That outside party is Ivan Dryer, creator of the Laserium and founder of Laser Images Inc., which has been Nuys since 1973. “We’re still kicking,” Dryer said when I reached him at his office. “And working on a new pl Laserium back to the public.” The old laser and projector equipment from Griffith Observatory, unceremonio a basement when renovations began, is back at the Laser Images facility, and when I asked if I could see it, “It’s in pretty bad shape, but you can visit us here — and see a show while you’re at it.” It turns out that Drye of laserists and technicians have been putting on small, occasional Laserium performances in a converted s past couple years. “This Saturday is the Beatles, then Pink Floyd, then Led Zeppelin. Come on up!”

Laser Images Inc. operates out of a semi-industrial cluster of buildings near the Van Nuys Airport. The halls are painted with black-light murals of galaxies, and there were smoke machines working at full strength when Dryer showed me around one recent Saturday night. “We have two studios here, one for our main show, and another smaller one,” he said. “And the lasers are back there.” It’s not quite as majestic as the Griffith Observatory overlooking Los Angeles, but to Dryer it feels like home. “This is where we’ve been building projectors since 1974.”

Dryer dreamed up the Laserium a few years earlier, in 1970, the exact right cultural juncture for such an idea to take root. The counterculture was in full swing, and lasers, demonstrated for the first time just a decade earlier in 1960 (in Malibu, no less), were becoming an affordable, commercial technology. Dryer, a former astronomy student turned filmmaker, saw a public laser demonstration and sought out Caltech physicist Elsa Garmire, who was experimenting with the artistic possibilities of laser light.

“I was awestruck,” Dryer explained in his conference room. “The laser display was beautiful, and there was backscatter lighting up the equipment room. I set up the camera and couldn’t turn it off.” Dryer filmed the light show with the hope of setting it to music. But lasers are pure color; they emit coherent light in narrow wavelengths. When Dryer’s reels were developed, he realized that film would never be able to capture the color saturation and quality of the original laser light.



Light showman:
Laserium’s

Desiring a live show, Dryer contacted the Griffith Observatory, where he had once volunteered as a guide. As a test, Dryer brought in a red helium neon laser, some optical diffusers and a tur up, put on Corelli’s ‘Christmas Concerto,’” recalls Dryer somewhat wistfully, “and hypnotized everyone.”

Everyone except the observatory’s stodgy director, who declined Dryer’s offer. Dryer wound up getting som combining his new technology with the spirit of the times when he signed on to shoot concerts and do laser movie called *Medicine Ball Caravan*, a Woodstock-like travel documentary by French director Francois Reic chronicled the tour of Alice Cooper, B.B. King and the Youngbloods. (The film retains some cult cachet toda laser visuals than the fact that it was edited by a young Martin Scorsese.)

Once recovered from that odyssey, Dryer got a second crack at Griffith Observatory, which in 1973 hired Wi at 28 the youngest director in the institution’s history. Hipper than his predecessor and interested in attractin

audience, Kaufman gave Dryer a trial run in the dome. Dryer and his partner, Charlie MacDonald, borrowed a laser, a full-color machine capable of putting out reds and violets so deep they're just this side of invisible.

"We finished building the system at 5 in the morning the day of the show," Dryer said. "We went on a radio show that day. Other than that, there was little promotion. On the first night we were mostly full. By the end of the run, we had to turn away 500 people."

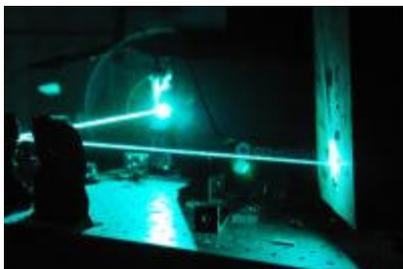
This was when DVDs or Lasik surgery would have been science fiction. Before revolutionizing communication, measurement, energy and electronics, lasers were lighting up Emerson, Lake and Palmer at Griffith Observatory. Laserium was, in fact, the first commercial use of lasers. And it took off.

When he was 3, Dryer attended the premiere of *Fantasia* in San Francisco, so it's perhaps fitting that he found an impresario of an audiovisual extravaganza. Also a fan of *2001* (which he's seen 20-some times), Dryer says the early Laserium programs were inspired by Kubrick's visual approach to music (and musical approach to visual). He used the music from *2001*'s colored-light sequence beyond the monolith, and maintains that their most memorable Laserium piece mirrored the space ballet set to *Blue Danube*.

"I prefer classical, so we played Strauss, Respighi and Copland," Dryer said. But he and his partners quickly discovered "psychedelic music just goes well with the Laserium." Pink Floyd seemed to really do the trick. "The first program before *Dark Side of the Moon* came out, so we used *Meddle*. The finale was *Echoes*. And that just got people in a mood."

Laseria appeared in cities all over the world, from Athens to Rio to Tel Aviv. "There were also competitors doing similar shows in more locations," Dryer said. And movies like *The Black Hole* and *American Pop* incorporated Laserium. Eventually, Dryer even met Pink Floyd; while installing their London show, Dryer and his staff gave a commiseration performance for Roger Waters, who gave his official approval for the show, which went on to three sold-out shows.

"I had no idea how popular this would be," Dryer said. "It was supposed to be temporary and wound up as a phenomenon that as many as 20 million people have leaned back and watched the sky light up to music." What made that experience so popular? Dryer thinks it's something about the fundamental appeal of light: "The quality of that light triggers the brain, I think. It gets into the limbic system" — the central neurological structure where the passions reside. "The light and the music trigger our deepest emotions."



The Coherent Sabre PLD argon/krypton laser, which, at full power, would burn skin instantaneously.

Since Pythagoras' "music of the spheres" there have been theories of light and music working a pre-intellectual, pre-verbal magic on the human mind. The idea that the lighted paths of planetary bodies created a sidereal harmony of light was picked up later by mystically minded mathematicians, like Isaac Newton, Johannes Kepler and the Jesuit scientist Louis-Bertrand Castel. To realize his synthesis of color and music, Castel created the ocular harpsichord, which consisted of pieces of stained glass along with corresponding keys for tone. Color and music, after all, both fundamentally mathematical phenomena, and Castel thought that light represented a harmonic system at the root of the universe.

Following Castel came a variety of devices of increasing complexity: the color organ in 1816; Bainbridge Bishop's pipe-organ attachment that synchronized color with music in 1876; British painter Alexander Wallace Rimington's *Clavilux* in 1895, which attracted the attention of Richard Wagner, as well as the synchromium of composer Alexander Scriabin, who constructed a similar "keyboard of light" for the 1915 New York performance of his audiovisual work *Prometheus: Poem of Fire*.

Directly inspiring the Laserium was the work of Thomas Wilfred, a Danish-born artist who first created what he called "lumia" — shifting, organic, nebula-like light shapes from contraptions using conventional light sources and lenses and optics — as early as 1909. Wilfred, a theosophist, called his mystical machine the Clavilux, and his series of artworks were inducted, along with Jackson Pollock, Mark Rothko and Clyfford Still, into posterity by way of the "16 Americans" show in the early '50s. Two decades later, when Dryer visited Dr. Garmire's office, what so impressed him were the "undulating clouds of light" created by a homemade lumia wheel Garmire had built to work with her

"So we went to work here creating our own lumia wheels," Dryer explained as we continued our tour of the facility. "Garmire and his partners built their own molds, cast their own plastic, and experimented with materials. We built the Laserium by trying to find different interference patterns. It's been a constant process of development."

If there's a slight mad-scientist atmosphere at Laser Images Inc., it's at its strongest inside the equipment room. A greenish-white beam of the Coherent Sabre PLD argon/krypton laser casts its suggestive glow in the darkness.

beam splitting?” Dryer asked as we stepped closer. “Part of it goes to another room to power the projector in studio.” The 5-foot-long device, 5,000 degrees inside, requires continuous water cooling. A 480-volt, three-phase wall is giant, the size of a gorilla’s fist, and is connected to the laser with a two-inch-thick cable. It hums. Power would burn skin instantaneously. I half expected Walter Peck, the EPA official from *Ghostbusters*, to demand to shut the whole thing down. *And what is the magic word, Dr. Venkman?*

Instead, Ben, one of Dryer’s laserists, stepped in to explain the projector. “We do it all with smoke and mirrors. The beam is broken into four colors, then routed to mirrors.” A fiber-optic cable carries the signal to the two ends of the room where the show is staged. At the projectors, the laser wheels, mirror balls, and various other servo-driven optical devices create the effects we’ve all seen orchestrated to psychedelic Saturday night. Laser Images sells retail models of projectors like these for between \$60,000 and \$250,000.

When I asked about the original equipment from Griffith Observatory, Dryer lamented that it’s in the warehouse. “It got rusted in their storage. That was very disappointing,” he said. “It was the most sophisticated laser projector in the world, and now it’s in the boneyard.” Ben added that he misses some of the effects we could do with that on scans and modulated color fields.

The ignominious end of the observatory projector came after a steady decline, as laser shows went from countercultural background noise to tragic cliché. Updated music lists, including some questionable forays like the L Experience — “Them Bones,” by Alice in Chains? — did not stop the slide. With most projectors put to less use at corporate events, parties and Smash Mouth concerts at Irvine Amphitheater, there’s still business, just show business Dryer would prefer. After Griffith Observatory closed, there was a brief stint at Cal State Northridge planetarium, but that didn’t work out. “Eventually,” Dryer said, “we decided to do them here. In fact, the show started.”

After a demonstration of a side project called LightDancer, a fairly ingenious audiovisual karaoke contraption in which participant’s body movements create improvisational melodies and visuals to any tune, we filed into the main Beatles show. An assortment of worn thrift-store sofas faced the wall. Smoke drifted around. It seemed sad that Laserium has come from its 600-seat Art Deco home atop Mount Hollywood, although at the same time there’s a certain charm to the place — as the ultimate stoner’s living room.

The show started. It opened with “Twist and Shout” and hit about a half dozen poppy early Beatles tunes before “Tomorrow Never Knows” came on and made the Beatles’ first psychedelic invitation to “Turn off your mind, downstream.” The lasers worked their vivid way around the room in time with the rest of the usual suspects: “Mystery Tour,” “Lucy in the Sky With Diamonds,” “A Day in the Life.” The end was, of course, “The End.” Like the lasers, the large Mexican family that made up the rest of the audience loved it from start to finish. Even the young people born a decade into the post-screensaver generation, raised on sophisticated computer graphics from all directions, surely not recalling the forgotten time when you had to go somewhere and pay a ticket to be entertained by smiles on their faces.

Dryer hopes to re-create that time by relocating the Laserium to yet the grandest location of them all: the former Spruce Goose dome in Long Beach. “We’re working out a deal with them right now,” he told me after the show. The 260-foot-diameter geodesic dome, the largest in the world, has been mostly empty since the *Spruce Goose* moved to the Long Beach Air Museum in 1995. “We’ve got a lease to use 60 percent of the dome for our new show. That’s 1,500 to 2,100 people we can accommodate!” An ambitious plan, perhaps, considering the recent fortunes of the Laserium, but stoners cite it with joy, because Dryer’s never one to be discouraged. “We’re opening in January. We’ll have the regular laser show and the LightDancer. And shows with live music. We’re working with a tribute called Led Zepplica. They sound like the real thing. That’s something I’ve always wanted to do.”

See www.laserium.com for show information.