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Theater's Front-Row Seat to Digital Future

The Pacific Hollywood, built to debut the breakthrough technology of its day – talkies – now has a new role: showcase and lab for the high-tech replacement of film at cinemas.

By Alex Pham
Times Staff Writer

It is said that the ghost of Sam Warner haunts the musty spaces of the Pacific Hollywood theater, snatching cellphones and pagers and Palm Pilots when their owners look away.

The forlorn movie palace, locked behind metal security gates in the heart of Hollywood, was Warner's dream, the first theater built expressly for talking pictures. The second-youngest of the four Warner brothers died at 42, never to see what the Los Angeles Times called the theater's "dazzling" opening in 1928 — or its long, slow slide into dereliction in the decades that followed.

Charles S. Swartz takes comfort in believing that Sam Warner's spirit, at least, may be watching over the theater's rebirth as a sophisticated test center for the next generation of movie technology.

"The idea that we are now on the cutting edge of giving movies their next life into the 21st century would absolutely thrill him," said Swartz, executive director of USC's Entertainment Technology Center, a research group backed by the major studios as they gird for the advent of digital cinema.

If cinema's tomorrow is taking shape in a relic of its past, it's happening without a lot of glitz. Unlike the other movie palaces along Hollywood Boulevard that have undergone costly face-lifts — notably the El Capitan — the theater is to most eyes not ready for its close-up.

Its now-dowdy Spanish Renaissance auditorium looks just as it did when the theater shut in 1994, with faux stars flickering in the ceiling, faded red velvet seat covers worn thin with age and garnet curtains framing the screen. It smells vaguely dusty and damp.

On the roof, though, is the future: a battery of satellite dishes. And along the back wall of the Hollywood's projection booth, a bank of 12 powerful computer servers blink furiously. Peering out at the five-story screen are three projectors: A high-end model by **Kinoton** able to handle 35-millimeter and 70-millimeter film and two high-resolution digital projectors, all cooled with a dedicated air conditioning system.

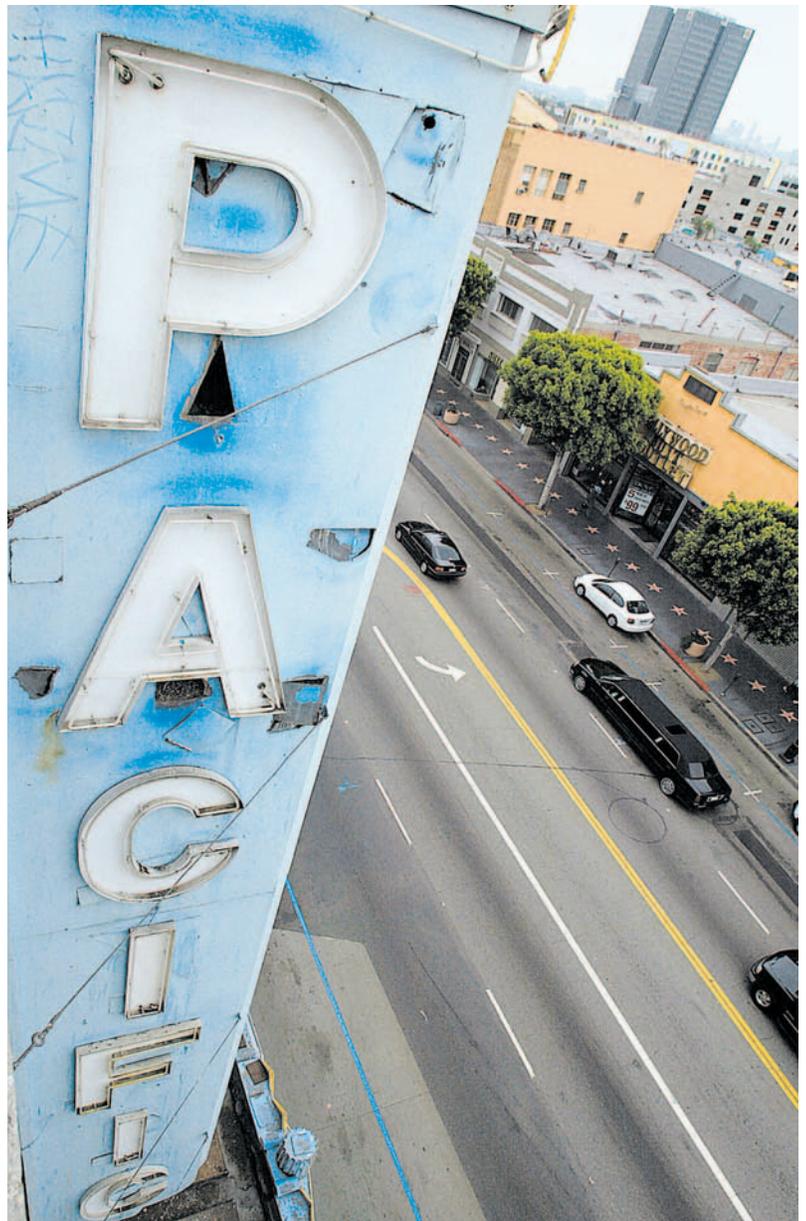


Luis Sinco Los Angeles Times

RESEARCHERS: Paul Miller and Charles Swartz of USC's Entertainment Technology Center at the theater.



DRAWING POWER: Lines form at the Warner Hollywood Theater for a 1950 film release.



Luis Sinco Los Angeles Times

LOST LUSTER: Pacific Theatres bought the Warner Hollywood in the 1970s. It was shut to the public in 1994 on safety concerns over the Northridge quake and subway tunneling.

Now Playing at Hollywood Theater: Digital Research

The \$1 million worth of equipment represents a fraction of the \$1 billion the seven major studios believe they can save annually by embracing a future without film, when movies shown in theaters will be the result of streams of 0s and 1s flowing either from a high-speed Internet connection or from optical discs.

That's years away. Many aspects of Hollywood production have already been digitized, from editing to special effects. Capturing and exhibiting the work remain almost exclusively film, though more and more productions are replacing film with digital cameras because it's easier and cheaper.

Converting theaters to digital remains the latest frontier for movies. By doing so, studios could save hundreds of millions of dollars currently spent on printing and distributing film. Plus, picture quality would remain perfect, unlike film, which degrades over successive trips through a projector.

Still years away, that transition is projected to be as significant for the movie industry as "The Jazz Singer" and the introduction of talkies was in 1927.

It was for "The Jazz Singer" that Sam Warner persuaded his brothers to spend their last \$1.25 million to build the Warner Hollywood Theater. Sam was fascinated by technology and worked personally with **Bell Laboratories** to develop the sound technology for movies, technology for which **Warner Bros. Pictures** held exclusive rights.

The Warner Hollywood Theater was intended to showcase it, and Warner personally oversaw construction. But it became clear in 1927 that the movie palace wouldn't be ready for the premiere of "The Jazz Singer," which instead opened that October in New York.

The night before the premiere, Warner died of a brain hemorrhage. Six months later, when "Jazz Singer" star Al Jolson spoke at the opening of the theater, a plaque remembering Warner was unveiled in the lobby. Over the years, Marlene Dietrich and other Hollywood A-listers strolled past that plaque on their way to countless premieres.

Some of those films are now being premiered anew on the cinema's digital projectors.

"At Christmas last year, we screened 'The Adventures of Robin Hood,'" Swartz recalled. "In 1938, 65 years ago, that movie had its premiere in that theater, shot in Technicolor. Now we're showing the same movie digitally restored and digitally projected."

These days, the theater's patrons are more geek than glam. Instead of bearing diamonds the size of marbles, they bring tiny computer chips that drive \$100,000 digital projectors.

Under the faux sky painted on the ceiling of the cavernous auditorium, Paul K. Miller, technical go-to guy for the USC center's digital cinema lab at the theater, held up one such chip recently. Packed on a 2-inch-square piece of silicon were 1.3 million mirrors that pivot on command to reflect light. The mirrors are so minute, and the spaces between them even tinier, that together they appear to be a single, smooth surface.

A single projector has three such chips, each reflecting either red, green or blue light, the three primary colors from which a rainbow of hues is possible. In the fast-moving digital age, though, the chip in Miller's hand has already been eclipsed by a chip that packs 2 million individual mirrors in the same 2 square inches.

One crisp Tuesday evening, the chips were the stars that 100 or so producers, cinematographers, motion picture engineers and directors came to gawk at. The occasion was the screening of test footage created specifically to push both film and digital technology to the limit.

Many in the audience still saw film as the gold standard for high-quality viewing. It has a familiar look and has been around long enough that people are comfortable using it. Still, digital technology is catching up fast enough to begin weighing the cost and benefits of both.

"Film is very good, but it's also expensive," said Swartz of the USC Entertainment Technology Center, which runs the lab. "They're easily scratched, they wear down over time, and they degrade when you make copies."

With digital technology, studios can make exact copies without compromising quality. And, unlike film, each showing doesn't degrade the quality of the movie, Swartz said. "The big question is how we can embrace this new technology and at the same time preserve the heritage of the past?"

On that Tuesday night, the screen was split into two, with film shown on the left and digital on the right. The images were identical, allowing viewers to compare the highest-quality film possible against the digital version.

At times, the digital version seemed sharper. Other times the film version appeared better. One viewer turned to his neighbor mid-screening and whispered, "Which one's digital?"

To the untrained eye, the shots would have been unremarkable — a tree swaying gently in the wind against a clear blue sky, confetti blowing out of a window, rain pelting cobblestone at night, a bride's face. There was no sound, no dialogue and no plot.

And yet the audience was riveted. The pictures were "crisp" and "snappy," some remarked later during a question and answer session. The colors were "saturated" and "lively," they said.

The event was sponsored by the Digital Cinema Initiative, or DCI, a consortium of seven movie studios: **Walt Disney Co.**, **20th Century Fox**, **MGM**, **Paramount Pictures**, **Sony Pictures Entertainment**, **Universal Pictures** and **Warner Bros.**

The studios formed DCI in 2002 to develop a common standard for distributing movies in digital form. Although the consortium is scheduled to release its minimum requirements this fall, it will be years before digital projection hits theaters. Converting from film to digital projection would cost U.S. theater owners billions of dollars, depending on the technology used.

Among the companies whose technologies are being tested for the DCI project are **Microsoft Corp.**, **Texas Instruments Inc.**, **Boeing Co.**, and **Sony Corp.** With so much money at stake, involving some of the heaviest hitters in film and technology, the DCI project is being closely followed.

Roy Wagner, cinematographer for the television show "CSI: Crime Scene Investigation," is among those keenly interested in the digital distribution of entertainment. "CSI" is among the network television shows shot and broadcast in high-definition digital video.

Sitting in the theater, Wagner said he was feeling a wave of nostalgia: He had been a projectionist there decades ago. Wagner, 57, remembers the first day he worked at the theater in 1970. He came in two hours early to explore the nooks and crannies.

"I found that the ceiling had these beautiful clouds that looked like they were built to move and stars with little lights in them that could twinkle," Wagner said. "It was a magnificent theater, and it really conveys what old Hollywood must have been like. You think of all the films and all the laughter, happiness and the tears shed by people in that theater. It's a pretty organic environment."

He nearly missed his first shift because he was so enchanted "that I nearly forgot why I was there."

Carol Burnett worked at the theater in the summer of 1951 as an 18-year-old usherette, dressed in an ill-fitting black satin outfit and a fez. She was fired from the 65-cent-an-hour job when she tried to persuade a couple against being seated during the last 10 minutes of "Strangers on a Train."

"It had this terrific surprise ending, and seeing it would just ruin the movie for them," Burnett said. "But the manager came along, and he fired me on the spot. So years later, when they asked me where I wanted my star on Hollywood Boulevard, I said, 'Right in front of the Warner theater!' " And that's where it went.

Shortly after Burnett's tenure, a curved Cinerama screen was installed. In the 1970s, new owner **Pacific Theatres Corp.** blocked off and divided the balcony to make the theater a triplex and replaced the Warner name with its own on the marquee. The theater was shut to the public after the Northridge earthquake and subway tunneling were blamed for making parts of the building unstable.

In 1999, USC leased the movie house from Pacific Theatres for an undisclosed amount. Pacific, which shut the theater in 1994 after the earthquake left the upper balcony unstable, had been using it for storing old seats, projectors and sundry equipment.

USC spent three days cleaning out the dust but did little else to change its aesthetics. Instead, the school focused its resources on creating a state-of-the-art projection room with the wiring necessary to accommodate the flow of computers and equipment that are brought in for testing, removed and replaced.

Although restoring the theater to its original glory would be too costly for USC, the school does plan to continue its high-tech work as long as there's a demand for such services from the movie industry. Given the controversial nature of digital cinema, that's likely to amount to years of work for the school.

"Technology has always been a part of cinema," Swartz said. "And it always will be."

It's a dictum Sam Warner certainly believed as he worked to develop and install the sound system in his theater, a system he never got to see work because of his death. As the decades rolled by, the tale of Warner's unsettled ghost haunting the theater circulated.

Miller — a no-nonsense, stout man of 59 who speaks in short, direct sentences, acknowledges that strange things have happened there.

"You're standing there alone, and you know no one else is in the building, but you hear your name called," Miller said. "You put a tool down, and it winds up missing. You lose stuff. Lights flash on and off. Doors open and close."

"It hasn't happened in a while, but when we've had screenings for the public, we'd lose gadgets," Miller said. "We think he likes technology."