

Open City

The new theme park Cinecittà World celebrates one of the world's great centers of cinema

By: Mike Clark



The outdoor fountain is divided into five zones with various effects.

Cinema buffs are well aware of the key role played by Rome's Cinecittà Studios in film industry annals: It has hosted more than 3,000 productions by filmmakers such as Francis Ford Coppola, Martin Scorsese, and Mel Gibson, as well as many Italian directors, including Federico Fellini, Roberto Rossellini, Luchino Visconti, and Bernardo Bertolucci, to name a few. An astonishing 48 of the films made, in whole or in part, at Cinecittà have received Academy Awards, with 83 earning nominations.

Cinecittà is still a hub of the European film industry, and also caters to the entire production chain of TV, publicity spots, and video clips. Its leading-edge 25-suite digital department is perfectly integrated with other cutting-edge post-production services, such as Cinecittà Sound Art, which addresses sound and video post-production needs.

Its studios now also host large television productions, such as Roberto Benigni's December 2014 monologue on The Ten Commandments, a prime-time blockbuster on national broadcaster RAI's flagship Channel 1.

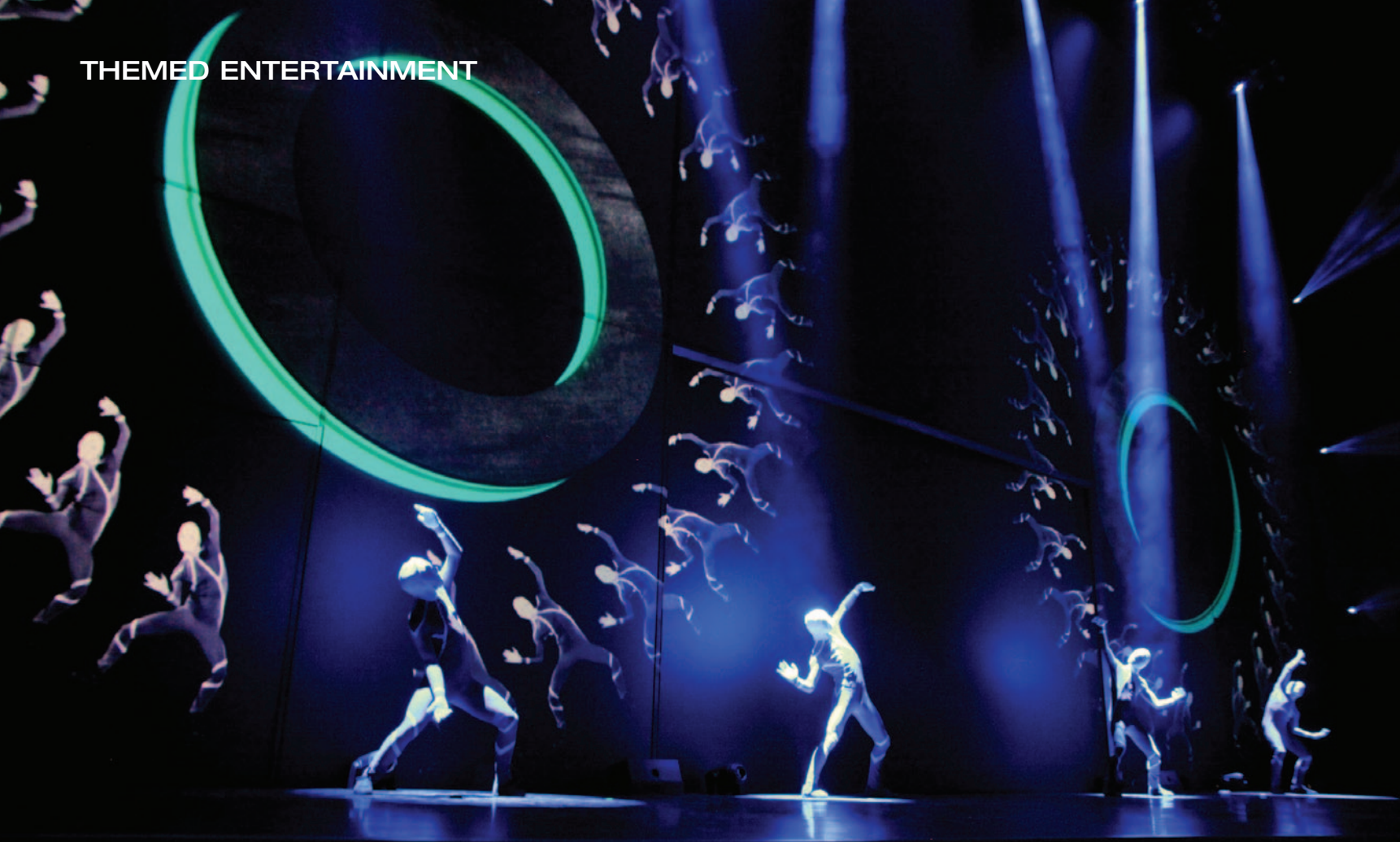
Cinecittà hit the headlines recently with the launch

(following an investment of 250 million euros) of Cinecittà World (CCW), a theme park with high-tech multimedia content and an original slant: It is Italy's first theme park dedicated to the cinema world.

Open over 260 days a year (one of the longest seasons in Europe), CCW offers a unique experience—a gateway to the magic world of cinema. Through performances in its four theatres and its 20 attractions, visitors are transported into an imaginary world where they become the protagonists, traveling through the park's eight sets with themes that include western, science fiction, ancient Rome, and 1920s New York, and are designed by triple Oscar-winning production designer Dante Ferretti.

Located in Castel Romano (9.3 miles from Rome) in the former home of Dino De Laurentis film studios, CCW is dedicated to cinema and entertainment and also has several quality restaurants, each with its own exclusive theme and Italian cuisine.

The five studios, where films such as *Barabbas* (director: Richard Fleischer), *Waterloo* (Sergey Bondarchuk), *The Voice of the Moon* (Fellini), *The Taming*



In *Enigma*, live dancers interact with their own projections.

of *the Shrew* (Franco Zeffirelli), and *The Bible* (John Huston) were shot, have been completely renovated and refitted and the two largest (2,400 sq. m. each) host a permanent show and a dark ride.

Dante Ferretti states, “For me, Cinecittà World is a conglomeration of dreams, impressions, and cinematic memories that shaped my personal and creative life. When I was asked to design a theme park inspired by Cinecittà at a location dear to me, I immediately thought it was an interesting proposal, because it would give me the opportunity of showing everyone, particularly youngsters and children, how to create sets inspired by the world’s great cinema, in a fun way.

“Cinecittà represents a sort of mother for me, as it did for Fellini,” Ferretti continues. “I’ve lived and worked there for 40 years and never thought of relocating. Nowhere in the world represents me like Cinecittà, and recreating the studios at CCW took me back in time. CCW includes attractions that have a significant meaning for me. My inspiration for the Erawan elephant, for example, was the battle scene in [Terry Gilliam’s] *The Adventures of Baron Munchausen*, in which the warriors ride elephants. I paid tribute to Scorsese, recreating the Broadway street of *Gangs of New York*, a film which I adamantly insisted be

filmed at Cinecittà—and Martin still thanks me to this day.

“Then there is the Ancient Rome area and the Western Village, a tribute to Sergio Leone, highlighted by a soundtrack by the genius Ennio Morricone. Cinecittà World is a very special place for me, as I am certain it will be for all those who come to visit.”

Enigma

Thanks to a partnership signed with Cinecittà Entertainment (part of the Italian Entertainment Group), Filmmaster Events produced *Enigma*, a live show that will run for three years in CCW’s Theater 1. Filmmaster Events is a division of content production company Filmmaster, with no fewer than five Olympic events to its credit: Salt Lake City 2002 (flag handover), Turin 2006 (ceremonies), London 2012 (flag handover), and Sochi 2014 (Paralympic ceremonies concept). The company is also producing the upcoming Rio 2016 Olympic and Paralympic ceremonies and the Olympic and Paralympic torch relay.

Winner of the 2014 Parksmania Award for the best indoor show, *Enigma* is a spectacle in which nothing is as it seems: a tribute to cinema, the greatest of illusions. An innovative high-tech “live movie” with an original soundtrack, it features dancers and performers interacting with



Enigma: Projection-mapped images appear on the huge soprano's dress.

set, and a custom operator interface to trigger the entire projection and control and adjust configuration, even while the show is in progress.”

Ventuz was used to realize a playout system that integrated all the functions necessary for running all scenes and mapping, and was designed to be completely automated and run in sync with an LTC time code, eliminating the need for an operator.

The custom control setup comprises four workstations, of which three control the projectors and the other the audio playout and time code system.

Sabella continues, “This system enabled us to develop the projection mapping on detailed 3-D files, with which we simulated projections before testing them on scale models, and then to build the actual props. It also enabled us to assemble a time line for the video content and a complex cue list.”

The all-Barco projector setup comprises four HDX-W20 FLEX units covering the 22m x 12m (72' x 39.3') backdrop, an RLM-W12 11,500-lumen WUXGA three-chip DLP projector with active 3-D capabilities dedicated to a 7m x 4m (23' x 12') “holographic” gauze scrim. Three RLM-W8 8,000-lumen WUXGA three-chip DLP projectors are used for mapping on objects such as a large sphinx, pyramid, and 6m (19') tall skirt. The choice of projectors and lenses and the positioning of the former were finalized following the 3-D simulations.

Sabella adds, “Various techniques were used to produce the video content, bearing in mind all the hidden doors and curtains on the set, to match real movement

“holograms,” 3-D projections, and special effects. *Enigma*'s creative director was Alfredo Accatino; the director was Romain Sabella, of Clonwerk; choreographer LACCIO, and production manager Massimo Palermo.

The Milan-based content production and management firm Clonwerk was responsible for the show's direction, projections, and graphics, Romain Sabella explains, “We used Ventuz real-time graphics content creation, authoring, and playout control software for the arrangement of pre-rendered content, projection setup, blending, warping, and mapping on parts of the



Enigma: A live dancer interacts with his multiple projections.

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and graphics. This was also done with dancers, recorded with chroma-keying and included in the projections, enabling us not only to multiply them, but also to create a series of effects where it was impossible to understand if dancers were real or not.”

Another interesting aspect was the use of “holograms” interacting with performers; at the start of the show, a dancer creates the *Enigma* logo (the Penrose triangle). Appropriately lit behind the gauze scrim, he shapes “liquid” matter, which takes solid form to create the logo. This required a considerable amount of work, from the graphic storyboard to the choreography, calculation of proportions, and on-stage movement.

The graphic production team used Photoshop, Premiere, Final Cut, After Effects, Nuke, Maya, Cinema 4D, and Soft Image.

Enigma's lighting was designed by Giovanni Pinna, who was contacted by Massimo Palermo and Filippo De Francisci, of Filmmaster, when the project reached the executive stage.

Pinna explains his brief: “As this is a show mainly based on video-mapping, I had to highlight the projections to the utmost, but at the same ensure that the performers—always on stage—are perfectly illuminated. I also had to ensure the rig was perfectly integrated in the design of the set, which is, in fact, an enormous surface for projections—a huge screen.” The difficult part was illuminating everything on stage without light spilling on to the projections, which Pinna accomplished using sidelight, backlight, and two very high frontlight truss bars, which are placed quite close to the stage.

Pinna's rig includes ETC Source Fours and, from Robe, ten Robin DLS Profiles, ten Robin DLF Washes, six Robin 600 LEDWashes, and 18 Robin Pointes. Lighting is controlled by an MA Lighting grandMA ultra-light console and MA onPC.

“I chose the Robin DLS and DLF precisely to solve these problems,” Pinna says. “I had to be able to shape both spots and washes in order to have the utmost control of the light on stage. Without beam-framing facilities I would never have been able to work from out front, or

from the sides, on such a shallow stage.”

Pinna chose the Pointes for their “real zoom, real frost, and a series of effects, prisms, and gobos that make them more similar to spots than beam light.” He chose the LED Wash fixtures for their power and versatility: “There aren't many, but I use them a lot, particularly on the audience,” he adds.

“I think we must have programmed around 700 cues, all run in time code. I couldn't have done the show if it hadn't been for Davide Matire and Marco Piva, as the busiest stage coincided with the tour I was out on with [top Italian rocker] Vasco Rossi.”

Martire followed installation, setup, and technical rehearsals, then Piva came in and completed over half the programming.

Pinna adds, “It's an unusual show, I'd say a unique genre that has never been produced in Italy. It's short, very intense, fast-moving, and with a great variety of scenes and spectacular parts. There's constant interaction between performers, projections, mapping, and graphics, as well as highly spectacular exciting parts dedicated to the lighting.”

The set for the 24m-high (78.75'), 43m-wide (141') stage was designed by Milan's Gioforma (production designer Cristiana Picco, set designer Claudio Santucci, and costume supervisor Florian Boje). Boje

says, “Our aim was to create an invisible ‘factory’ of effects and dreams.”

To achieve this, a second rear wall was built inside the theatre, hiding all the technology used to move carts on and off stage and providing more backstage space. The idea was to make the show appear from nowhere in front of a huge vertical surface.

Among the show's features, Boje says, are “a soprano's huge sparkling dress, covered with projections, that grows to an incredible height before vanishing; a set element that rotates to reveal an oversized doll's house with the singer inside; and a modular sphinx that transforms before spectators' eyes, thanks to projection mapping. Motorized curtains and scrims are invisible until they become ‘holograms’ and backdrops also contribute to creating a really astonishing interaction between set, performers, and



Dante Ferretti at the Erawan drop tower's elephant.



Ferretti's recreation of a street from *Gangs of New York*.



The Western Village, Ferretti's tribute to Sergio Leone.

projections.”

The show’s music was composed and played by Diego Maggi and Gianmaria Serranò, using software such as Digital Performer and Logic and a combination of virtual and real instruments. The soundtrack includes a finale with a variation on the theme from William Wyler’s 1953 film *Roman Holiday*, with Gregory Peck and Audrey Hepburn, which was shot on location in Rome and at Cinecittà.

The audio (music, effects, and voice-over) was realized on separate tracks and the final mix balanced on site to exploit the room’s acoustics and audio rig to the utmost.

The room’s main left and right hangs are Bose’s award-winning RoomMatch progressive directivity arrays (widely deployed throughout the park), with six asymmetrical full-range modules (one RM283505, three RM283510, an RM284520, and an RM286020), hung below four RM dual-15 subwoofers, while the center hang has four full-range modules (RM5510, RM5520, RM7020, and RM9020), under a pair of the same subs. Four stacks, each with two RMS218 subwoofers, are installed on the stage-front floor, with six RMU208 on front-fill duty and six more deployed as stage monitors.

Outdoor stage and fountain

On the outdoor stage overlooking the fountain in the park’s DeLaurentis Square, the light rig features Coemar automated fixtures (eight iSpot 575 EBs and 24 iWash 575 EBs), 40 Coemar ParLite Led RGBs, 12 ETC Source Four 36°, twelve 2kW Fresnels, and 40 RGB LED bars. Control is courtesy of an MA Lighting MA onPC console (command wing and fader wing) and two MA 4Port Node onPC parameter expansion units.

As is the case with the *Enigma* sound rig, the outdoor stage PA system is also used for airing the park’s official radio, Radio Dimensione Suono, and the soundtrack of the closing show. It features a main A/B system, with each hang comprising eight RoomMatch modules with various coverage patterns. Bottom-end beef is courtesy of A/B clusters of eight RMS215 subs, each in cardioid configuration (four in front and four behind), and eight RCF stage monitors are at performers’ disposal on stage.

As well as providing refreshment for spectators watching the shows, the fountain, created by the firm Watercube, of Marano Vicentino, Italy, is a highly varied spectacle in its own right. The company’s senior designer, Luca Candrele, explains, “The 95m [311.5'] x 13m [42.5'] fountain is divided into five zones with various effects: The center zone can create a water screen or a variable maze effect, the two adjacent areas are reflecting pools—all five can be used in this mode—and the two outermost zones feature tunnel and fog effects and programmable effects obtained with ninety ChoreoSwitch sequencing nozzles.”

Five hundred three IP68-rated Fontana Fountains’

XL300 all-in-one underwater RGB LED luminaires are installed in the fountain (180 for the fog effect and ChoreoSwitch nozzles, 160 for the tunnel effect, and 163 for the maze). The maze is formed by 650 nozzles with 0.5" inlet and 8mm bore; 82 nozzles with a 1" inlet and 12mm bore are used for each of the tunnels and 250 nozzles create the fog effect in each area.

Technical supervisor Michele Tomè gives an insight on the setup used to program and control the fountain’s effects: “We installed a Philips iPlayer 3 show storage-and-playback device with ColorPlay 3 light show authoring software. It controls all the LED fixtures in the fountain and, when enabled, runs simple lighting effects (not in sync with the music). When it is disabled, fixtures receive their commands from an ELC showSTORE XLAN DMX controller that can record and playback the DMX data of the cues in which lights, water effects, and music run in sync, programmed on a grandMA2 ultra-light console.”

An ELC dmXLAN node8 converts the Art-Net signal from the console and ShowStore to DMX; this signal is fed to the LED, PLC, and interactive nozzles. An Elation Professional VDM-2512R DMX merger enables control of the LED fixtures with the signal from the iPlayer3 or showSTORE.

A Mitsubishi GOT GT1675M-VTBA color touch screen HMI displays all the manual controls and timers for the various fountain devices (pumps, LED lighting, water treatment system, solenoid valves, etc.), and can be used to monitor in real time the status of all the fountain’s devices. All controls and automations can be remotely modified via Internet—for example, from the park’s offices.

Other attractions

Water also plays a key role in one of the park’s most popular attractions: the Aktium Super Splash, German manufacturer Mack Rides’ longest water ride, set in the ruins of Ancient Rome. Other key attractions feature thematic queue lines; after queuing in a huge spaceship, visitors board the Altair roller coaster by Swiss manufacturer Intamin, which is the roller coaster with the most inversions in Europe and features variations such as cobra roll, double corkscrew, and five heart rolls; the 60m (196.80' high) Erawan drop tower (also by Intamin) has a queue line running through a jungle before entering a giant elephant, where riders board the gondolas.

Darkmare is an indoor dark roller coaster by Intamin (based on Dante’s *Inferno*) with high-impact video content. The train flashes between no fewer than 17 screens set in the fiberglass rocks towering over the track. Twenty-seven projectors (Barco RLM-W 12 and XEED-WUX5000, Canon XEED-SX6000 and Optoma EH 7700 units) receive feeds from 26 Dataton WATCHPAX media servers; the ride, designed and realized by specialist projection company



Outdoor stage.

Unità C1, has its own hard-hitting sound system by Italian loudspeaker manufacturer K-array, with 26 KK52 and 12 KMT12 enclosures.

A projection-mapping project covers the facades of the two theatres looking out on to Piazza De Laurentis, each of which has three Barco HDX-W20 FLEX 20K projectors. The HD video content played out (via Dataton hardware and software) is the degree thesis on graphics in movies by a group of students from Rome's European Institute of Design.

Local "service" audio at the actual rides is almost all RCF (DP4 and BD42 speakers and HD horns powered by AM2080 amplifiers) with the exception of the water ride and the drop tower, where RCF units are integrated with Bose products.

Entertainment audio throughout the park is interconnected via CCW's "smart park" system and a network for real-time distribution of music and effects in the various areas, rides, outside stage, restaurants, and all roads and footpaths. This setup (developed for and with the park's

management by one of the project's contractors, Telecom Italia) includes 450 loudspeakers (subwoofers, mid/high range enclosures, full-range, and outdoor speakers), 63 power amps, 51 of which are networked, and 12 digital matrices.

The park's Bosch EVAC system covers all indoor areas and uses LC1, LH1, PBC 3018/01, LB1 UMx0E speakers, Plena LBB 1990/00 voice alarm controllers, and LBB 1938/10 and PNL-1P1000 amplifiers.

With such an impressive array of AV technology, CCW obviously has a team of experienced in-house technicians. Maurizio Sperandini, technical manager with Cinecittà Parchi SpA, which, as well as CCW, also operates Luneur Park, due to open in mid-2015, explains, "CCW has a 20-member technical staff responsible for the running and maintenance of the systems and work is already under way in the 1,200-sq.-m. Theater 5, which will host another feather in the park's bonnet—the world's largest flight simulator—due to be inaugurated in 2015." 🎧