

# Smashing Records —Again

Chimelong  
Ocean Kingdom  
breaks through  
more barriers  
with new  
5-D theater

by Michael  
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Nothing at Chimelong Ocean Kingdom—home to the world's largest aquarium, fastest wing coaster, biggest mainland China hotel, and an ultra high-resolution video canopy—is small, except perhaps for a few of the fish species on display. So it should come as no surprise that “5D Castle Theater,” the park's latest attraction, opening this summer, is setting a new standard for the industry.

The 1,000-plus seat “5D Castle Theater” is expected to break at least three Guinness World Records, according to park officials, including two records for the largest curved 3-D screen in the world, which measures at 1,500 square meters (4,921 square feet), or four times the size of screens in most 4-D cinemas. Chimelong also expects the cinema to set a record for the largest 4-D theater.

“This promises to be a world-class entertainment ride to rival any theme park attraction in the world,” says Arish Fyze, CEO and creative director of Prana Studios, which produced the cinema's first film, a 13-minute animated adventure story.

Fyze's boast is not to be taken lightly. His company has worked on the Academy Award-winning film “Life of Pi” (Best Visual Effects, 2013) and “It's Tough to Be a Bug,” a hugely popular Disney attraction.





The theater was designed so every seat in the house has the same view of Kaka Tiger and friends.



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## Thinking Big

"It is always Mr. Su's style to do something unique and world-class to distinguish our attractions from others," says Chimelong International Business General Manager Chris Ho, referring to the company's founder, Su Zhigang, a former meat butcher and restaurant owner who is now one of the most accomplished attractions industry professionals in Asia.

When Su envisioned Ocean Kingdom, the anchor and first peg of Chimelong's International Ocean Resort, he saw an icon that would awe visitors from the moment they arrived. While the attraction, now in its second year, is still working to gain an international audience, Chimelong's commitment to quality and style is clear.

In addition to hiring Hollywood's Prana Studios for media production, Chimelong engaged Austria's Kraftwerk Living Technologies (KLT) for the cinema's hardware, part of a strategy of working with renowned international vendors. KLT has built nearly 100 4-D theaters over the past 10 years.

"5D Castle Theater" took more than three years to plan and cost some ¥300 million (US\$50 million). KLT officials note the "exceptional dimension and incredible complexity" of the Chimelong theater presented special challenges, but expert on-site management and integration, led by Project Manager Werner Spiegel, was the key to success.

"We are careful about the investment, quality, and market target of new projects," adds Ho. "We want to deliver a final product that hits the market well."

Fyzee doesn't think that will be an issue in this case.

"From my extensive experience directing large-format rides for major theme parks around the world, I've learned audiences today expect ever greater excitement, comedy, and thrills from start to finish," he explains. "With this ride we have achieved all that and more, and apart from having a wonderful time following the antics of our heroes, audiences are going to be dazzled by the awe-inspiring effects and amazing stereoscopic experience."

The film, entitled "KaKa's Great Adventure," is based on Chimelong's original intellectual property and pro-

duced at 60 frames per second. The hero of the show is the park mascot, Kaka Tiger, who defends the Ocean and Polar Kingdoms after they're invaded by a Magma Monster. KaKa gets some help from his friend KiKi, an ocean genie, and the audience. Popular television star Li Rui, known as the village chief in the "Dad, Where Are We Going?" program, provides the voiceover.

## Record-Setting Screen and Groundbreaking Seats

While the 180-degree, 87-meter-long (285-foot-long), 18-meter-high (59-foot-high) screen might attract the most attention, the cinema has a number of other technical features worth highlighting, starting with the projectors. "5D Castle Theater" uses a dozen Christie three-chip, 4K projectors with a resolution of 10,344 x 2120 pixels. Having so many projectors, though, necessitated a state-of-the-art automatic alignment system. The unique size and curvature of Chimelong's screen also meant the projectors' short throw lenses and deflection mirror system had to be custom made; there were no existing lenses on the market with the correct curvature radius.

The complete set of 5-D equipment, as well as the screen, was imported, including dynamic seats from Austria, immersive 360-degree audio by Meyer Sound, and lifelike animatronics from the United States. The LED lighting, though, is the work of Chinese design master Sha Xiaolan, who was the chief lighting designer for the opening and closing ceremonies of the Beijing Olympic Games.

"This theater is not comparable with any existing visitor attraction in the world," says KLT founder and CEO Manfred Meier. "The size of the room, the size of the screen, the predetermined number of visitors per show—all these factors have been a real challenge for the technical design of the attraction. The goal was to guarantee every single visitor could experience the same overwhelming and stunning 5-D adventure no matter where they are placed within the auditorium."

Chimelong's theater is the first to use a new generation of KLT 4D SFX Motion Seats, which feature special-effect

armrests that blast water, blow wind, and have scents, strobe lights, and colored LED lighting.

“Compared to previous installations, this new approach guarantees a much better performance, as the special effects are no longer coming from the ceiling, railings, or the seat’s backside,” explains Meier. “Especially for large theaters, like the one at Ocean Kingdom, this is of crucial importance.

This marks a real breakthrough in the industry for the efficient and sustainable operation of multi-dimensional theaters.”

Meier adds that there are precise controls to adjust the armrest effects, which also feature a “unique seat occupancy sensor,” so unoccupied seat units can be deactivated.

These third-generation, Austrian-made seats also have many of the effects 4-D filmgoers have come to expect. They move up, down, forward, and back; they also roll from side to side, and swing from left to right. They have in-seat stereo, leg ticklers, pokers, water jets, and air vents. And, of course, the theater has special effects like fog, rain,



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smoke, scenic lighting, and strobe lights.

The fifth dimension consists of an animatronic parrot-shaped plane that appears from a waft of mist and flies across the auditorium, carrying Chimelong mascots Kaka and Kiki, who wink and wave to the crowd. The plane was made by Advanced Animation, while the lighting and mist effects were provided by KLT.

The Guinness World Records for “5D Castle Theater” are not the first for Chimelong. Ocean Kingdom’s aquarium has set five records for being the largest aquarium in terms of tank size, water volume, acrylic panel, aquarium window, and viewing dome.

The 5-D theater is just the latest step in Chimelong’s expansion. Next up: an indoor family entertainment zone and puppet show with special effects, both now in the design phase, followed by a Wild Kingdom park further down the line. ■

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