

TAKING THE PLUNGE

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It stands to reason that the popular 2003 Disney-Pixar animated film *Finding Nemo* would find its way into the Disney theme parks. First came EPCOT's *The Seas With Nemo and Friends*, a ride-through attraction — with guests on clam-mobiles — at Disney World in Orlando. In January 2007, *Finding Nemo-The Musical* officially opened in the recently enclosed and air-conditioned 1,500-seat Theater In the Wild, located in Disney World's Animal Kingdom. This production represents the first time that Disney has created a stage musical from a non-musical film.



Finding Nemo-The Musical also raises the benchmark for this type of theme park attraction, something that has been anticipated since Anne Hamburger — formerly the producer of *En Garde Arts* in New York — became executive vice president of Disney Creative Entertainment. She has brought with her top-notch theatrical talent such as Peter Brosius, artistic director of The Children's Theatre Company of Minneapolis, who directed this stage version of *Finding Nemo*, which features original songs by Tony Award-winning *Avenue Q* co-composer/creator Robert Lopez and Kristen Anderson-Lopez, co-creator of the a cappella musical *Along the Way*.

The 30-minute musical follows the plot of the film and features Marlin, an overprotective father fish who has to venture through the dangers of the deep to rescue his curious son, Nemo, who is held captive in a fish tank in a dentist's office. The underwater characters are portrayed by actor/puppeteers — a few fly, thanks to *Flying By Foy* — and an array of colorful puppets by Michael Curry. The design team includes set designer GW "Skip" Mercier, lighting designer Beverly Emmons, and projection designer Jan Hartley.

"Mercier's scenic elements were fabricated, painted, and automated by Hudson Scenic Studios in Yonkers, New York," notes Larry Sonn, technical director for Walt Disney Entertainment. "The stage deck is over 6,000-sq.ft., or as big as three typical Broadway musicals, yet it is still very crowded backstage. The scenery is larger than life due to the size of the stage and the size of the audience. All of the lighting and special effects on the scenic wagons are controlled by a City Theatrical WDS wireless dimming system. "This allows the show ultimate flexibility for programming scenes," he notes.

Creating An Underwater World

"The idea is for the audience to believe it's all happening under water," says Emmons. As a result, the rays of light move continually in the air as if under water, with the reflection and refraction of light as if shining through the sea, creating shafts of light that hit the ocean floor like the rays of the sun. Because the show also has a non-stop cascade of projected images, Emmons opted to use primarily sidelight. "It shoots straight across and doesn't hit the floor," she says, noting that she avoided adding light to the surfaces of the set as they would all be used as projection surfaces. The sidelight is provided by ETC Source Four ellipsoidals, some of which have Wybron Coloram scrollers and are shuttered for a tight beam.

To highlight the puppets in their colorful underwater environment, Emmons used less intensity at the feet of the puppeteers and more brightness near the puppets themselves. There are also Lycian Midget HP followspots angled to hit the heads and shoulders of some of the actors and their puppets. The followspots, with seats for the operators, are hung from a catwalk over the audience. "They are at a high-enough angle to miss the back wall," says Emmons.

The theme park schedule called for the light plot to be completed in February 2006, yet Emmons did not choose her color palette until last June. "At that point, I called Jan Hartley, and she said go ahead; she could adjust the colors in her projections." Emmons describes her palette as "all ranges of blue, from blue with red to blue with green," plus a lot of red for the scene with a threatening shark.

Much of the gear was already in the theatre, having been used for the production of *Tarzan Rocks*. The automated fixtures include High End Studio Spot 575s and High End Studio Spot Zoom units, as well as Martin MAC 2000 Performance and Martin MAC 600 luminaires. Three of the MAC 2000s sit on a "sled," which Emmons describes as "a sliding platform that sashes back and forth over the stage to create an increased sense of motion." Built by Hudson Scenic, the sled is hung from a track on two truss units and fed by extending cables. The motion is driven by scenic automation controls provided by Hudson Scenic.

An additional five MAC 2000s include three on the center line on the second electric, one on the same plane stage left, and one further upstage as backlight. The High End fixtures are on ladders that fly in and out (on stage-right and stage-left) for automated sidelight. "The light moves all the time," says Emmons, who created movement using gobos that spread over the entire stage or narrow shafts of light pulsating in diameter.

A large submarine, one of the largest set pieces, and a series of translucent Lexan bubbles in the portal surrounding the stage are accented with a total of 30 Color Kinetics ColorBlast 6 units to enliven the action in the bubbles, while 24 Color Kinetics iColor Cove strips are used in the wagon that carries the sea anemone nest where Nemo is born. "The LEDs are used inside this set piece to uplight it, adding kinetic energy and color bringing Nemo to life," notes Sonn.

Additional LEDs — SuperVision white LED arrays — are used to light the downstage wave walls on the set, which are made of translucent Lexan and covered with RP vinyl and backlit with the LEDs that create wave patterns. "The LEDs make a ripple pattern in some scenes, most notably the 'Just Keep Swimming' song," notes Emmons. Dimmable Deon LED rope light is integrated into a runway that leads from the stage into the audience and along the front of the stage.

To get a handle on the look of the underwater world, Emmons visited the fish reef environments at the Natural History Museum, where videos show the majesty of the oceans. "I loved the videos," she says. "They show every color found in sunlight as it refracts in the water — from purple, magenta, and gold to blues and greens.

"The creative process in the theme park environment is different than on Broadway, especially in terms of time," says Emmons, who made her theme park debut with *Nemo*. Helping her navigate these waters was Jason Badger, who programmed the Flying Pig Systems Wholehog 2 console. "He is one of the greatest programmers, and he grew up at Disney in California," Emmons notes. They spent two months in the theatre for tech and focusing, while two separate casts learned the show. Emmons also credits the director for his role in the success of the show. "Peter Brosius is the real hero," she says. "He made a beautiful, real theatre experience."

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There He Is!

Nemo's dad is not the only one looking for him. In the half-hour seating period before the show starts, projected visions of Nemo dart through the Lexan bubbles on the set to the delight of the kids in the audience, who start screaming, "There he is," every time Nemo flashes by. There are six Sanyo PLC-XF41 XGA 7,000-lumen and two Sanyo PLC-XF45 XGA 10,000-lumen projectors placed upstage and used for rear projection, including the various images seen in the bubbles, which are coated on the interior with Screen Goo to help capture light. "The images in the bubbles help the people who are seated further back get a bigger cinematographic picture," says Hartley.

She had worked with the set designer in the past on projects where they had successfully created video environments, which was also their goal. To create her part of Nemo's underwater habitat, Hartley went to Portland, OR, to "meet" the puppets created by Michael Curry. She took along Alice Brooks, a DP based in Los Angeles, and they shot green-screen sequences with the puppets. "We did this so I could create the images around them," says Hartley, although the green was sometimes too close to the paint on the puppets, in which case she shot them against black. The 20'x20' screens she used were actually too small for some of the puppets, such as the largest jellyfish, which puts the size of the puppets in perspective.

Hartley also went to Hawaii for a one-week underwater shoot with underwater DP Ron Condon. "There was great dappling of light under the water. I used some of the footage for effects," she says. The images were created using Sony Vegas nonlinear editing software on a PC, creating loops of the Hawaii and green-screen footage, as well as clips of waves and underwater environments. Hartley even went to see the *Nemo* attraction at EPCOT and shot and matted in some of the vibrant red, green, and blue scenic elements, making them look as if they were moving — via Dataton's Watchout — and shot a sea anemone in a closed position and made still frames from the video to make it look like it was moving behind the puppeteers. Then in January, right before the official opening, she went back to Orlando to add additional effects.

"There is video all the time during the show," she says. "The moment with the least video is the scene with the fish tank in the dentist's office." The idea was to create an immersive video environment to frame the puppets but not imitate the look of the original movie. To project this video environment, in addition to



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the rear projection, there are also eight Sanyo PLC-XF45 XGA 10,000-lumen projectors placed at FOH (over the central cross aisle). "They are cross-projecting to fill in the portals and edges of the stage," explains Hartley. "I felt my job was to create a sense of motion and never be in a static environment since the ocean is never still. Most of what you see is primarily on the portals and the scenery."

Hartley found that working in the theme park environment was not all that different from designing an industrial for a corporate client. "The Disney people were extremely supportive," she says. "And it's great that Anne Hamburger is expanding the talent pool of designers and directors." The production values in *Finding Nemo-The Musical* certainly point toward more high-tech shows in the theme park arena, at least at Disney, as their popular animated films find their way to the stage.

Finding Nemo-The Musical

LIGHTING AND PROJECTION GEAR:

13 High End Studio Spot 575
13 High End Studio Spot Zoom
12 Martin MAC 2000 Performance
4 Martin MAC 600
16 ETC Source Four 10° Ellipsoidal
106 ETC Source Four 19° Ellipsoidal
82 ETC Source Four 26° Ellipsoidal
30 ETC Source Four 36° Ellipsoidal
10 ETC Source Four 50° Ellipsoidal
2 ETC Source Four 90° Ellipsoidal
8 ETC Source Four Par VN5P
7 ETC Source Four PAR NSP
8 ETC Source Four PAR MFL
4 ETC Source Four Par WFL
14 Three-Cell Sky Cyc
33 Wybron Coloram 7.5" Scrollers
100 PAR64
28 ACL
6 PAR64 Striplight
3 Lycian Midget HP Followspot
30 Color Kinetics ColorBlast 6
24 Color Kinetics iColor Cove
6 Rosco XFX Water Projector
1 Flying Pig Systems Wholehog 2 Console

FRONT OF HOUSE PROJECTION:

8 Sanyo PLC-XF45 XGA 10,000 Lumens

UPSTAGE PROJECTORS (REAR PROJECTION):

2 Sanyo PLC-XF45 XGA 10,000 Lumens

BUBBLE WALL:

6 Sanyo PLC-XF41 XGA 7,000 Lumens

PROJECTION LENS:

Sanyo LNS-W01Z Short-throw fixed lens with a throw ratio of 1.2:1
Sanyo LNS-W02Z Short-throw zoom lens with a throw ratio of 1.35 -1.8:1

PROJECTION RIGGING AND HARDWARE:

Chief Manufacturing:

VCM-47E ceiling mount hung with the following parts:

CMA-003 1.5" NPT pipe 36" extension column CMA-006009 adjustable 1.5" NPT pipe extension column (6' to 9') CMA-351 0-330° swivel CMA-372 Unistrut Adaptor

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