


The Road to
Walhalla

Das Rheingold commences the Metropolitan Opera's stunning new *Ring Cycle* By: David Barbour



he opera world loves a controversial new production, and this season the Metropolitan Opera has given it a real beauty in *Das Rheingold*, the opener in its new staging of Wagner's Ring Cycle. All the elements were in place for a potential scandal: An internationally famous director, an ambitious set design that tested the limits of the venue, interactive projections, and a staging that makes use of acrobatic feats and body doubles. Oh, and a budget that reportedly reached \$16 million dollars.

Usually, the pre-opening publicity for a new Met Opera production focuses first on the stars, secondly on the director, and, if there is any time or interest left, on the production. In the case of the Ring Cycle, the design concept became a major talking point months before the curtain rose on *Das Rheingold*. The *New York Times* sent a reporter to cover the load-in. The *New York Post* offered a detailed guide to the set and how it functions. As the premiere approached, the level of chatter became deafening. Many questions lingered: In this economy, could the Met afford it? Would the design overwhelm the opera? Would

the set function as required? And how would the worldwide audience of Wagner fans—an eccentric lot not known for being shy about their opinions—react?

The answers are not yet final—there is no way to judge the whole cycle until all four operas have been staged—but the early signs are promising. *Das Rheingold* opened to raves for the cast and James Levine's handling of the score. The production garnered a broad range of opinions, most of them ranging from respectful to favorable. At the very least, everyone seems to agree that it is a fascinating combination of complex technology and aesthetic simplicity, a design that, above all, means to serve Wagner's sprawling epic drama of gods and humans locked in a struggle over a magic ring—a struggle that will mark the end of one world and the beginning of another.

According to Robert Lepage, who is staging the operas at the Met, "The Ring is a revolutionary work of art. You're not the same person once you've done it." By the time Wagner's cycle has been completed, one has the feeling that the Metropolitan Opera may never be the same.



Above: The entrance into Valhalla. Previous spread: Wotan and Loge descend into Nibelheim. Boucher is especially proud of this scene, which he lit with one unit shining through the doorway.

The Valhalla machine

The lion's share of attention has been focused on Carl Fillion's set, or what the *Times*, in its feature story, called "The Valhalla machine." Interestingly, it is meant to serve all four operas. It that seems like an unworkable idea, rest assured that this is no ordinary set. As described by Daniel J. Wakin in the *Times*, it "consists of two 26'-tall towers holding an axis, which can move up and down driven by hydraulics. Twenty-four planks, actually in the rough form of severely elongated triangles, are attached to the axis at their thickest point, like seesaws. When at rest, they create a platform that fills out most of the stage. But the planks can revolve around the axis together or independently, producing myriad shapes, and they serve as both stage architecture

and a canvas for projections. The planks, driven by an old-fashioned spindle system, ripple like water or form giant hands for Fasolt and Fafner [the giants] to stand on."

The figures are impressive: Each of the 24 planks is 2' wide, 29' long, and weighs 726lbs. The axis is 5' wide. The planks can revolve a full 360°. The set, which sits directly upstage of the deck where most of the action takes place, changes position every five to ten minutes throughout *Das Rheingold*. The wall rears upward, with a slight buckle in the middle, to make the underwater home of the Rhinemaidens, who are rigged to fly in front of their watery home. When Wotan, ruler of the gods, confronts the giants Fasolt and Fafner—the latter have built Valhalla as home for the gods and they want Freia,

Wotan's sister-in-law, as payment—the wall breaks into five parts. The left, right, and middle sections lean back at about a 45° angle. Between them are formed two platforms, lowered like drawbridges, on which the giants appear. When Wotan, and Loge, his servant, head to Nibelheim in order to obtain the ring that Alberich, the dwarf, has stolen from the Rhinemaidens, the wall rises up and spirals around, creating a winding pathway that hovers over the deck. In this configuration, the set, rising up even further, provides the ceiling for Nibelheim, where Alberich, drawing on the power of the ring, has enslaved a race of dwarves. At the opera's end, when the gods enter their new home by way of a rainbow bridge, the wall rises up, and the middle portion provides a walkway,



Another shot of the rainbow bridge to Valhalla. The color effects on the upstage cyc are generated by ETC Selador Vivid LED units.

shimmering with color, that provides an entry point into Valhalla.

The setting has a stark and monumental quality that makes it more than suitable for a bleak and tragic drama about the lust for power. Lepage, in an interview on the Metropolitan Opera website, says that he drew inspiration for the production from a trip to Iceland, which he describes as “a land of fire and ice and weird phenomena that you don’t see anywhere else. It’s like another planet. And it’s a great place to build a Valhalla. Because there are almost no trees or vegetation, you see the weather formations for days and days in advance...It’s a place where nature speaks to you, so it gives you a plethora of ideas for image, set design, music, sound effects.”

This is, of course, a Robert Lepage

production; he also staged *The Damnation of Faust* at the Met two seasons ago, in a production that made extensive use of interactive projections. And readers of this magazine will recall him as the director of the Cirque du Soleil spectacle *KÀ*, which also features interactive projections and a stage that is a remarkable feat of engineering. Speaking specifically about the set, Lepage says, “We were guided by Wagner’s use of leitmotifs. He positions them in different relationships; sometimes he uses the same motif that he plays backwards, or in major or minor, so the motifs are cousins. It was important that we create a theatre machine that would be similarly versatile—a set that had its own life and could actually go through different metamorphoses but, at the same time,

feel very organic. Very early on, we decided to create a spine to the set that allows us to move things and articulate things. So the set is actually not only illustrating some of the ideas in the *Ring*, but it’s also literally supporting the characters and the ideas...it was important for us that the set be very nimble, very flexible, very adaptable, and alive, so that it not only moves, but it also breathes.

Speaking of the design process, Fillion says, “From the beginning, we had the idea of the single set. But we weren’t sure if it was a good idea, because, after all, we are talking about 16 hours of music. It could be difficult to keep the audience’s interest over that amount of time. This was the big concern, an interesting challenge to try, at least.”

Fillion, a longtime Lepage collabo-



The Rhinemaidens.

rator, adds, “The idea of the planks moving on the axis was there from the beginning of the project, although it changed somewhat during the process of design. We always work with prototypes in a laboratory; this is how we have worked for many years. You cannot just draw it, build it, and put it on a stage. You have to work with prototypes and models, to do the research to know if you’re putting on something that’s completely wrong.” He adds that the research paid off: “There are so many possibilities with this set, it is incredible.”

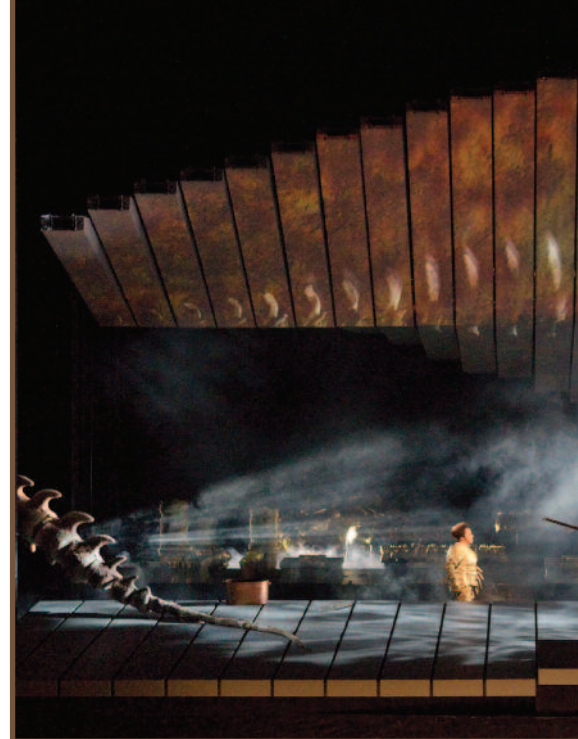
Not that the set didn’t pose a few problems along the way. As was reported in the *Times* last June, structural engineers had concluded that the 45-ton set might cause the floor under the stage to collapse. To avoid this, the Met hired Koenig Iron Works, based in Long Island City, New York to install three 65’ girders beneath the stage, an effort that the *Times* called “a feat of delicate engineering involving thousands of pounds of steel that counts as a permanent structural change to the opera house, the most extensive work yet to prepare for a new production there.”

Also, according to the *Times*, “Koenig’s president, Barry Leistner, said the reinforcement was tough, performed in cramped spaces and

under a tight deadline. The 65’ I-beams, the sort used to build high-rises, were chopped into smaller pieces, shoved through holes in walls of the rooms below the stage, and spliced together. They had to be passed over gas, electric, water, and telephone lines that traveled below the ceilings. Each end of the beams was attached to a load-bearing wall.”

The set was built by Scène Éthique, the Montreal-base scenic fabrication company. (This in itself is rather unusual, as the Met normally builds its own sets.) And, of course, it comes with its own custom automation system. “There are many different techniques that we use to move the set,” says Fillion. “There are hydraulics to lift the axis and produce the rotation. We have a programmable brake system to stop it at precise positions set by the computer. The power unit that runs the set is located under the stage. They had to organize a space for it, because it is very heavy and you cannot move it.”

The hydraulic system is run by one operator, but, Fillion adds, the management of the machine is a complex, labor-intensive job: “You need many technicians under the apron to load in the movements, and also behind the set, clipping ropes



In Nibelheim, Alberich transforms himself into a dragon.

and performing other tasks.” Of course, he notes, there are many E-stops built in the set, which can be operated by the performers. “There are other possibilities before the E-stop,” he adds. “You can hit the stop button the computer and it stops the action until you hit ‘play’ again.”

A world of elements

Projections constitute a major aspect of the design, and, in fact, they break down into two different categories: traditional and interactive. The interactive images respond to the action on stage. When Alberich lands at the bottom of the Rhine, the pebbles that make up the riverbed shift around at the touch of his feet. Similarly, there are bubbles emanating from each Rhinemaiden’s mouth. Loge travels with a pool of fire beneath him that also reacts to the touch of his feet.

Boris Firquet, another longtime Lepage collaborator, designed the traditional projections and provided overall creative direction for the opera’s visual imagery, much of which has an elemental nature. Often, cloud formations pass across the set. When the action moves to Nibelheim, the underside of the wall, in its spiral configuration, is covered with angry red and copper rock formations. For the entrance to



The gods confront Fasolt and Fafner.

Valhalla at the end, the wall is transformed into a cliffside effect.

Firquet says he creates his images by combining elements of various pictures. “My approach is more like painting,” he says. “I live in the country, and I roam around taking photos and mashing them together to create an organic feel.” The latter point is especially important to him: “I don’t want the images to have a video-game look,” he adds.

The interactive images are another matter altogether. Roger Parent, president of the firm Realisations.net, says he developed “a custom system based on interactive technology called SENSEI.” As he points out, these constitute a very different notion of projected images. “You’ve seen the pebbles in the Rhine Maidens scene,” he says. “We’re not playing a video of pebbles. Although we’re using a video projector, we’re not putting video inside it.” Instead, he says, the pebbles “are computer-generated particles that are waiting to be triggered by performers on stage—like when Wotan turns his hammer and the clouds turn with it. These particle images have behaviors that are waiting to be activated. Because they’re triggered by motion detection devices, they’re ready to be influenced by an actor’s voice or

gestures, and can follow the 24 planks of the moving set that serve as screens. Our system detects movement and sounds, generates images, distorts them as the scenery rotates, and assigns images to the appropriate video projectors, all in real time.”

The projections are, by and large, subtly worked into the stage pictures; as a result, they are meant to add bits of telling detail, not to draw attention to themselves. “We worked hard not to upstage anything,” Firquet says. “What’s important is the music and the singing.” Nevertheless, getting proper coverage of the large set isn’t easy, he adds. “It’s kind of tricky, because certain angles are hard to reach. The set is also hard to light; it’s mostly lit from the back. We worked on maquettes in the workshop, using 1:5 models, but it was really hard to predict how it would look at the Met. Really, it was a process of trial and error, finding the right approach.”

There are ten projectors: seven Panasonic 10K D-10000U units with a 4:3 aspect and two Christie 30K Roadie and one 35K Roadie, each with a 16:9 aspect. “There are three stacked together in the dome of the auditorium,” says Firquet, “and seven on the parterre level.” The media

server system involves a custom software written by the designer, using the popular software Isadora as its basis. The projection system is controlled by a stand-alone grandMA2 console.

In this situation, with the set constantly changing its shape, dealing with the keystoning of the images was a major task. “It was kind of crazy,” says Firquet. “When you have ten projectors on a moving set, you have all sorts of crazy calculations. Also, you have encoders in the set sending data to the computers; it involves a lot of engineering that I don’t really understand. My computers send signals to the image composing system, which is then fed to a distortion system that handles the mapping of the image.”

“It’s this idea of putting technology to the service of the music and the choreography and the theatrical presence of the performers,” says Lepage in his Metropolitan Opera interview. “We’re trying to braid together a lot of elements. For instance, at the top of *Die Walküre* [the next production in the cycle], you try to follow all the motifs that are in that three-minute prelude and the action and energy that it suggests. In our production, we ask people to run in through the



Loge has LED units built into his costume (above, left). He also moves in a pool of fire; the effect is one of the many interactive projections. In this case, it is altered by the movement of his feet.



forest, and we see the forest being formed. We even see the snowstorm, as it's actually being produced by the music coming from the pit. A bunch of pixels and particles are there, and the wind twirls them and moves them around, all according to the music. It's not prerecorded; it's because of the swelling that comes from the orchestra."

Colors of the gods

Etienne Boucher was charged with creating a lighting design that dealt with a malleable environment that is informed by large-scale projections. Furthermore, he had to deal with the relatively short cueing time allowed for in the Met's production process. "As soon as I realized how short the time would be for me to create everything, I went to Proluxon, a studio in Montreal, to work on previsualization," he says. "Using WYSIWYG, I was able to play with my ideas for nearly a year before we got on the set last August. At that point, we had two weeks to do all the cues for *Das Rheingold* and *Die Walküre*. It was a challenge, but Robert Lepage and I have worked together for many years, and it was easy for us to exchange our ideas."

Overall, the designer relies heavily on sidelight and diagonal backlight as a way of dealing with the set and projections. "At the Met, you have to place the projection units really far away from the stages," he says. "This reduces their output, so I have to be very careful with the lighting. Sometimes it was tough for me, because I wanted to have more punch on certain effects." Because the Met's repertory rig was of little use in this situation, Boucher had installed a set of 39 automated units, used not for big sweeping effects but because they could be constantly refocused. These units consist of Philips Vari*Lite VL3500s—in both Spot and Wash versions. "All of the backlight is made by the Wash units," he says. "The top light and side light in front of the axis is provided by the Spot units." Also added to the light plot was a series of ETC Selador Vivid LED striplights, which provide the colorful effects seen on the cyc located just upstage of the set.

In one of the production's more unusual aspects, some characters carry LED units in their hands or have them built into their costumes. These were developed for Boucher by

Philippe Jean, of the Montreal-based firm Ateliers Numeriques. The units are all custom-made, notes Jean: "Everything was handcrafted; I designed the electronics to find something that could be highly configurable. They're all based on RGBA LEDs. Each costume can contain up to 12 units, each with five colors; one single costume has 60 DMX channels." They are controlled via wireless DMX, using components from New York-based City Theatrical.

"In each costume is the equivalent of a small light board," says Jean. "I used tiny microcontrollers, using DMX to control all the channels. We use one channel in record mode to record all the channels in a cue, then we use playback mode to execute the cue. The controller box is about 6" by 6" by 1", because you need batteries and, of course, the LED units."

Building these units into the costumes was not easily achieved, he adds: "There were many problems. Finding the right battery was a big issue—one that was not too heavy but which gave us enough power to do what we wanted to do. You're basically integrating something that's meant to be in a hard box somewhere, and you're putting it in a costume, which is a supple, moving piece of work. That integration was a bit of a challenge. And when you try to do it an opera house like the Met, you have to deal with many different departments—costumes, wardrobe, electrics. They don't normally have to meet with each other. It was an interesting challenge to blend all those departments together. For them, it was a different way of doing things"

Boucher says his efforts at integrating lighting effects into the production also proved challenging at times. "I created a gold reflection for the moment when Alberich slides down toward the gold at the bottom of the Rhine. I used a Rosco X-Effects projector to make a water effect, then added a goldish color to it, but there was so little room under

the apron that I couldn't use more than one unit; my goal was to have a big punch of gold reflections, but all I could use was that one spot." He adds, "One cue I'm really proud of is when the acrobats [representing Wotan and Loge] move across the stage to Nibelheim. [See pages 52-53.] It's a nice moment for me, because I lit the entire scene using one spot through the doorway." I

The lighting is controlled by a grandMA2 console, running grandMA1 software; it triggers the grandMA2 that controls the video. "For me," says Boucher, "it was a nice challenge, given the moving set and the video. My challenge was to

light it properly, but also to create some ambiance and follow the projections. And, working at the Met, you have to do it quickly." He will get additional cueing time for *Die Walküre* in March, but, he says, "In September, the set was on stage all week long. In March, there will be a new show each evening. We will rehearse in the morning, then strike the set for that evening's show. It will be another ballgame at that point."

Crossing the bridge

The favorable reviews for *Das Rheingold* noted that Lepage's production was not a spectacle for its own sake. Neither is it the kind of

radical reinterpretation one sees in many European opera houses—which usually raises the hackles of conservative Met audiences. It stands in contrast to the Met's last *Ring Cycle*, a far more literal interpretation directed by Otto Schenk and designed by Gunther Schneider-Siemssen. In is theatricality, its technological innovation, and its straightforward storytelling, Lepage's production reveals much about the Met under the guidance of Peter Gelb, who, as an artistic director, has a remarkable ability to balance tradition and innovation. We'll report back after *Die Walküre* opens, to see how the design is used. 📡