VISUAL FRICTIONS

Digital scenography and the mimetic aporia of Richard Wagner’s Ring Cycle

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Abstract
This article explores the visual friction between the concealment of technology and the need to stage mimetic scenes in Richard Wagner's Der Ring des Nibelungen. The article relies on the critical reception of the Wagnerian Gesamtkunstwerk in musicology, as well as in media, performance, and theatre studies. Drawing on productions and commentaries critical of the iconic Gesamtkunstwerk’s attempted retrieval of a lost natural state, the article examines correlations between phantasmagoria, special effects, movement detection technology, and the interactive devices of multimedia and digital scenography. These correlations are framed within a theoretical methodology of historical discourse and media archaeologies. Three specific productions of the Ring are discussed, namely the inaugural and centenary productions at the Bayreuth Festspielhaus, as well as Robert Lepage’s production for the Metropolitan Opera of New York in 2010–2012.

Keywords: digital scenography; Gesamtkunstwerk; Robert Lepage; mimesis; phantasmagoria; The Ring; Tarnhelm; Wagner

In the last decade, an increasing number of opera productions have not only relied on digital technology to transmit content outside the hall but also to create (parts of) sets and decors. While the involvement of digital media in scenography varies from one opera house and from one production to the next, the practice has developed to the point that critics have shown concern with opera’s saturation with Hollywood-style special effects. Such equations fail to consider, however, the theatrical conditions in which this media technology is deployed. Perhaps the most controversial debate over these problems in the last five years converged around Robert Lepage’s production of Richard Wagner’s cycle Der Ring des Nibelungen for the Metropolitan Opera of New York, premiered between 2010 and 2012.1 Of course, Lepage does not stand apart: productions of Wagner’s music dramas have long been associated with developments in stage technology and media, visual

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elements of which have caused considerable friction over the past century and a half. This article first examines this theatrical tradition of technological innovation in regards to Wagner’s works. The arguments presented here draw upon discourse analysis in Michéle Foucault’s *The Order of Things*, the scenographic history of Wagner’s *Ring*, insights from media archaeology, and the critique of the *Gesamtkunstwerk* as phantasmagoria, before turning to Lepage’s production. In conclusion, it compares the rendering visible of sonic gestures through the interactive digital technology of his production with analogue technology described in Sean Michael’s novel, *Us Conductors*.

**THE RING’S MIMETIC APORIA**

In comparison with the ever-present Ring and the crucial importance of the sword Nothung to the plot, the Tarnhelm is not as conspicuous in the Ring Cycle. Yet the magic helmet at once protects the Ring and brings about its end, both in the sense of the ring as a material object in the narrative and of the cycle’s plot. It only briefly makes an appearance—or rather, disappearance—in the third scene of *Das Rheingold*, vanishes in *Die Walküre*, then returns to play a cameo role in *Siegfried*, before finally instigating a series of mistaken identities and double-entendres in *Götterdämmerung*. The helmet drives the plot because its apparitions coincide with transfers of power. Indeed, Alberich orders his brother Mime to wield the helmet in order to protect his ownership of the Ring, as the means to mine and transform more gold. Under the helmet, Alberich can disappear, immediately travel to distant places, and change into any human or animal form. The helmet’s potential for omnipresence is the prototype of a mass-surveillance device, which enforces mass labour and makes its owner omnipotent. When Wotan travels to Nibelheim with Loge to steal the hoard of gold in order to pay the giants for building Valhalla, he only has a vague idea of the Ring’s power and even less knowledge of the Tarnhelm. He quickly realizes, however, the threat they pose to the order over which he presides. In order to contain this threat, Wotan and Loge trick Alberich into using the Tarnhelm to their advantage. Appealing to Alberich’s pride, they make him demonstrate his newly gained powers by turning into a dragon and then into a toad. This last metamorphosis allows the cunning pair to capture Alberich and rob him of his treasures.

Beyond facilitating the transfer of the gold and its means of production, there is definitely a poetic boast about the Tarnhelm. The capacity to present the immense and the minuscule should, after all, be a fundamental possibility of Wagner’s pretensions to a total work of art. And yet, the appearance of the dragon, and its return in the second act of *Siegfried*, has always defied the limits of scenography. One of Wagner’s collaborators on the first staging of *The Ring* had unsuccessfully advised him to keep the battle with the dragon off-stage, and its lack of verisimilitude has been a problem ever since. Part of the problem with the staging of the Tarnhelm’s special effects comes from the difficulty of realizing the helmet’s mimetic potential to a convincing degree of realism. This is made all the more difficult as the affects these transformations inspire are abundantly suggested to the imagination through the music. The problem of realistic transformations under the Tarnhelm recedes later in the Cycle, when it is used to transform heroes into humans instead of anthropomorphic gods and goblins into animals.

The last (dis)appearance of the Tarnhelm occurs at the cusps of the first and second acts of *Götterdämmerung*. As these scenes tend to overindulge in deceit and mistaken identities for purposes of quid pro quos, a quick summary of the action should help steer the reader through this confusion. Gunther, king of the Gibichung, is wealthy and powerful, but does not have a wife. Hagen (his half-brother through their mother, but whose father is Alberich) convinces Gunther that Brünnhilde (Siegfried’s true love) would make the perfect trophy. To realize this scheme, Gunther’s sister, Gutrune, gives Siegfried a magic potion that makes him forget previous loves and fall in love with her:

> Träte nun Siegfried ein, 
> Genöss’ er des würzigen Trank’s, 
> daß vor dir en Weib er ersah, 
> daß je ein Weib ihm genaht – 
> vergessen müßt’ er dess’ ganz.

(If Siegfried were to enter now and taste the herbal drink, he’d be forced to forget that he’d seen a woman before you, that a woman had ever come near him.)

Incidentally, when Hagen speaks of the potion, Wagner also evokes the Tarnhelm motif. To gain
Gunther’s consent to marry Gutrune, Siegfried agrees to fetch Brünnhilde for him. He uses the magic helmet to take Gunther’s form after passing through the fire surrounding her rock. Once Brünnhilde is on the boat back to the land of the Gibichung, Siegfried leaves her with the real Gunther using the Tarnhelm to instantly travel back to Gutrune. Hagen’s scheme relies on Gunther’s natural lust and on Siegfried’s potion-induced lust to transfer their desire for ownership into the imaginary world of sexual relations, which would leave Hagen with real ownership of the Ring. In other words, nothing is what it appears to be in Götterdämmerung until Brünnhilde steps in to put things right. The Tarnhelm therefore opens a space of disappearances and apparitions that blur the boundaries of knowledge and ignorance, and ultimately enable revolutions in the distribution of power and wealth.

All of these points recall Michel Foucault’s early work on the archaeology of knowledge in The Order of Things. Although the reader might have in mind Foucault’s later work on the panopticon, especially in regards to the Nibelheim scene, I want to further build upon this comparison through Foucault’s reading of Velazquez’s painting, Las Meninas (Photo 1). After many pages of description in which he follows the lines and the gazes of the painting’s protagonists, Foucault finally comes to the conclusion that its composition, its ordering of things and people, is organized according to an almost absent focus, a nearly blind spot, which is only revealed through a reflection in a small blurry mirror. Through this visual subterfuge, Velazquez discreetly makes known how the sovereigns’ absence makes them the keystone of the design; their gaze orders the arrangement of things and the movements of people, as well as their (in)visibility. One finds a similar vanishing yet ordering point within the tetralogy: the displacement of this unseen gaze, as figured by the Tarnhelm, leads to the confrontation of different orders of knowledge (or episteme), to ethical dilemmas, and tragic outcomes.

Take, for example, the trick Wotan and Loge play on Alberich. They must first conceal from him their intentions in order to steal the seat of his power. Within the aesthetics of the Gesamtkunstwerk, however, this transfer also affects the means of representation. In order to accomplish this dual transition, Wagner strictly limits the range of Alberich’s metamorphoses to slimy underground animals, which, in passing, recalls Adorno’s criticism about the essentialist racism of the characterization. Indeed, why not have him change into an eagle or a deer? The convenient proximity of Alberich’s dwelling to those of the serpent and the toad in the “natural world” frame the semantic space of the mimetic

\[\ldots\] that becomes double as soon as one attempts to unravel it: a resemblance of the place, the site upon which nature has placed the two things, and thus a similitude of properties; for in this natural container, the world, adjacency is not an exterior relation between things, but the sign of a relationship, obscure though it may be.\(^6\)

Indeed, in the mimetic order, or the space of resemblance, knowledge is predicated upon interpretation as the rendering visible of the Creator’s mark on animals and things. Moral judgements of every kind proliferate in this way of seeing the world. Yet, as in the painting by Velazquez, The Ring also offers us a (not so) discreet presentation of power relations. Albeit inconspicuous, the Tarnhelm (dis)embodies this visible yet hidden place that limits our way of seeing and knowing, and, in turn, subverts what presents itself as the unquestionable knowledge of reality compounded by the self-evidence of a preordained natural world.

Photo 1.
In an attempt to conciliate the visual split of resemblance and representation, Alberich has unleashed upon the world in *Das Rheingold*, Wagner first attempts its redemption in *Die Valkyrie* through a pair of Wotan’s illegitimate children. The Valvanter’s godly staff symbolizes treaties, as its runes inaugurate the historical time of writing. He cannot, therefore, directly partake in the freedom of mimetic transformation without forsaking his duty to enforce semantic stability. His children, the Wälsungen, would be free from his obligation to uphold the binding contract of representation, as the fantasy goes. They could therefore redeem the mimetic liberty of the primeval world that has been corrupted by greed and power. When Siegmund and Sieglinde fall in love, they act according to sympathetic recognition (the fourth type of resemblance according to Foucault) and therefore reject the moral interpretation of the matrimonial contract that binds Sieglinde to Hunding. Wotan’s desire for the golden age of his dominance over the mimetic world (or his ignorance of it) later resurfaces when the son of the Wälsungen, Siegfried, kills the dragon—a metamorphosis of Fafner, a giant who helped build Valhalla—and retrieves the Ring and Tarnhelm. Siegfried then unknowingly confronts his immortal grandfather and shatters the rune-laden spear with which Wotan ruled the world. In Wagner’s mythopoeia of humanity’s divine origins, the constant struggle between mimetic and representational regimes finally lands in the hands of the humans when the semi-divine hero, Siegfried, meets the Gibichung clan. The return of the Tarnhelm at this point of the Cycle’s plot certainly contributes to the constant confusion between what is seen and what is known.

**WAGNER AND SCENOGRAPHY**

Writers often turn to theatrical innovations at the Bayreuth Festspielhaus in order to emphasize the importance of the visual aspects of Wagnerian music drama. As in Greek theatres, the seats are laid out in a semi-circle and on a steep incline, so that the stage remains visible to everyone at all time. The double proscenium gives the illusion of the stage being framed and farther away, thereby drawing one’s gaze inward. This effect is further reinforced by a sunken orchestra pit, which removes it from the spectator’s view of the proscenium. Wagner’s critical misgivings about the state of opera in the mid-19th century further underline the importance of the visual aspects of Wagnerian music drama. Beyond the problem of having adequate rehearsal time in repertory theatres, Wagner was dismayed by their lack of scenographic resources. In perusing Wagner’s correspondence, Patrick Carnegy has singled out a number of occasions on which makeshift or stock sets could not visually match the intensity of his music. Either the prop boats in *Der fliegende Holländer* were too small to evoke the eerie grandeur of the ghost ship, or the wave machine failed to work, or created a feeble splash instead of a crash against the hull of the boats. Imitating the Paris Opera, Wagner even had guides printed that explained the scenographic requirements of his operas, demands that scared off some theatre directors and went completely ignored by others. This is the state of affairs of musical theatre in Wagner’s time, which led him to dream, plan, and build a theatre where the utmost care would be taken to understand and realize his artistic vision.

Yet the undertaking of this gigantic building project does not imply that it instantly achieved the ideal it was meant to fulfill. Here too Carnegy has amassed numerous examples that read like a blooper real for *The Ring*. Bayreuth is often quoted as the birthplace of the darkened theatre, which, along with the semi-circular seating, makes it the precursor of early cinema houses. Yet the audience was only plunged into darkness at the inaugural performance of *The Ring* because the dimming mechanism on the gaslights had not yet been installed in the new hall. On stage, the electrically lighted rainbow bridge at the end of *Das Rheingold* failed to project onto the staircase, and instead lay flat at the bottom of the backdrop. The fire surrounding Brünnhilde’s rock also had to be scaled back from real flames to a red-hued mist of steam. And of course, we cannot but mention the puppet dragon of Fafner in *Siegfried* that caused mirth rather than fright. While Wagner’s complaints about existing theatrical conditions and his attempts to remedy them are often quoted by those who still advocate productions faithful to the letter of the Master’s wishes, the list of visual mishaps and others like them at Bayreuth are evoked by those who would innovate technologically in order to comply with the spirit of his intentions, or of his vision.
years, we find, in addition to these technical aspects, an aesthetic transformation in Wagner's scenography.

Wagner's mythopoeia did not accord well with the academic accuracy lavished onto historical dramas at the time. Indeed, the crux of his aesthetic divergence with Ludwig II of Bavaria revolved around the king's insistence on historical recreations, going so far as to send designers to Nurnberg so they could replicate Hans Sachs' house for the sets of Die Meistersinger's premiere in Munich. Richard and Cosima had already fought hard to keep the costumes in the inaugural Bayreuth Ring from turning into museum pieces that would have very little to do with the internal logic of the drama being produced. This tendency towards the abstraction of historical visual detail was only confirmed as Wagner moved on from his epic tetralogy to a spiritual drama, Parsifal. The scenography of his last music drama would confirm a taste for simpler designs that would be iconic of an aesthetic vision, rather than a past reality. With the help of Christian symbolism, costumes and scenography were shorn of detail in order to concentrate visual attention on the key elements of the production. Although Wagner's distrust of historically accurate costumes and sets for The Ring might seem to be in line with the minimalist aesthetics of Parsifal, this visual abstraction contrasts dramatically with the mimetic requirements of the Tarnhelm scenes. Yet they both participate in the metaphysical ambitions of Wagner's music drama.

**MEDIA ARCHAEOLOGY AND THE WAGNERIAN GESAMTKUNSTWERK**

How can media archaeology critically inform our reception of Wagnerian scenography? One might start to answer this question by turning to Friedrich Kittler's work. Rather than rehearse the Gesamtkunstwerk's genealogy in metaphysical aesthetics, Kittler focuses on the new theatrical dispositifs at Bayreuth, which I mention above. He identifies them as precursors to talking cinema: “Wagner's Bayreuth opera was the first historical realization” of the separation and incorporation of “individual sensory channels.”11 Yet, in the larger point Kittler is making, audiovisual distinctions are less significant than the redistribution of light and the reordering of sight:

However, the projection of electric light through an otherwise darkened room seems to be the most important thing. It not only established the aesthetics and social pathology of cinema, but it also created a new militaristic way of perceiving the world.12 By social pathology, Kittler refers to his previous comments on the possibility of engaging in indecent activities (by 19th-century standards) in darkened public rooms. Kittler also intimates in the preceding pages how the stage lighting of actors under spotlights inevitably turned them into visual targets for the “actively armed eye.” Paradoxically, the militaristic worldview was ushered into history by a glimpse of la vie en rose. Indeed, Kittler traces the invention of coloured lighting to a translucent pink hat chanced upon in a theatre, but then immediately developed for military signalling. At Bayreuth, Wagner had used coloured spotlight and electrical lighting in combination with steam for a number of special effects, including the fire on Brünnhilde’s rock.

By the time Wagner staged the Ring Cycle, the steam engine’s technology had long since been harnessed and was therefore more reliable in the theatre than the new electrical lighting was. Thus Bayreuth had two full-sized locomotive boilers in its basement to provide its stage with all the primeval mist needed to envelop the gods in their magically unfolding world.13 Discussions of productions of Wagner that rely on new technological developments would benefit, for example, from Jussi Parikka’s discussion of steam punk in the introduction to *What is Media Archaeology?* If this subculture, “emblematic of important [current] cultural desires […] imagines in new ways the steam-engined machine worlds of the Victorian era which marked the birth of modern technological culture,”14 one might also consider how interpretations of The Ring promote or conceal the special-effects technology hidden in Bayreuth’s Victorian basement. This focus would lead one away from the iconic Gesamtkunstwerk, as Matthew Wilson Smith defines it, which “seeks to bury all outward signs of mechanical production, [although] it nevertheless relies heavily upon mechanization for its pseudo-organic effects.”15 Yet in actively seeking through media archaeology’s methods to “expose and celebrate the outward signs of mechanical production” in Wagner’s music drama, one might also be engaging with the crystalline Gesamtkunstwerk.16
The goal of such a reading, however, would be to move away from fantasized returns to natural origins—overly supported by technology or not—and to conclude that the only way out of this dialectical aesthetic identity of technological concealment and revelation entails, in the end, the acceptance that there is no way out of our technological destiny.

Before Wagner, opera had enjoyed a long history of wanting to make the invisible perceptible. In *Metaphysical Song*, Gary Tomlinson reads the history of opera in terms of this claim: its ability to express (the ideal forms of) a reality that cannot be seen, or, in Tomlinson's vocabulary, its claim to make the noumenal perceptible. In line with this metaphysical concept, early opera actively sought to stage transcending figures of Greek or Roman mythology that would make this musical beyond also perceptible to sight. The production of opera, however, transformed according to its cultural context. By the late-18th century, the culturally dominant form of subjectivity was no longer attuned to the magical and the cosmic, but was defined instead by the objective remove of self-sufficient reason. If Romantic opera was to later attempt the retrieval of the fiction and magic of earlier times, it did so, nevertheless, within this self-sufficient subjective space that could no longer rely on an exterior figure of transcendence, like Orpheus or Apollo, to bridge this gap. As mentioned above, Wagner's myth of origins, written from this subjective vantage point, must therefore conciliate the immediacy of the magical world (the Tarnhelm's metamorphoses) with the distance through which it designates a magic lantern show or the consumption of art as a spectacular ersatz for spirituality, the phantasmagoria functions on the presupposition that its audience only obtains satisfaction when it experiences art as some ex nihilo creation that requires neither effort, nor work to produce.

As Kittler suggests by situating his discussion of Wagner within the genealogy of the *magica lanterna*, the Wagnerian *Gesamtkunstwerk* succeeded in reordering the multimedia sensory channels by not only giving sound, but also sight to the (im)possible retrieval of noumenal autonomy. Whether it hides the back-stage labour that goes into making the illusion or requires a “fourth wall” that prevents characters from acknowledging the audience, the stage of the *Gesamtkunstwerk*, and more specifically, the mimetic staging of the Tarnhelm, is the phantasmagoric site of alienation's (dis)appearance. The *Ring*'s plot makes this seeming contradiction all the more obvious, since so much of its action is concerned with the control of labour.

Historically, productions of *The Ring* that address this alienation have been heavily criticized and generated considerable controversy. The first scandal of this kind at Bayreuth was in reaction to Patrice Chéreau’s centenary production of the tetralogy in 1976. After years of minimalist symbolism under Wieland Wagner’s directorship, Chéreau opted for a return in his scenography to figuration, although heavily traversed by transhistorical commentary. Refusing to stage the primeval nature of the Rhine’s depths, Chéreau locates the opening scene of the tetralogy at a massive cement dam. From the very first bars, the director overtly contradicts Wagner’s stage directions. Furthermore, Chéreau was also defying Wagner's aesthetics as drawn out in his prose works: 

Thus the *Machine* is the cold and heartless ally of luxury-craving men. Through the machine have they at last made human reason their liege subject; for, led astray from Art’s discovery, dishonoured and disowned,
it consumes itself at last in mechanical refinements, in absorption into the Machine, instead of in absorption into Nature in the Art-work.21

Rather than the creation of a primeval Rhine out of the harmonics of E-flat, the industrial dam defiantly spelled a rupture with the tradition of presenting Wagnerian myth as ahistorical and unaltered by the social context of its production. As such Chéreau's production was not simply critical of Wagner’s indications, it was also highly critical of its implicit worldview.22

Chéreau’s overt reversal of the historical progression from Nature to civilization ties into his understanding of the technology also at work within the theatre. The presence of the dam at both ends of the tetralogy definitely evokes Adorno’s critical comment on how, in the Gesamtkunstwerk, fantasy hides in plain view on the stage.23 Instead of following Wagner’s indications, Chéreau challenged the mythopoeic aspects of the work and called their bluff. Indeed, what does The Ring mean if we accept Derrida’s point that a primeval, pure Nature—the kind Rousseau and Herder theorized—never existed, except as early-modern speculation that has been tacitly framing the way we read and understand history and the world?24

Chéreau’s break with scenographic traditions shatters an illusory worldview The Ring helped to perpetuate and that was already historically outmoded 50 years ago, hence the breaking of the fourth wall at the end of his staging of Göttterdammerung.25 If Chéreau’s Ring starts in an industrialized world, then it stands to reason that at the end of the cycle’s revolutions, we cannot be extricated from industrialization and return to Nature, from which a new cycle would start again. In this, Chéreau seems to have foreseen the irreversible ecological and geological transformations brought on by human industrial activity, a new worldview scholars have been calling the anthropocene.26

INTERACTIVE TECHNOLOGY IN LEPAGE’S RING

Since Chéreau’s production, the development of digital media has transformed the ways we experience opera. While audiovisual technology used to be employed to transmit performances (television broadcast, VHS, DVD, cinema relay), digital media have since made their way to the stage. Digital opera studies, however, are still influenced by previous scholarly work on audiovisual transmission. Musicologists have commented on this technological revolution. Melina Esse argued that opera’s cinematic adaptation carries its own form of presence that is not secondary or fallen from the supposed authenticity of the live performance.27 Similarly, João Pedro Cachopo has more recently proposed that opera’s translation into cinema might even be necessary for the genre’s survival.28 In contrast, Bernadette Cochrane and Frances Bonner have pointed out that scholarly debates on these topics have been skewed through use of “inaccurate terms” in naming these new practices.29 They argue for a critical understanding of relay technology, rather than relying on the purposefully inaccurate terminology of marketing strategies and their disavowal of the commodification of performance: relays are not live if you are not in the same time-zone and they are not broadcast because they are narrowly disseminated on encrypted digital channels to cinema goers willing to pay a premium. The authors conclude that studying relayed performances as if they were films obscures, rather than informs the theatrical and televisual aspects of these events.30 This semantic and critical confusion around filming and cinema relays also finds its way to discussions of digital media in opera scenography.

The cinematographic tenor of these scholarly debates seems to have spilled over into the controversy surrounding Robert Lepage’s production of The Ring. According to Ellen Gamerman, for example, opera is now in the business of creating the kind of “film-style effects” usually found in Hollywood movies.31 Her remarks were prompted by Lepage’s production of The Ring’s first episode, Das Rheingold.32 Beyond the novelty of digital effects, however, cinema has a tradition of spectacular effects that was inherited from theatrical revues and, later, Broadway shows. Hollywood musicals transmitted the tradition of huge sets upon which performers danced, kicked, dived, and sang, an intermedial practice of theatre and cinema encapsulated as early as 1936 in The Great Ziegfeld (Photo 2). Because of this Hollywood tradition, something is strangely familiar in Lepage’s immense 45-ton revolving-plank set, which takes up the whole space of the stage in all four episodes of The Ring. Not only do characters climb and slide all over this shifting
machine like the Ziegfeld girls would, but lighting, images, and videos are projected onto it as well. Yet by focusing on the spectacular aspect of the production and the special effects inherited from Hollywood movies, (and, by association, its supposedly low-brow, comic-book superficiality) the critical reception of this Ring production has not fully investigated its digital innovations for opera scenography.

When one hears the term special effects today, one thinks of fantastic worlds of science fiction and fantasy films. As Matthew Wilson Smith has noted, however, the special effects in Lepage’s Ring are distributed within a theatrical practice of multimedia scenography that has less to do with cinema than it does with videogames. Most operagoers will have already seen a production that features the digital projection of an element of decor or set. Projections are, however, only one instrument in the cache of digital means upon which rely Lepage and his production company, ExMachina. In listing the production’s interactive software and stage implements, Smith’s article follows Lepage’s claim that “digital interactivity returns the human to performance” as the opera singers prompt the digital projections that take place not only on a backdrop behind them, but often all around them. The interactive media onstage promise wonders for future opera productions in terms of singer-led scripted improvisations that instantaneously alter or, more precisely, enhance scenography. In the liner notes that accompany the DVD of Die Walküre, Lepage states that the interactive video projections [are] triggered by the singers’ bodies and voices. Very little is pre-shot. The idea was to put technology at the service of the music and the choreography and the theatrical presence of the performer.

Further on the same page, he explains that the same technology was used for instrumental passages in which the “live swelling [of objects projected on screen] comes from the orchestra.” One wonders, however, at the level of interactivity in the magic lantern show that Lepage projected against the backdrop of Hunding’s hut while Siegmund regales his hosts with the tale of his family origins. Does the orchestra’s playing determine the rhythm of the phantasmagoria unraveling? Beyond evoking the intimacy of the hearth as the sole source of heat and light in a primitive hut, the magic lantern show is also Lepage’s tip of the hat to Wagner himself, who, against the advice of his choreographer, used the technique to depict the Ride of the Valkyries in his inaugural staging at Bayreuth. Yet by including the original form of the phantasmagoria in this particular scene, rather than employing the medium to stage winged horses, Lepage is making a comment that critics and zealots of fidelity should ponder further: one can be faithful to Wagner’s curiosity and search for the newest stage technologies without, however, perpetuating a Romantic nationalistic discourse of mythical origins. Indeed, Lepage might be sympathetic to Wagner’s technological scenography, but not necessarily to his aesthetic ideology. The proscenium in front of the Machine has, after all, clearly demonstrated Lepage’s knowledge of previous scenographic reforms of Wagner’s work, more precisely of Adolphe Appia’s use of electrical lighting in order “to clear the stage space so that attention would be focused principally on the singing actor.” In recasting the phantasmagoria...
to Siegmund’s high tale, rather than the descent of the winged horses, and in nicknaming his set “the Machine,” Lepage’s production clearly invites us to look behind our shoulder, to turn our head and investigate not only the shadows on stage, but the sources of light that make them possible.

Nevertheless, this type of intermedial interactivity—i.e. the prompting of moving images on the set through vocalization and bodily movements—is an important site of visual friction with the mimetic scenes in The Ring, not so much because of what the interactive media make appear, but because of Lepage’s refusal to employ the technology to its full extent in the scenes that seem to require it most. For all of these ingenious and critical deployments of digital scenography, the Tarnhelm scenes are treated with relatively traditional means. Although the dragon’s body as projected onto the “Machine” takes up the whole width of the stage, the image remains still, while only the mechanical head and tail on either side of the Machine are mobile. In this same scene, Alberich does not vanish through a smoke screen of digital invention, but by being rolled off-stage on a dissimulated dolly. As Alberich crouches while being pulled off-stage, the effect is one of transformation, especially as it occurs while the dragon comes to life. Similarly, the dragon in Siegfried is also a mechanical prop. All of the Tarnhelm’s mimetic scenes of animal metamorphoses have been created with traditional theatrical effects, when, given its digital means, the production could have easily relied on greater displays of virtual reality. With the latest technology available to stage the mimetic scenes of Das Rheingold, Lepage does not feed the illusion that an immersion in digital projections might free us from our awareness of technology and restore us—if not to a pure, primeval nature, at least—to the autonomy of our inner nature. By consciously avoiding this movement-detection and replication technology in the scenes that are potentially the most phantasmagorical, Lepage’s digital scenography is thus critically discerning of the Gesamtkunstwerk’s iconic and crystalline dialectic.

CONCLUSION

In an interview during an intermission of the cinema relay of Siegfried, Lepage’s collaborator, Roger Parent, explained where his company Réalisations.net found the technology to give the Forest bird a three-dimensional appearance and make its beak move in time with the vocalist’s singing. He quite candidly told viewers that it was gathered, among other places, from military research and development, but that put in the hands of artists, it recreated a magical world for the age of digital technology. In this confession, one hears the digital echoes of Kittler’s discussion of Babbage’s militarization of the coloured light he discovered at the theatre. Instead of looking back to Bayreuth’s special effects and the concealment of steam engines and the manual labour involved in feeding their furnaces, another archaeological investigation of media might better explain how spectators adopt a certain discourse when they experience interactive stage media within an aesthetic totality.

Sean Michael’s novel Us Conductors offers many opportunities to ponder the darker political side of the kind of intermedial interactivity at work in Lepage’s Ring. This fictional biography of Léon Theremin explores the ethical ramifications of the many technological devices he developed following his research in electromagnetism. Michael’s novel stages a particular invention that resonates like an analogue counterpoint to the movement- and sound-activated digital bubbles, pebbles, mists, and clouds in Lepage’s production of Das Rheingold. It was in New York City as well that Theremin’s interest in the electromagnetic harnessing of dance gestures and their translation into sound led to his invention of the terpsitone. As Michael’s novel embeds the novel’s narration within imagined scenes in which Theremin writes his autobiography, the narrator and character here speak in the first person:

The terpsitone [...] was my crown jewel, my new infatuation. It felt like an object I had found, an old artifact I had uncovered: dance that makes music. Whereas the theremin reads melody from the gestures of two hands in the air, the terpsitone, the “ether-wave dance stage,” interprets movements of the whole body. The performer’s gestures have a double meaning—the gestures as gestures, and the manipulation of sound.

The terpsitone is not only the mechanical expression of its inventor’s passion for dance; the uncovered “old artefact” further represents Theremin’s desire to employ technology to retrieve art’s
mimetic origins in bodily expression. The terpsitone, by sounding the music of people’s dancing, could even reverse the commodification logic of the cultural industry.

As noted above with Tomlinson, the attempt to resurrect a period prior to music’s entanglement in the world of commodities was already an unknown subject of concern for Wagner. Indeed, the similarities between Michael’s representation of Theremin’s technological utopianism and the Wagnerian “Artwork of the Future” both involve speculation on the mimetic origins and destiny of art:

The most realistic of all arts is that of Dance. Its artistic “stuff” is the actual living Man; and in troth no single portion of him, but the whole man from heel to crown, such as he shows himself unto the eye. It therefore includes within itself the conditions for the enunciation of all remaining arts: the singing and speaking man must necessarily be a bodily man; through his outer form, through the posture of his limbs, the inner, singing and speaking man comes for to view. The arts of Tone and Poetry become first understandable in that of Dance, the Mimetic art, by the entire art-receptive man, i.e. by him who not only hears but also sees.41

Wagner goes on to explain how drama was created after Dance’s multiple stages of mimetic translation into other genres and media (Tone and Poetry). Theremin, going a step further, employs the terpsitone’s electromagnetic technology to bypass all of the historical mimetic translations of dance into sound and poetry that form the gesamt part of Wagner’s total work of art.42

Does Theremin’s analogue multimedia technology compare to Lepage’s digital interactive stage devices? Or, to put it differently, do the special effects of Lepage’s production unravel the aesthetic ideology of Wagner’s Ring? For one, Lepage’s interactive media do not produce sound, but rather images. Second, they harness sound, as well as gesture to modulate or enhance programmed images or even modify them according to programmed algorithms. Third, contrary to the surveillance capacities of Theremin’s technology, Lepage’s interactive media do not seek to invade private discussions or to spy on certain characters. One might say, therefore, that Lepage’s interactive scenography is a digital extrapolation on Wagner’s scenographic ambitions. To media archaeology, however, Wagner’s music drama prefigures the social deployment of Theremin’s technology. Indeed, just as Bayreuth foreshadowed other 20th-century technologies, Wagner’s mimetic ambitions had already announced the rise of electronic surveillance. In answer to Mime’s plot to kill Siegfried, Wagner has his hero drink the metamorphosed blood of the slayed Fafner, in order that he might partake in the mimetic order and understand the Forest bird’s warning, as well as Mime’s thoughts. In this scene as in others, the primitivist regression of Wagner’s Gesamtkunstwerk foreshadows the worst social uses of media technology. In an age of massive surveillance, perhaps being “faithful” to Wagner’s scenography entails the use of digital technology in order to problematize the desires and fantasies of the dramas, rather than attempting to realise Wagner’s dream.

Notes

1. There are many articles and blog posts that give summaries of the controversy at specific moments over the two years it took to produce the Met’s new Ring Cycle. See Alex Ross, “Encircling the ‘Ring’,” The New Yorker, May 7, 2012, http://www.newyorker.com/culture/culture-desk/encircling-the-ring (accessed October 25, 2015). Cf. the following blog entry by peterp, May 8, 2012 – 9:43 am, “The Met Ring and Critical Incompetence,” The Wagner Blog, http://thewagnerblog.com/2012/05/the-met-ring-and-critical-incompetence/ (accessed April 12, 2015).

2. Chéreau in Jean-Jacques Nattiez, Téralogies: Wagner, Boulez, Chéreau. Essai sur l’infidélité (Paris: Christian Bourgois, 1983), 77.

3. Patrick Carnegy, “Designing Wagner,” in Wagner in Performance, ed. Barry Millington and Stewart Spencer (New Haven, CT: Yale University Press), 49–50.

4. Stewart Spencer and Barry Millington, Wagner’s Ring of the Nibelung: A Companion (London: Thames and Hudson, 2000), 291.

5. Michel Foucault, Discipline and Punish: The Birth of the Prison (New York: Pantheon Books, 1977).

6. Michel Foucault, The Order of Things: An Archaeology of the Human Sciences (London: Routledge, 1989), 20.

7. Mike Ashman, “Producing Wagner,” in Wagner in Performance, ed. Barry Millington and Stewart Spencer (New Haven, CT: Yale University Press), 29, 34–5.

8. Patrick Carnegy, Wagner and the Art of the Theatre (New Haven, CT: Yale University Press, 2006), 1–45.

9. Carnegy, Wagner and the Art, 69–106.

10. Ashman, “Producing Wagner,” 31.
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11. Friedrich Kittler, *Optical Media: Berlin Lectures 1999*, trans. Anthony Enns (Cambridge: Polity Press, 2010), 172.
12. Kittler, *Optical Media*, 173.
13. Carnegy, *Wagner and the Art*, 85.
14. Jussi Parikka, *What is Media Archaeology*? (Cambridge: Polity Press, 2012), 1.
15. Matthew Wilson Smith, *The Total Work of Art: From Bayreuth to Cyberspace* (New York: Routledge, 2007), 4.
16. Idem.
17. Gary Tomlinson, *Metaphysical Song* (Princeton, NJ: Princeton University Press, 1999), 130–1.
18. Theodor Adorno, *In Search of Wagner* (London: Verso, 2005), 81. See also the preceding and next chapter of the book for more comments on Wagnerian music drama as the artistic embodiment of commodity fetishism.
19. Adorno, *In Search of Wagner*, 74 fn1.
20. Kittler, *Optical Media*, 171.
21. Richard Wagner, “The Art-Work of the Future,” in *Richard Wagner’s Prose Works Vol. 1*, trans. William Ashton Ellis (New York: Broude Bros, 1966), 85.
22. Nattiez, *Tétrologies*, 67–9.
23. Nattiez, *Tétrologies*, 76.
24. Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak, (Baltimore, MD: John Hopkins University Press, 1976).
25. Nattiez, *Tétrologies*, 84.
26. Dipesh Chakrabarty, “The Climate of History: Four Theses,” *Critical Inquiry* 35, no. 2 (2009): 197–222.
27. Melina Esse, “Don’t Look Now: Opera, Liveness and the Televisual,” *Opera Quarterly* 26, no. 1 (2010): 81–95.
28. João Pedro Cachopo, “Opera’s Screen Metamorphosis: The Survival of a Genre or a Matter of Translation?” *Opera Quarterly* 30, no. 4 (2014): 315–29.
29. Bernadette Cochrane and Frances Bonner, “Screening form the Met, the NT, of the House: What Changes with the Live Relay,” *Adaptation* 7, no. 2 (2014): 121–33.
30. See also Matthew Wilson Smith, “Gesamtkunstwerk and Glitch,” *Theater* 42, no. 2 (2012): 67–8.
31. Ellen Gameren, “A Digital Night at the Opera,” *Wall Street Journal*, September 17, 2010, http://www.wsj.com/articles/SB100014240527487033765 04575491971631630324 (accessed April 12, 2015).
32. Photos of the productions can be viewed online at the following address: http://ringcycle.metoperafamily.org/ (accessed October 25, 2015).
33. *The Great Ziegfeld*, directed by Robert Z. Leonard (1936: Beverly Hills, CA: Time Warner, 2010), DVD.
34. Smith, “Gesamtkunstwerk and Glitch,” 66–8.
35. Smith, “Gesamtkunstwerk and Glitch,” 70. I am reminded here of an earlier research and development project in interactive stage technology. See Joseph A. Paradiso, “The Brain Opera Technology: New Instruments and Gestural Sensors for Musical Interaction and Performance,” *Journal of New Music Research* 28, no. 2 (1999): 130–49.
36. Robert Lepage, “An Interview with Robert, Lepage,” liner notes to *Die Walküre*, in *Richard Wagner: Der Ring des Nibelungen*, DVD. Metropolitan Opera Orchestra and Chorus directed by James Levine and Fabio Luisi (Deutsche Grammophon, 2012), 6–7.
37. Carnegy, *Wagner and the Art*, 97–9.
38. Carnegy, “Designing Wagner,” 53.
39. “Mary Jo Heath interviews Roger Parent of Réalisation.net,” from the “Backstage at the Met” series included with *Siegfried*, in *Richard Wagner: Der Ring des Nibelungen*, DVD. Metropolitan Opera Orchestra and Chorus directed by James Levine and Fabio Luisi (Deutsche Grammophon, 2012).
40. Sean Michaels, *Us Conductors* (Portland: TinHouse Books, 2014), 150–1.
41. Richard Wagner, “The Artwork of the Future,” in *Richard Wagner’s Prose Works*, vol. 1., trans. William Ashton Ellis (New York: Broude Bros, 1966), 100.
42. Wagner, “The Artwork of the Future,” 104.