# Glenn Gould, the Vanishing Performer and the Ambivalence of the Studio

### Tim Hecker

In 1964, Canadian pianist Glenn Gould shocked the concert-going world by announcing his retirement from public performance. He was only 32 years old at the time, and at the height of his career. The significance of this move was amplified by his declaration that the concert hall would soon be obsolete. Gould believed that the privileged position of public performance, an institution he viewed as haphazard and prosaic, would soon be trumped by the recording studio as the key locus of creative music possibility. Thus, he led by

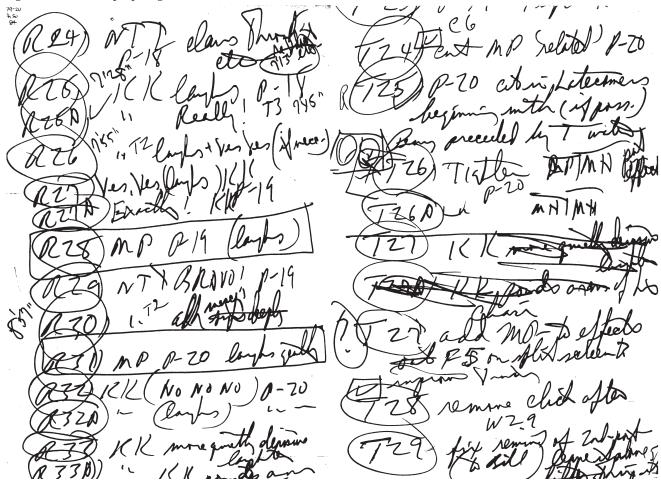
example and retreated toward the cloistered confines of the studio, the laboratory of sound that afforded new calibrations of instrumental virtuosity, studio techniques and social relations of creative labor. For Gould, the studio was an opening of physical and creative liberation, but it also became a vessel for ascetic practices and a means to disappear from public life. It is the tension between the transcendentalist view of recorded media in his writings and

ABSTRACT

his article examines Canadian pianist Glenn Gould's turn from performance to the recording studio as a means to realize music's utopian potential. What emerged from these post-performance years was a deep ambivalence engendered by the studio itself: a distinctly compelling vision of the studio as a monastic retreat, a site of total control in music and a technology of self-erasure.

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Fig. 1. Glenn Gould, tape-splicing schematics, 1979–1980. (© Glenn Gould Estate)



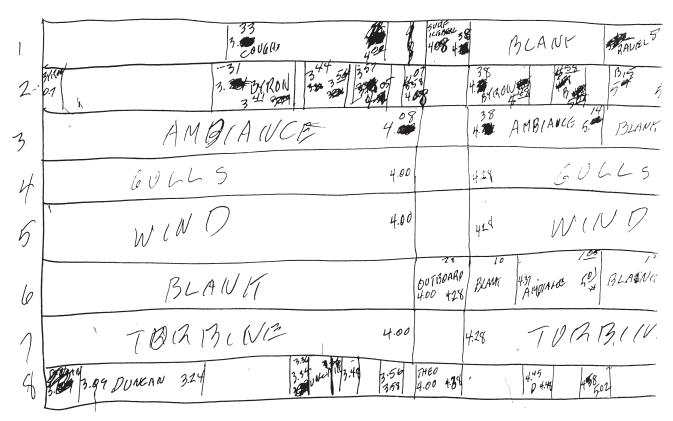


Fig. 2. Glenn Gould, multitrack schematic, 1979-1980. (© Glenn Gould Estate)

the materiality of his studio practice that is the focus of this essay.

I argue that Gould's studio practice reveals significant insights into the ways in which musicians addressed the terrain of electronic media and that the studio provided an opportunity for performance by other means. Gould viewed his turn toward the recording studio as an opening towards an almost utopian form of artistic liberation and social possibility. However, the reality of his studio practice suggests a deep ambivalencea vision of musical practice as monastic retreat, a site of total control and a technology of self-erasure. In tracing some of the pathways of Gould's studio practice, my goal is not simply to demarcate the friction between theory and practice but rather to underline Gould as a key paradigm of this important and understudied aspect of modern music [1]. The studio is in this sense a physical space, a field of social relations and a frame of musical consciousness, one that encourages aesthetic experimentation while providing the possibility of a life of solitude.

Gould is helpful in approaching the studio in part because of the seriousness of his devotion to it, both as a vessel for aesthetic realization and as a means of self-constitution. It is curious then that

this master pianist, who to Edward Said represented a new era of "intellectual" virtuosity, chose the recording studio over performance at the height of his fame [2]. His retreat came at a point in which recorded music was at a crossroads, where traditional compositional values were being matched and arguably trumped by production aesthetics. The studio was increasingly viewed as an instrument in its own right, with endless possibilities, invoking a state of both liberation and anxiety. Gould provides texture to this dialectic. Furthermore, Gould's studio practice of total control offers a counterpoint to the prevalence of Cagean aesthetics of chance and randomness within the avant-garde. The technical precision and artistic potential of the studio served as an antidote to the accident-laden sphere of performance. Neither silence nor Zen mysticism had much welcome here.

### UTOPIAN THEORIES OF INTERACTIVITY AND NETWORK-MEDIATED CREATIVITY

After Gould's retirement from live performance, he spent the period of the mid-1960s both in the recording studio and as a public advocate for electronic media. He was active in the cause through published essays and radio interventions, leading journalists to dub him "the philosopher of recording." Gould's recording philosophy was essentially an emancipatory strain of media futurology inspired in part by Marshall McLuhan, through which he promoted a mediated form of creative expression as interactive experience. He argued for a new form of creative communication that would break down the creator/listener axis by granting new interpretive agency to listeners and in turn liberating those listeners from the dominance of the artist as singular visionary. Gould was promoting an idea of cultural communication as an "invisible" network. This network was a vision of artistic dissemination whereby the recording studio transmitted works through media channels to "creative listeners." The creative agency of the listener was to cycle back into the development of works as a feedback loop, generating a "benign boomerang" of ideas that would oscillate from the studio to society and back again [3].

Recorded music, for Gould, was viewed as a commodity propagated through telematic communication, which bridged the gap from the recording studio directly into living rooms and promoted an abstract form of cultural experience and performative possibility:

[the performance] undergoes a profound metamorphosis as a result of its exposure to that chain, to that network, and the result is a performance transformed, a performance transcended, a performance sent out into the world, if you like, charged with a very special mission. In my opinion, that mission is to enable the listener to realize the benefits of that invisible network, that climate of anonymity which the network provides [4].

What Gould promoted was nothing short of a utopian ideal of musical transmission and experience, which contextualized and prioritized listening as a singular, atomized, private form of audition. This was in contrast to the inherent conformism of the concert hall, where because of crowd dynamics, the concertgoer was likened to an automaton [5]. Instead, his idealized individuated home listener was seen as a constructive agent. Techniques such as do-it-yourself home tape splicing would encourage the listener to conduct their own montages through "splice prerogatives," and the possibility of manipulating pitch and tonal configurations through high-fidelity sound systems. Gould was forwarding an argument for recorded media as alive and live performance as dead, in opposition to the more common metaphysical view of recording, which usually suggests that the physical presence of live performance is the most vital, "alive" means of musical dissemination [6].

Gould invested great stock in interactivity and listener agency, such that beyond the vision of isolated listeners actively interpreting studio works was the more profound hope that the listener might become involved in the creative act itself. While it could be seen as a gesture of communal participation, it also reinforced the primacy and anonymity of the individual within the network: "[T]he more participants you permit into the creative act, the more anonymity is automatically ceded to the individual participant" [7]. This network was not to serve a collective public, but rather to nurture a sense of inner experience and an individualist form of interpersonal communication [8]. For Gould, this inspired, ethical paradigm of interactivity would liberate listeners from the burden of the cult of the author in artistic creation by ceding creative interpretation to those listeners and affecting the diminution or even erasure of the artist-as-genius. Though it was not clear how Gould expected this creative feedback utopia of network-mediated music to be realized, he viewed his retirement from the concert into the studio as an important step towards this goal.

Gould's utopian prophecy of recorded media posited a radical reconsideration of the status of the artist. Other artists within the avant-garde musical community, such as Pierre Boulez, also wished to overcome the trap of individualism in creative practice, which he hoped to realize in his case through "global, generalizable solutions" [9]. For McLuhan, this meant that the audience would increasingly become the composer [10]. This challenge to the primacy of the artist during this era was mounted from a variety of fronts: music, literature, visual arts, as well as through the emergence of poststructuralist thought and cybernetics. What Gould repeatedly returned to, whether it was in the context of the studio as network, creative listening or reconfigured individualism, was the notion that art as the paradigm of masterworks disseminated by a singular artist-genius was in need of transgression. Going even further, the technological imperative, as facilitated by recording technology, would serve toward the end of art itself

## GOULD'S ANTI-NATURALIST STUDIO TECHNIQUE

It was a significant symbolic move for Gould, widely recognized as one of the greatest living virtuosos of the piano, to abandon performance in favor of the seemingly limitless opportunities of the recording studio. As a pianist, he was considered technically and intellectually phenomenal; one New York critic stated, "Even at his worst [Gould] is a musician so far in advance of most of his contemporaries that there is no legitimate basis for comparison" [12]. It is fitting then to view his subsequent move away from performance as the recalibration into a new locus of virtuosity, from a specifically manual virtuosity to one of aesthetictechnological competence based on a combination of manual and technical skills. The studio, in contrast to purely live performance, was the proper venue for this new locus.

In rejecting live performance, Gould asserted the primacy of the recording studio as *the* locale for creative music expression. What was truly special was the extent to which Gould as a performer developed intellectually rigorous aesthetic practices tailored for the studio's confines. In 1982, Brian Eno, another prophet of recording, positioned the studio within

a broad shift toward its increasing use as an essential instrument of composition [13]. Gould had been practicing this notion for nearly 20 years before this point, employing techniques ranging from radical tape editing to manipulations of reverb and microphone placement. This was anti-naturalist recording in its most conceptually rigorous state, a challenge to metaphysical ideals of musical unity in its rejection of the idea of recording as the capturing of an original "live" presence; this was rather recording as "documentary cheating" aimed squarely at the pretensions of naturalist representation [14].

In his 1964 article "The Prospects of Recording," Gould shocked many readers by discussing his recording of Bach's Well Tempered Clavier, a recording in which he was not completely satisfied with any of the eight takes of a certain movement. He decided to combine portions containing the "Teutonic severity" of take 6 with some cuts from the "unwarranted jubilation" of take 8, the result being a hybrid of two distinct moods and a creatively acceptable postproduction editing decision [15]. In doing so, Gould was asserting the notion of recording as artifice, one that recognized the process as inherently artificial and viewed his role as a public advocate of that fact. This debate had already persisted for some time [16].

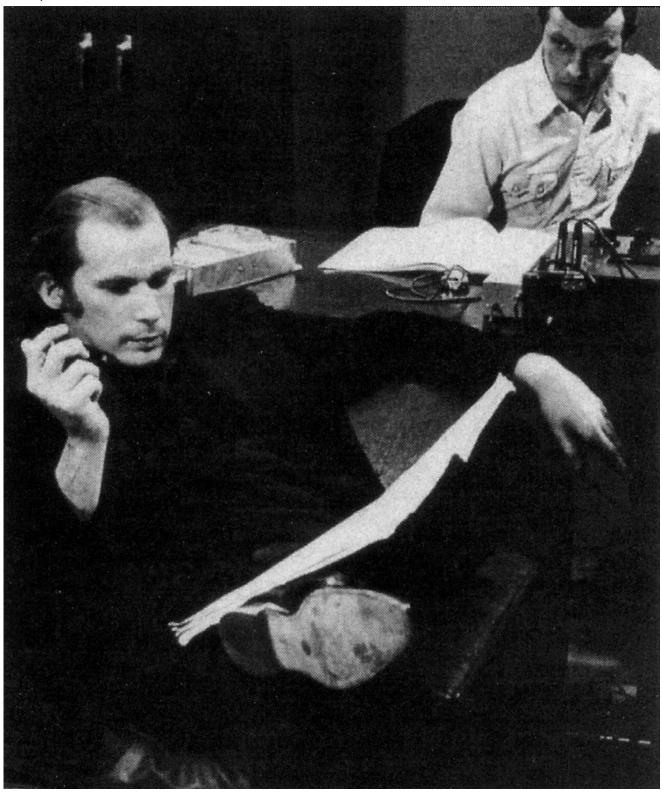
Early debates aside, the general paradigm in classical music has continued to be transparent documentary representation; Gould's ideas have therefore maintained an oppositional relevance. He vigorously opposed the idea of recording as representation, arguing that important values such as analytic detail or precision need not be tucked inside the cloak of naturalism, acoustic fidelity or the artificial reconstruction of live recordings through space-simulated reverb. He scorned the use of quadraphonic recordings that simulated the concert experience by dedicating two of the four channels to concert hall crowd ambience, an idea Gould viewed as "utterly idiotic" [17]. He argued that there was no inherent reason why efforts in quadraphonic sound design needed to focus on realist techniques such as space emulation at the expense of other, unknown frontiers of sonic possibility. This field of possibility, the aesthetic realms opened up in part by studio technology, was an artistic imperative to pursue. His differences in this regard with recording naturalists also put Gould squarely at odds with many in the avant-garde. Boulez, for example, often suggested that studio technology be limited to its originally reproductive role [18]. Perhaps Gould's humming, detectable in many of his recordings and his insistence on his squeaky piano chair both reveal the physical space and the artifice of the studio within the recording itself. As such both might be seen as reactions

against the dominant ideology of representational recording.

His answer to the challenge of documentary representation was to develop a whole set of concrete aesthetic practices that would creatively embrace the nearly

endless sonic malleability contained within the recording studio. Techniques such as the art of microphone placement, which Gould argued had already forced performers to adapt their performances to encompass the microphone's

Fig. 3. Studio visions: Gould with Lorne Tulk, Eatons Studio, 1971. (Photo: Walter Curtin. © Estate of Walter Curtin. Courtesy of Glenn Gould Estate.)



powers, became a pliable field of inquiry. Thus, he utilized a multitude of microphone and mixing techniques, including the development of "acoustic orchestration," where multiple microphones placed at different points in the studio were blended and dynamically mixed throughout a piece to achieve a desired effect. The inspiration came in part from cinema, which was viewed to be as distant an art form from theater as recording was from musical performance. In Gould's eye the work of Jean-Luc Godard and some of his contemporaries, with their progressive montage and camera techniques, made contemporary music production appear antiquated [19]. Cinematic tropes, for example, were used in abundance in Gould's acoustic orchestration of Scriabin's Two Pieces, in which he referred to different acoustic perspectives as the "long shot," "medium shot" and "close-up." These shots were mixed together in an unorthodox combination of smooth fades and sharp cuts, distinctly in the irreverent spirit of the nouvelle vague [20]. These cinematically influenced audio techniques helped push the realm of the studio further toward the domain of artistic practice.

Perhaps most significant was Gould's advocacy of the seemingly infinite potential of magnetic tape, both for the disjunctive rupture-like quality of the tape splice as well as for the textural possibilities of multitrack assemblage. While seemingly cavalier about the practice of tape splicing, in one instance bragging of having over a hundred splices contained within a single piece, Gould was somewhat conservative regarding music-based splicing [21]. He spliced less than some of his contemporaries, apparently due to his unparalleled technical execution of pieces, such that they often required little cleanup. It was his radio work in which the materiality of multiple reelto-reel tapes mattered, where the assemblage process and tape splicing required a compositional template and notation system different from that of traditional piano works (Fig. 1). Thus, tape and its seemingly infinite combinatory and collage-like possibilities presented an open terrain of aesthetic options, somewhat akin to the wide spectrum of possibilities available in interpreting music scores so well displayed in his creative deconstructions of Bach.

Multitrack recording, in particular, encouraged Gould to posit a break from a strictly musical practice to the strikingly original narrative-based audio style of his radio pieces. In 1967, the CBC broadcast Gould's meditation on Canadian solitude

The Idea of North, an exercise in "contrapuntal radio" and a robust expression of multichannel technique. For all of Gould's aversion to "sensual composition," his Idea of North and the broader project, named the Solitude Trilogy, were essentially narrative mood pieces, impressionistic washes of cascading confessions and testimonies of the loneliness and creative possibilities of the experience of solitude—a meditation on the "dark night of the human soul." These dream documentaries used multitrack montage, done with razor, tape and a multitrack recorder graphed out in a schematic approach in a form also akin to musical composition (see Fig. 2 for a later example). Unlike his Scriabin work, his ideas of editing voice were based on distinctly musical analogies: rhythm, texture, dynamics, pace and the use of silence [22]. Viewing these multitrack assemblages as scores, his structural thinking also was modeled by musical paradigms—sonata, fugue, crescendo and decrescendo, for example. Part of the significance of these impressionist radio pieces was that they were highly technical studio works coming from one of the foremost virtuosos of the piano.

#### THE LABOR OF RECORDING AND THE EMERGENCE OF THE STUDIO VISIONARY

Indeed, Gould's practice and proselytizing for the virtues of studio-mediated artistic expression occurred during a period when the social stratification inside the studio and its roles and responsibilities were under increasing scrutiny. On one hand, this scrutiny resulted in the realization of new roles that could be acted out and the transgression of old ones, such as the possibility of the engineer acting as more of a creative mediator between performer and producer [23]. On the other hand, this was also the point of a new closure, as seen by Gould becoming intimately involved in all aspects of recording, be it in performing, producing or engineering. This was in essence a singular push toward total control—control of both the artistic and the technical aspects of the recorded artifact as well as the social relations of that creative production. The liberation experienced in other studios by these creative sound shapers, the "recordists," was not advanced to the same extent in the studio practice of Gould.

In assembling a tape-spliced pastiche of Bach's *Well Tempered Clavier*, Gould personally bore witness to the development of a creative and interpretive per-

former/producer, which coupled both performative and tape editing/production decisions. He referred to this new studio archetype as a "forger," which he described as "the unknown maker of unauthenticated goods," a term saturated with the rhetoric of artistic liberation and a yearning for anonymity [24]. However, old studio hierarchies and roles did not disappear overnight. This new "forger" was increasingly reliant upon technical assistants for consultation and help with the messy, confusing and technically demanding tasks of many of the new roles found within the liberated studio (Fig. 3). Tape splicing, for example, was a complicated routine that required significant organization, attention and technique; assistance was required. Thus, the emergence of this forger also suggests an autocratic paradigm of the composer in the electronic age. This paradigm was a push toward total control, the reassertion of the artist-genius through involvement in "some portion of each procedure through which his intention is made explicitly in sound" [25]. The studio was in a sense, then, the site of a new, technically broadened, visionary performer/ editor/producer who was also increasingly reliant on expertise and labor to materialize those visions-someone who was needed to organize tape reels, work patch bays and run the multitrack equipment and the plethora of other technologies present.

This "autocracy" of the studio can be seen as a reinscription of the 19th-century mental-manual distinction, a division of labor bifurcating mental culture from manual labor, but in Gould's case relying upon a semi-invisible underclass of studio technicians. This is evident in the constant reinforcement of his singular vision and negation of the possibilities of a new means of collective authorship, despite his involvement in collective studio projects. It is telling, then, that for the cover image of his Silver Jubilee Album (1980), Gould chose to pose in front of studio controls he may have normally delegated to others (not to mention the labyrinthine self-referential video screens behind). Andrew Kazdin, a long-time producer for CBS Masterworks and collaborator on many of Gould's recordings. noted that while Gould had an innate understanding for many technical aspects of recording, he was profoundly reliant upon his assistants. In particular, he relied upon people within his inner circle, such as Kazdin, to conduct the mixes, set up microphones, attend to the minutiae of fragments of tape splicing, solve problems and exorcise the "gremlins" from



Fig. 4. Hotel Studio, Inn on the Park, 1982. (Photo: Lorne Tulk. © CBC. Courtesy of Glenn Gould Estate.)

within the studio itself. His reliance on assistants apparently even extended to basic household chores; someone needed to attend to the gremlins lurking within his neglected homestead [26].

### FROM A POINT OF REFUGE TO A GATEWAY OF DISAPPEARANCE

Studio practices were amenable to Gould in part because of his deeply ambivalent relationship to the outside world, his artistic practice and his body. Yet the discord between his utopian theories of creative technological practice and the reinforcement of the artist-genius suggests an inherently ambivalent view of the studio itself. This ambivalence inherent in the studio is, as suggested by Brian Eno, likely due in part to the multitude of options contained within its space, an irony of limitless technology that in actuality contributes to a loss of freedom. A sympathetic reading might be that Gould was anesthetized by the overload of options and the loss of the intuition that comes from tactility, familiarity and the imposition of technological constraints [27]. A reading in this direction gives credence to his reliance upon technical

assistance as brought on by a state of endless sonic malleability.

The importance of the studio was also reflected in Gould's relationship with his own body. The studio saved Gould from the burdens of performance and the physical toll it took on a person increasingly at odds with his biological realities. As much as the studio itself could be seen as a venue for total control, Gould's body itself was a venue for surveillance. During his performance years, a poster was sometimes placed on his dressing room door instructing well-wishers to avoid shaking his hand and to avoid physical contact altogether [28]. What began as a retreat from physical contact turned toward a deeply pathological monitoring of biorhythms and pharmaceutical drug addiction, recognized as a likely cause of his untimely death. His physical unease was greatly documented.

Gould's deep ambivalences rendered the studio the only possible site of artistic expression and personal salvation. He viewed the studio as a sort of embryonic insulation from the world, a laboratory of the late night that rewarded experimentation, sheltering him from the external pressures that stifled creative

development: "It's, quite literally, an environment where time turns in upon itself, where, as in a cloister, one is able to withstand the frantic pursuit of the transient, of the moment-to-moment, dayby-day succession of events" [29]. The availability of the studio allowed Gould to continue his musical career by other means, being both a radical break as a physical liberation from performance, and business as usual in the sense of a performative transmigration. Yet during the post-performance years, his aversion to the physical public grew to the point at which he would only pick up the numerous awards offered to him if there was no public ceremony. According to Gould historian Kevin Bazzana, Gould would only interact with the public through the prosthesis of electronic media [30]. Hence solitude, the overarching paradigm of his beloved "creative listener," also characterized the monastic inner life of his studio practice.

Following Michel Foucault, then, Gould's studio solitude might be seen as a technology of the self, as an instrument that provided the conditions for self-constitution and personal salvation. For Foucault, these technologies are ac-

tions that permit individuals to effect their own means of attaining "a certain state of happiness, wisdom, perfection or immortality" [31]. His analysis traced a notion of retreat back to the Stoics, who spiritualized the notion of the retreat as anachoresis. A retreat into the country became a spiritual retreat into oneself, as a daily ritual, not to get in touch with inner feelings or introspection, but rather to reinforce and remember rules of action. So, these positive technologies are also dialectically coupled as a mechanism of ascetic domination as well. Gould never quite realized the renunciation of identity he argued should be an imperative of the artist in cultural life; however, the inscription of mechanisms of domination, such as the increasing divorce from his own body, became more apparent as he executed a near total disappearance from public life. The studio was eventually the only possible mediator between performance and audience. In a letter to an apparent stalker, Adele Knight of Watertown, New York, Gould expressed shock that she had showed up uninvited at his country house in Canada. He asked to be free of bother from the outside

I am not about to change, or further justify my preference for a life of solitude.... I do believe that we may all reasonably expect a life free of intrusions from outside, and, I am, therefore, going to ask you to reconsider very calmly the nature of your actions these last several years and to refrain all together from your attempts to visit or contact me [32].

Gould's striving for the "cloak of anonymity" that the recording studio provided was realized in an increasingly profound sense as his disengagement from the world continued. In 1976 he took up part-time residence at the Inn on the Park, a hotel deep in the suburbs of Toronto (Fig. 4). Up until the time of his death Gould used the hotel as an editing suite and occasional living space in order to work uninterrupted on projects of various sorts. Indeed his withdrawal to the studio was a pioneer move that led toward and ended in the relatively new territory of the bedroom studio, a move foreshadowed in his writings years before [33]. The history of literature and the arts are replete with examples of reclusive artists. The majority have been stories laced with nostalgia, rejection and withered dreams. Very few proactively sought that retreat, with the view that a new technology would afford greater expressive capabilities and new aesthetic possibilities while offering a simultaneous life of solitude. This was a route to the "clinical ecstasy" of performance by other means. Of course there were costs: the unrealized utopian aspirations and the lurking creative desires of studio engineers.

#### Acknowledgment

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#### References

- 1. For writings on the studio, see John Mowitt, "The Sound of Music in the Era of Its Electronic Reproducibility," in Richard Leppert and Susan McClary, eds., Music and Society: The Politics of Composition, Performance and Reception (Cambridge Univ. Press, 1987); Susan Schmidt Horning, "Engineering the Performance: Recording Engineers, Tacit Knowledge and the Art of Controlling Sound," Social Studies of Science 34, No. 5 (2004); Louise Meintjes, Sound of Africal: Making Music Zulu in a South African Studio (Durham: Duke Univ. Press, 2003).
- **2.** Edward W. Said, "Glenn Gould, the Virtuoso as Intellectual," *Raritan* **20**, No. 1 (2000) p. 4.
- **3.** Glenn Gould, "What the Recording Process Means to Me," transcript from CBS Masterworks July 26, 1982, National Archives Canada (NAC), Glenn Gould Fonds, MUS 109 16:76.
- **4.** Gould [3]
- **5.** Glenn Gould, "An Argument for Music in the Electronic Age" (1964), in Glenn Gould and John Roberts, *The Art of Glenn Gould: Reflections of a Musical Genius* (Toronto: Malcolm Lester Books, 1999) p. 230.
- **6.** For one variant of the metaphysics of recording, albeit in the (degraded) digital versus (more present) analogue context, see Jonathan Sterne, "The Death and Life of Digital Audio," *Interdisciplinary Science Reviews* **31**, No. 4 (2006).
- 7. Gould and Roberts [5] p. 231; Nicolas Collins, "Ubiquitous Electronics: Technology and Live Performance 1966–1996," *Leonardo Music Journal* 8 (1998) p. 30.
- 8. "La technologie au service de l'extase dionysiaque," in Ghyslaine Guertin, *Glenn Gould Pluriel* (Verdun, Qc: L. Courteau, 1988) p. 235.
- **9.** IRCAM publicity ca. 1976–1981, quoted in Georgina Born, *Rationalizing Culture: Ircam, Boulez, and the Institutionalization of the Musical Avant-Garde* (Berkeley: Univ. of California Press, 1995) p. 1.
- 10. Gould was a catalyst and to be the subject of an unpublished manuscript on this issue: National Archives of Canada, McLuhan Fonds, M631 D156 V99:24.
- 11. Glenn Gould, "The Grass is Always Greener on the Outtakes," *The Glenn Gould Reader,* Tim Page, ed. (London: Faber and Faber, 1988) p. 358.

- 12. Quoted in Kevin Bazzana, Wondrous Strange: The Life and Art of Glenn Gould (New York: Oxford Univ. Press, 2004) p. 233.
- **13.** Brian Eno, "The Studio as Compositional Tool," in Christoph Cox and Daniel Warner, eds., *Audio Culture* (London: Continuum, 2004).
- 14. Colin Symes, Setting the Record Straight: A Material History of Classical Recording (Middletown, CT: Wesleyan Univ. Press, 2004) p. 56.
- **15.** Glenn Gould, "The Prospects of Recording" in Gould [11] p. 338.
- **16.** See Andy Hamilton, "The Art of Recording and the Aesthetics of Perfection," *The British Journal of Aesthetics* 43, No. 4 (2003).
- 17. Gould [11] p. 381.
- **18.** Pierre Boulez, "Technology and the Composer," *Leonardo* **11**, No. 1 (1978) p. 60.
- 19. Gould [11] p. 369.
- 20. Kevin Bazzana, Glenn Gould: The Performer in the Work: A Study in Performance Practice (Oxford: Oxford Univ. Press, 1997) pp. 247–252. For more on Gould's general approach to recording, see pp. 238–252, as well as Andrew Kazdin, Glenn Gould at Work: Creative Lying, 1st Ed. (New York: Dutton 1989),
- **21.** Kazdin [20] pp. 19–35.
- 22. Bazzana [12] p. 303.
- **23.** See Horning [1]; Mark Katz, Capturing Sound: How Technology Has Changed Music (Berkeley: Univ. of California Press, 2004) p. 44.
- 24. Gould [15] p. 343.
- 25. Gould [15] p. 346.
- 26. Kazdin [20] pp. 48, 56.
- **27.** Brian Eno, "The Revenge of the Intuitive," Wired 7, No. 1 (1999).
- **28.** NAC, Glenn Gould Fonds, MUS 109, Keepers/18. Bazzana [20] pp. 247–252.
- **29.** Gould [3].
- **30.** Bazzana [12] p. 237.
- **31.** Michel Foucault et al., *Technologies of the Self: A Seminar with Michel Foucault* (Amherst: Univ. of Massachusetts Press, 1988) p. 18.
- **32.** Letter dated 19 September 1966. NAC, Glenn Gould Fonds, MUS 109 31:30:31.
- **33.** "Forgery and Imitation in the Creative Process' in Gould and Roberts [5] 219.

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