

translating into the 'revelations' made possible through an oscillation between traditional female voice types. (The undeviating hardness of Memphis Minnie's voice, by comparison, seems to give notice that there is no intention to enter into any such dialogue.)

Finally, and most significant, it is important to emphasize that traditional notions of gender and 'sexuality' are not phenomena that are 'given' or 'natural', phenomena that 'popular' music either expresses or controls.⁴⁵ If, as I suggested above, traditional notions of gender and 'sexuality' have essentially been constructed by men in the interstices between culture and nature in order to control culture through nature, then they are notions that remain eminently negotiable. 'Popular' musicians do not as a consequence inevitably find themselves in a position of relating to something over which they have no influence in giving expression to senses of individual identity. Traditional notions of gender and 'sexuality' can be renegotiated by 'popular' musicians, and this, as Frith⁴⁶ has pointed out, is a process that became increasingly common during the 1970s.

Negotiation is the key concept in understanding how the politically personal is articulated from within the internal processes of music. There is nothing technically immanent about the meanings and relevancies analyzed in this paper as being articulated from within the qualities and relationships of pitch, rhythm and timbre. As material phenomena the various technical characteristics of music may both favor and constrain the articulation of certain cultural and social messages, but they cannot determine them. The technical characteristics of music in this sense represent little more than sites over and through which power may be mediated textually. The theoretical model elaborated in this paper remains nothing more than that: a basic and partial map of *what*, stereotypically, is being negotiated by performers *and* consumers alike, over and through the different technical characteristics of music. No performers, not even the ones mentioned here as being associated with traditional gender/timbre types, simply and passively reflect a given gender type or notion of sexuality any more than individuals simply and passively consume them. The deconstruction of meaning in music requires not only a catholicity of theories and methodologies, but also a variety of entry points.⁴⁷ However, without the elaboration of some initial theoretical models, it is difficult to conceive a way into understanding the technical characteristics of music as sites for the textual mediation of politically personal power.

⁴⁵ This point is made by Simon Frith in 'Confessions of a rock critic', *New Statesman*, 110/2840 (1985), pp. 21-3.

⁴⁶ Ibid.

⁴⁷ John Shepherd, 'Music consumption and cultural self-identities: some theoretical and methodological reflections', *Media, Culture and Society*, 8 (1986), pp. 305-30.

The sound of music in the era of its electronic reproducibility

JOHN MOWITT

With every tool man is perfecting his own organs, whether motor or sensory, or he is removing the limits to their functioning. In the photographic camera he has created an instrument which retains the fleeting visual impressions, just as the gramophone disc retains the equally fleeting auditory ones; both are at bottom materializations of the power he possesses of recollection, his memory.

Sigmund Freud

Is it 'live' or is it Memorex?

To emphasize the importance of reproductive technology when analyzing the social significance of music is to privilege the moment of reception in cultural experience. What follows is organized around the acknowledgment of such a moment. Put succinctly, reception has acquired its analytic importance as a result of socio-historical developments within the cultural domain. I can best illustrate this by turning to a concrete example – an example that will indicate why music is a decisive reference point for an understanding of these developments. My aim in the analysis of this example will be to introduce the category of a structure of listening, on the basis of which I will argue for the priority of reception within the social determination of musical experience. Central to this argument is the notion that subjectivity acquires its irreducibly social character from the fact that experience takes place within a cultural context organized by institutions and practices. Today, these include institutions that technically fuse the contexts of cultural production and reception. I will elaborate this in terms of the problem of the place of memory in musical experience – a problem which has come to receive its strongest formulation within the phenomenological tradition. By drawing on a reading of the psychoanalytic account of memory, I will also reflect in detail on the social constitution of experience which is conspicuously underdeveloped in phenomenology. Once the socio-technological basis of memory is elaborated and used to establish the sociality of music, I will address the political issues raised by

this development. By turning to the debates within critical theory, I will not only be able to specify these issues, but I will be able to sketch out the emancipatory dialectic of contemporary musical reception.

A recent advertising campaign for a major cassette tape producer underscores the key socio-historical developments that have shaped contemporary musical reception. I am thinking of the Memorex Corporation's well-known television commercial featuring Chuck Mangione and Ella Fitzgerald that centered on the interrogative phrase, 'Is it live or is it Memorex?' A brief reconstruction of the commercial's narrative and *mise en scène* will enable me to unpack the main points of my illustration.

The scene is a recording studio. The television audience arrives upon the scene just as the final cadence of Mangione's 'hit' fades. Two acoustic spaces are joined: the space of the recording and the space of the commercial. A cinematically fostered structure of identification situates us in the control room of the studio along with Fitzgerald who is watching and listening to the session. The juncture of acoustic spaces means that both Fitzgerald and the television audience are listening to Mangione's piece through the playback monitors in the control room. A voice-over narrator gives us the details of a test that is going to be conducted to establish the quality of the Memorex product.¹ Fitzgerald is to turn her back on the control room window and, simply by listening once again to the monitors, determine whether the music she is listening to is 'live' or Memorex, that is, electronically reproduced. Because of our proximity to her in the narrative space, we are being invited in effect to submit to the test and its conclusions as well. The melodic 'hook' of Mangione's piece returns on the audio track, Fitzgerald indicates uncertainty, and Mangione and his group resolve her dilemma by screaming to her from within the studio, 'It's Memorex!' The voice-over narration reaches closure with the requisite repetition of the product's name embedded in the memorable phrase: 'Is it live or is it Memorex?'²

¹ The test organizing the Memorex commercial strongly evokes the 'blindfold test' that has been a feature in the monthly music magazine *Downbeat* for decades. Used as a forum for critical exchange, the 'blindfold test' pits a recognized musician against a record whose jacket has been kept hidden. The featured musician listens to the record and is then asked to identify the performers while commenting on their performances. Crucial to one's performance in the test is the ability to remember someone's 'sound'. Beyond the fact that musical reproduction is central to this test, it is important to stress that musical recognition is again situated here within the opposition between looking and listening.

² Prior to the advertisement featuring Ella Fitzgerald and Chuck Mangione, Memorex ran a commercial that featured Fitzgerald and Melissa Manchester. Two fundamental differences characterized the earlier example. First, the generational scheme was reversed: Manchester listened to two versions of a performance by Fitzgerald. Second, the race and gender of the 'original' were respectively transformed and reversed: a white woman listened to a

Many themes and problems have been paraded before our eyes and ears: memory, fidelity, production, reception, music, looking and listening. In regard to these, the issue at stake in the ad is not, in fact, whether 'The First Lady of Song' is really deceived by the King of Memory (Memo Rex). Our basic precritical cynicism assures us that this is not worth caring about because we know that Fitzgerald is being paid by the Memorex Corporation to appear in the commercial. Instead, what made this commercial and its slogan one of the most successful in the industry was its accurate and reassuring evocation of a contemporary structure of listening, a structure that is now in decline. Detailing this structure will allow me to justify the importance I have attached to musical reception.

The recording studio is a cultural facility whose existence testifies to the technological advances that made the present priority of cultural consumption over cultural production possible. The social fact that more people listen to music rather than play it derives, in part, from the cultural impact of the operation of this facility. At the very core of the studio reside repetition and reproducibility. Indeed, in the contemporary musical world (and this is not restricted to the West) repetition now constitutes the very threshold of music's social audibility. In actual recording practice this phenomenon has penetrated musical material to the point where performances themselves are immanently shaped by both the fact and the anticipation of repetition.³ Moreover, recording has profoundly altered the improvisational idioms in music essentially by providing them with a form of notation. Besides making it possible to study the 'scores' of jam sessions, reproduction – particularly in these instances – restricts interpretation to the recorded notation of specific performances of the piece. While this can be seen as contributing to the musicological temptation to reduce interpretation to execution, it is also important to recognize that the replacement of scores with records (and tapes) has been an indispensable component of the explosion in 'nonprofessional' composition.

Significantly, in the Memorex commercial we encounter music in the studio, ostensibly the site of its production. But consider again the drama that unfolds there. The primary reason Chuck Mangione appears in the ad is that he and his music are recognizable. They are recognizable – and

black woman. While the reversal of the generational scheme in the second commercial introduced the appropriate but unorthodox theme of an inverted temporality (the younger man coming before the older woman), its recoding of the 'original' invoked a tradition begun in the recording industry by RCA Victor's slogan, 'His Master's Voice'.

³ I am thinking here, first, of the relatively common recording practice of splicing different takes together to assemble the 'right' performance, where repetition establishes the very texture of the recorded surface; and second of the well-known temporal restraints that organize composition around the anticipated strictures of the radio 'plugging' format.

therefore commercially valuable – because of the ‘plugging’ mechanism made possible by the impact of recording on musical performance. Mangione’s very presence then derives from the location in which we find him. What is more important, though, is that by joining the two acoustic spaces I have delineated, the ad fuses our *recognition* of Mangione’s ‘hit’ with a representation of the moment of its original inscription. What could be reduced here to an instance of mere temporal deception can be more fruitfully read as an indication of the radical priority of reception. The ad does not merely record a moment of musical production: it registers the social construction of music. To clarify this we need to re-enter Fitzgerald’s dilemma.

When we join her she has just witnessed a ‘take’. Together we are then confronted with another performance of Mangione’s piece. This is a test. We have to remember what the performance our eyes told us was ‘live’ sounded like and compare that with what subsequently comes over the playback monitors for fidelity. Who or what controls Fitzgerald’s memory and, therefore, her access to the telling difference in musical listening? Clearly it is the recording facility itself, since she is represented as never having heard Mangione’s piece except as it has been mediated by the recording apparatus. But what has happened to those of us who took up the invitation to share her dilemma? I believe we end up baffling ourselves. The ad presents us with the fact that even a Black musician, who in our culture is still deemed genetically (rather than culturally) rooted in music, cannot tell the difference between a sound and its reproduction. But we screen ourselves from a recognition of the electronic colonization of listening by cynically consuming the *spectacle* of our fetishized listener’s failure. In short, following Fitzgerald’s example, we resort to listening with our eyes and reducing the qualitative significance of musical expression to the technical perfection of its reproduction. Put more emphatically, the baffle that protects us from having to acknowledge our ‘loss of hearing’ becomes a concrete visual (Baudelaire might have said ‘synaesthetic’) supplement to listening. As such, the scandal of contemporary hi-fidelity is not that one cannot actually hear it, but that we persist in regarding the perfection of listening as essentially beyond all forms of social determination.

If recording organizes the experience of reception by conditioning its present scale and establishing its qualitative norms for musicians and listeners alike, then the conditions of reception actually *precede* the moment of production. It is not, therefore, sufficient merely to state that *considerations* of reception influence musical production and thus deserve attention in musical analysis. Rather, the social analysis of musical experience has to

take account of the radical priority of reception, and thus it must shift its focus away from a notion of agency that, by privileging the moment of production, preserves the autonomy of the subject. My argument, therefore, develops on the basis of two complementary assertions: (1) that individuals are made up of the society their associations produce and (2) that human subjectivity, as a general structure of experience, is socially engendered. The Memorex ad can serve as a convenient point of reference to highlight the problems that subjectivity raises when its authority is no longer taken for granted.

In the ad Fitzgerald is not shown hearing; she is shown listening, that is, paying a particular sort of attention to the performance of Mangione’s ‘hit’. What distinguishes her attention from mere hearing is its interpretive character – she is trying to make sense of what she hears. Barthes and Havas, in their essay entitled ‘Listening’, argue that it is precisely in the activity of interpretation that what distinguishes the ‘human’ from the ‘animal’ arises within the auditory realm.⁴ It is certainly fair to say then that Fitzgerald recognizes herself as a human subject as she listens. But I can be more specific than that. Meanings not only occur to her, but her identity as a listener arises where these meanings occur. During the televised test Fitzgerald is listening to one set of sounds (a recording) while trying to remember another (a performance). As such, a human faculty, memory, is being solicited and delimited within the commercial. Significantly, at the very point where Fitzgerald’s memory is shown to lack sufficient discriminating power, its proper functioning is at once defined (the flawless retrieval of an origin) and taken into custody by a facility upon which she, as a recording star, is obliged to rely for proper self-recognition. What is at stake here is less a particular memory than memory as such, since the commercial organizes her acts of listening around the philosophically charged abstractions of recollection and knowledge. That the commercial produces an experience of a faculty around which the subject organizes him- or herself – an experience which includes a specific technical and therefore social mediation – indicates how deeply experience is organized by the social process.

There is one last feature of the commercial’s presentation of the structure of listening that requires elaboration: the conspicuous subordination of listening to looking that coincides with the subjugation of perception by the King of Memory. The Memorex Corporation has to find a way to manage the following problem: if Memorex is as good as it is claimed to be,

⁴ Roland Barthes and Roland Havas, ‘Listening’, *The responsibility of forms*, trans. Richard Howard (New York, 1985), pp. 245–60.

then what good is the original? The original becomes necessary and therefore valuable solely as a means of notarizing the copy. However, if listening cannot be trusted to differentiate between the original and the copy, how are we to perceive the validity of the original's notarization of the copy since the aural original might always already be the copy from which it can no longer be aurally differentiated? This difficulty is resolved in the ad by invoking the priority of looking. Fitzgerald knows that the first time she listened she was listening to the original performance because she watched it. The television audience knows that Memorex can replace the original, not because they heard it – that would have been impossible given the actual listening conditions – but because they saw that their representative could not tell the difference. The commercial's producers were in no danger of compromising themselves here because the ad is merely consolidating a social experience of the hierarchy of senses that came into being with the hegemony of typographic culture and that continues to ground the modern subject. That is, since the seventeenth century sight has acquired ever more primacy over hearing in the West.⁵ The commercial addresses us as though we were subjects who should recognize ourselves in this hierarchy of senses. In recognizing ourselves as the addressees of the ad, we implicitly affirm that we must be the ones whose aural memories have come to rely on a prosthesis that can be seen but not heard.

Despite my declared aims, I have not really addressed the fact that Fitzgerald and the television audience are listening to a piece of music. It is thus time to remedy this. What I have stressed is that music, as an organization of noise or sound, arises within the structure of listening I have outlined. Music's social significance derives from the role it plays in the stabilization of this structure, that is, how it articulates and consolidates structurally necessary practices of listening. By sanctioning specific technical mediations of listening as subjectively normative, musical reception supplies the social order sponsoring such mediations with an experiential confirmation. There is therefore a political issue here which I have yet to pose adequately: an issue having to do with the concrete character of the social order that stands confirmed within the contemporary structure of listening. This will be easier to do once the proper context has been established. Most immediately then, music needs to be characterized in a manner that enables us to understand how it can meet these rather general social demands while at the same time providing in its texture the details that occasion listening pleasure. Such a characterization is provided in

⁵ Donald Lowe, *The history of bourgeois perception* (Chicago, 1982), chapter 6. There is also an important summary of the issues at stake here in the introductory chapter.

Jacques Attali's *Noise: the political economy of music*, where he writes, 'All music, any organization of sounds, is then a tool for the creation or consolidation of a community, of a totality.'⁶ While this formulation clarifies the tremendous theoretical importance given to music by Attali, it does not clarify the way in which it belongs within the context I have established for it. We still need to know why the structure of listening evoked by the Memorex Corporation was organized around a piece of music rather than a fragment of ambient noise no less 'live' than Mangione's 'hit'. Before pursuing this, more concentrated scrutiny must be devoted to the conceptual series: memory, music, community. Only then will it be possible to take up the socio-political questions raised by my title.

The stuff of which memories are made

Five years before he perished at Buchenwald, Maurice Halbwachs wrote 'The collective memory of musicians' (1939) which formed part of an extended inquiry into the collective character of human memory in general.⁷ Characteristic of all of Halbwachs' work on memory was the effort, explicitly informed by Bergsonian phenomenology and Marxism, to situate a properly subjective faculty deep within the social process. The consequence of thus situating subjectivity was that 'society' was reconceptualized beyond the limits of positivist sociology. Though very few practitioners of cultural criticism have paid serious attention to this short text,⁸ its framing of the analysis of music is significant to the development of my position.

Put simply, Halbwachs' essay explores the difficulty and necessity of remembering music for performers and listeners alike. The structure of his argument is typical of his work. He first sets out to show that memory is fundamental to music; he then illustrates how musical memory is necessarily collective or social; and he concludes by arguing that music, even in its transcendent sublimity, is a social experience. Since I plan to examine certain points of his argument, I will reconstruct a few of its key elements.

⁶ Jacques Attali, *Noise: the political economy of music*, trans. Brian Massumi (Minneapolis, 1985), p. 6. The entire chapter entitled 'Repeating' is worth consulting if one is interested in another analysis of the issue I am examining in this paper.

⁷ Maurice Halbwachs, *The collective memory*, trans. Francis J. Ditter and Vida Yazdi Ditter (New York, 1980), pp. 158–86.

⁸ The exception here is Alfred Schütz who, in his 'Making music together', *The collected papers of Alfred Schütz* (The Hague, 1964), II, pp. 158–78, rather polemically differentiates himself from Halbwachs only to settle for a phenomenologically abstract account of the specifically social character of music.

What justifies the importance Halbwachs attaches to music in this context is the opposition he establishes in the opening of the essay between linguistic signs and musical (or, perhaps more generally, sonic) signs. Memory of linguistic signs is facilitated by our daily use of the language from which they derive and by the practice of writing which, for reasons I will later allude to, Halbwachs does not regard as a mere derivative of language. The ordinary use of language establishes conventions which restrain the effects of the arbitrary relation between the signifier and the signified, making communication possible. According to Halbwachs, musical signs, though they can and must be notated, do not enter into or derive from a language whose daily use has stabilized their significations. They are, therefore, harder to remember and retain, but precisely because of this, memory is all the more fundamental to musical communication. What is meant here is that, since musical signs refer primarily to the context of their own utilization, memory is indispensable for the structuring of this context and the reception of the significations it authorizes. One thinks here of Adorno's quip that, 'structurally, one hears the first bar of a Beethoven symphonic movement only at the very moment when one hears the last bar'.⁹ Memory is not only necessary for this type of listening; its very capacity is informed by these demands. These are, in fact, the sorts of demands that oblige Halbwachs to insist upon the importance of musical notation, since he finds it doubtful that either performer or listener could retain the relevant contextual markers without a complex mnemonic device. Reluctant to treat either music or memory as a pretext for the other, Halbwachs grounds them both in the spiral of reproduction and recognition.

In order to sustain his focus on the musician, Halbwachs has to locate the listener (even an 'untrained' one) within the musician's experience of memory. He does this through recourse to the Bergsonian notion of a 'schematic model'. At issue here is the following: when a listener retains from a piece of music something that might serve as the basis for articulating the piece's meaning, Halbwachs argues that this is due to the listener's ability to reproduce (typically through humming) the traces left in his or her brain by the musical signs. The configuration of these traces is what serves as the schematic model for the remembrance of the piece. The more times this configuration is accurately replicated, the clearer the memory of the piece and the more competent the listener will be to articulate its significance. However, what determines the listener's memory of the piece

⁹ Theodor Adorno, 'The radio symphony: an experiment in theory', *Radio research* 1941 (New York, 1941), p. 116.

is not the brain, but rather the history of the replications of the piece – a history mediated by the listener's relations to others. I will have to consider the impact on this history of a reproductive technology that promises to displace the 'original' musical signs in favor of copies which eternally return as the same. More is at stake here than the mere inscription of improvisational spontaneity.

The ordinary listener's experience differs from the musician's only in degree, and Halbwachs introduces a marvelous metaphorical figure to establish this. In describing performing musicians, he situates them before their scores. Many of them know their parts 'by heart' and refer to the scores only intermittently: many repetitions have necessarily interceded, and the scores can be said to serve as 'material substitutes for the brain'. As with the listener, a particular history and technology of reproduction supplements the musician's memory. After introducing this provocative image of an eccentric (from the standpoint of the classical subject) memory, Halbwachs goes on to compare musical signs to the footprints Robinson Crusoe found while hiking on 'his' island. What authorizes the comparison is Halbwachs' conviction that musical signs, and not merely notated signs, are indices of the action exerted on a performer's brain by the 'colony' of other brains. The significance of these signs arises within the horizon established by this structuring of memory – a memory that is at once fundamental to music and profoundly social. Halbwachs insists that without executed notational commands there would be no action inscribed as a schematic model in the listener's brain. In the absence of this inscription there could be no memory, no recognition and no meaning.

What connects specific actions on the part of musicians to specific notational commands is a code that formalizes and therefore records an intricate social history of conventions. This social history leaves its traces, its footprints, in the brains of musician and listener alike. Memory is, therefore, not only indispensable to music; it is, as it were, 'colonized' by the reception of music. As Attali put it, music is a form of community or, perhaps more strongly stated, the musical organization of memory is a formation of community. This latter point is not emphasized by Halbwachs. In fact, his essay strikes one as peculiarly insensitive to some of its obvious political and perhaps less obvious philosophical implications. (It is curious, for example, that in his discussion of Defoe's novel Halbwachs implicitly associates Friday's footprints with the presence of a 'colony' precisely at the point where he draws on Robinson's experience of an 'other' as a metaphor for collective memory. The specificity of this collectivity is misrepresented in that Robinson is more properly associated with the imposed collectivity of

the colony.) As a consequence, Halbwachs neglects the political questions arising from the social control over the means of cultural reproduction. One should be entitled to ask: Which community is forming in the musical organization of the collective memory, and what is its relation to those technologies that facilitate the exact reproduction of musicians' actions for listeners?¹⁰

In order to broach the political problem whose themes I have been underlining, I want to turn once again briefly, within the context of Halbwachs' essay, to the relation between subjectivity and memory. As I indicated in my introductory remarks about this text, Halbwachs is attempting to situate a properly subjective faculty deep within the social process. But his argument sets aside the specificity of the social collectivity at the core of memory – the subjective corollary to which is his reluctance to question seriously the reduction of the subject to consciousness. In other words, Halbwachs' demonstration stops at the point where individual memory is shown to be dependent on social memory. He fails to consider whether this dependence is not also the precondition for the experience of independence that paradoxically defines the social bond within the bourgeois era. What his essay shows is that the structure of the autonomous subject includes something which is anterior to it – not merely in the sense of coming before it, but in the sense of preconditioning the subject to the point of displacing or preempting it. Halbwachs is content to call this the collective, or society. The fact that the subject's own memory comes *before* his or her consciousness does not shake Halbwachs' confidence in the temporal simplicity of the subject. It could be that Halbwachs' reluctance to confront the political specificity of the collective is due to his sense that the subject he feels himself to be is in no way threatened by its proximity. But in any case, the essay exhibits a version of an omnipotent fantasy, presenting us with a subject that is not merely social, but that is society itself. Against this it should be stressed that music not only brings the subject into relation with the collective memory, but it collectivizes the subject at the level of memory.

Freud, a contemporary of Halbwachs, was less reluctant to draw the consequences of the peculiar anteriority of memory. In fact, in Jacques Derrida's reading of the evolution of the scriptural metaphor in Freud's texts, the memory trace is drawn upon to show how potentially unsettling Freud's model of the psychical apparatus was.¹¹ It was far more unsettling

¹⁰ The political stakes of a particular memory – our memory of the 1960s – is very carefully articulated by Simon Frith, 'Rock and the politics of memory', *The 60s without apologies*, eds. Sonya Sayres, *et al.* (Minneapolis, 1984), pp. 59–69.

¹¹ Jacques Derrida, 'Freud and the scene of writing', *Writing and difference*, trans. Alan Bass (Chicago, 1978), pp. 196–231.

than my epigraph, a citation from *Civilization and its discontents* (p. 38), would lead one to believe. There, the phonograph is treated as an instrumental extension of memory. For Derrida, Freud's mature theory of memory, as embodied in the figure of the 'Mystic Writing Pad', advances the possibility that the subject is itself the prosthesis of a mechanism that precedes it. What authorizes this possibility is Freud's conviction that within the psychical apparatus 'consciousness arises instead of a memory trace'; that is, the subject centers itself in consciousness on the site where memory traces have established the infrastructure for such centering. Derrida designates this uncanny mechanism as 'writing' and argues that 'writing supplements perception before perception even appears to itself'.¹² This is the temporal contradiction of the subject, its displacement by a reproductive apparatus that precedes it. In the final pages of the printed text, Derrida turns his reading of Freud in the direction of those questions Freud refused to raise. Specifically, he takes up the issue of the status of the 'material supplement' to memory that is essential to Freud's discussion of the psychical apparatus. Appropriately, he stresses that this notion not only problematizes the subject, but it obliges us to rethink the 'sociality of writing'. Though his formulations are only suggestively abstract, Derrida does manage to articulate what remained repressed in both Freud and Halbwachs: that is, the socio-technological character of the reproduction that comes before the subject or the social.

With the reintroduction of the concept of a reproduction that supercedes 'life', I have returned to my point of departure. It is time now to open an examination of the thesis I have been assembling: namely, that the contemporary structure of listening, with its dependency on memory, is given its social significance by the reproductive technologies that organize it. This can be done by situating this thesis within a political debate on cultural reception in the era of the culture industry. The debate I am referring to is the one realized in the intertextual field established by Walter Benjamin's 'The work of art in the age of mechanical reproduction' and Theodor Adorno's 'The fetish-character of music and the regression of listening'.¹³

¹² Ibid., p. 224.

¹³ Walter Benjamin's essay is contained in *Illuminations*, trans. Harry Zohn (New York, 1969), pp. 217–51, Theodor Adorno's in *The essential Frankfurt School reader*, eds. Andrew Arato and Eike Gebhardt (New York, 1978), pp. 270–99. Though from a slightly later period the section titled 'Modes of listening' from Adorno's *Philosophy of modern music*, trans. Wesley Blomster and Anne Mitchell (New York, 1980), pp. 197–201, functions as an interesting supplement to the essay on fetishism by introducing two models of what I have called here 'structures of listening'. The reader who consults the later essay will realize that I am working with a somewhat more general notion – one that is less centered in composition as such.

Film/music and the dialectic of aura

When Benjamin and Adorno debated the socio-political significance of mass cultural forms, the technologies of cultural reproduction on which these forms rested were in their infancy. Nonetheless, the intellectual and political integrity of their positions has contributed to the formation of our own alertness to developments they neither knew nor could anticipate. Electronic reproducibility is the name I have given to what they did not yet know.

Benjamin and Adorno confronted and challenged each other most directly on the significance of the opposition between 'contemplation' and 'distraction' proposed by Benjamin for analyzing the cultural experience of reception. In his essay, Benjamin characterized contemplation as the affective state in which the subject receives auratic art. This was because auratic art was embedded in an unproblematic tradition and consummately embodied in a 'masterpiece' whose spatio-temporal singularity obliged one to approach it by way of secular pilgrimage. The experience serving as the basis of the subject's act of interpretation was one of awe-inspiring distance. Because subjects always encountered auratic art in the fabric of tradition (on the wall of a cathedral for example), Benjamin argued that the activity of cultural interpretation was reduced to an absorption of the meaning that arose for subjects in their identification with the power the tradition had over them. The continued celebration of this aesthetic experience, once others became possible, troubled him. (As those who are familiar with the text know, Benjamin had the 'poor taste' to call this experience by its name – fascism.)

Against contemplation Benjamin posed the concept of distraction which was designed to account for the cultural experience of mechanically reproduced art. This was necessitated by the disintegration of the reception conditions that had sustained auratic art – a disintegration precipitated by the emergence of mass culture. Mechanical reproduction, which for Benjamin was paradigmatically embodied in photography and *silent* cinema, made it possible to remove the work of art from its traditional context. Pilgrimage was superseded by 'crowding' as reproduced art enabled several large, socially heterogeneous groups to experience the 'same' work simultaneously. Once the art work lost its traditional footing, the activity of interpretation inevitably began to accentuate the interests that prevailed in the regional contexts of its appropriation. Art's function in the codification of collective memory was reorganized by the increasingly politicized intervention of regional hermeneutic interests within the cul-

tural sphere. Mechanically reproduced art did not, however, only fray the fabric of tradition; it was itself fragmented. Again, film and its organizational principle of the frame was the model here. Because post-auratic art operated in accordance with the principle of the fragment, the subject's reception of it was characterized by distraction. Benjamin did not mean by this that one was unable to pay attention to the work, but rather that one could make sense of it without surrendering to its traditionally sanctioned patterns of identification. Unwilling to abandon significance for the 'play of the signifier', Benjamin emphasized the socially critical character of distraction and the habits of critical literacy that could form under its influence. In a rare discussion of music he in fact designated his own writing as a practice that required the presence of what we would now call 'ambient' music.¹⁴

What impressed Benjamin about cinema was its apparatus and the testimony it bore to the saturation of modern reality by equipment. Though it was nearly impossible to avoid the shock of montage, the cinematic fragment or frame took effect below the threshold of subjective experience. To this extent, the fragment marked one of the sensory boundaries of the post-auratic subject. Through editing, a segmented world could be given the *real* appearance of seamlessness. By the same token, as a cultural apparatus, cinema embodied the adjustment of reality to the social presence of the masses. It was, in other words, the technical realization of a political demand. Distraction, therefore, was the affective state in which a proletarianized subjectivity experienced what could no longer bear the name 'art'.

Adorno accepted the terms of Benjamin's argument, but he reversed its conclusions. Surprisingly, Adorno did not even contest Benjamin's advocacy of silent cinema. This is odd because when Adorno collaborated with Hanns Eisler in writing *Composing for the films* during the 1940s, film's role in the standardization of listening was soundly criticized (and it was, after all, listening with which Adorno was preoccupied).¹⁵ Granted, there is a marked difference between silent and sound film, and I will have occasion to take up the problem of the division between looking and listening more directly later. This and other oddities notwithstanding, Benjamin and Adorno contradicted one another directly. The convergence of terms only intensifies the suspicion that their positions are aptly opposing views of an experience that solicits both responses but that resists thematization from either side. I would suggest that this experience has to do with the post-Renaissance structure of the hierarchy of senses (seeing

¹⁴ Walter Benjamin, *Reflections*, trans. Edmund Jephcott (New York, 1978), p. 80.

¹⁵ Hanns Eisler (and Theodor Adorno), *Composing for the films* (New York, 1947), pp. 109–11.

over hearing) grounding modern cultural reception. Adorno's text deserves more detailed consideration before we can decide this one way or another.

Adorno had been tolling the death knell of 'serious' music since the early 1930s. When he responded to Benjamin in 1938, mourning had given way to the melancholia that was to remain his thematic signature. 'The fetish-character of music and the regression of listening' opens with a sketch of what Adorno took to be the necessary theoretical description of the social totality. This totality, which could only be articulated theoretically, authorized the assessment of the cultural significance of any particular practice. Ironically, the fact that the social totality existed nowhere but within critical theory itself (as a necessary analytic category) was a clear intellectual sign of the disintegration of aura – a disintegration Adorno was consciously forced to intensify by persisting in the rigorous elaboration of theoretical discourse.

I will skip directly to Adorno's discussion of the opposition between contemplation and distraction. Without addressing Benjamin's political characterization of contemplation as intellectual fascism, Adorno underscored its dialectical character and reappropriated its positive side, namely, its relation to theoretical reason. He justified this by elaborating the two themes of fetishism and regression. In a virtuosic series of maneuvers, Adorno transcribed Lukács' analysis of reification – wherein the production of commodities is tied to the desocialization of class consciousness – for an analysis of modern (both 'serious' and 'popular') music.¹⁶ Crucial to this project is the demonstration that exchange value, as the front line of capitalist expansion, has reduced music to the status of a commodity. This is not difficult to do with 'popular' music, but Adorno, in homage to Lukács, insisted upon confronting a sociological tradition transfixed by the notion of objectivity with the problem of a general social transformation of subjectivity. He was less interested in the conditions of 'popular' music production and more interested in what he liked to refer to as the 'infantilization' of all listening subjects. The demonstration of the commodity character of music focused on the 'babytalk' used by 'popular' music as its language, which affected the reception of even 'serious' music. Significantly, at least with regard to the dispute with Benjamin, this demonstration hinged on an interpretation of the cultural significance of the fragment or detail.

Following Benjamin's presentation of the problematic of technical reproduction, Adorno argued that 'plugging' and what he later called 'standardization' – both examples of the incursion of exchange value within music –

¹⁶ Georg Lukács, *History and class consciousness*, trans. Rodney Livingstone (Cambridge, 1968), pp. 83–110, and *passim*.

had come to replace the function of musical form in the determination of interpretive value for the details of musical composition.¹⁷ For example, instead of melody taking on its significance as a function of a rigorously conceived musical structure, Adorno argued that it takes on its function from a merely reproductive consideration: namely, the recognizability that allows the regressive listener to identify (with) the familiar but necessarily forgettable 'popular' song. Melody here became a fragment or detail detached from the musical whole. As such, it became the object of distracted listening.¹⁸

Adorno carried this reversal of Benjamin's opposition into the very heart of the human subject through the notion of distracted or 'regressive listening'. With this notion he succeeds in situating even 'serious' music listening within the framework of the 'popular'. What was crucial for Adorno was the recognition that listening, as a sensory and cognitive structure of experience, occurs within the reception institutions organized by the capitalist mode of production. Characteristic of these institutions is their reflection of the fragmentation and exchangeability that defines this mode of production. Listeners are themselves atomized under these conditions even prior to their exposure to music. The fact then that the music predominating under capitalism is itself organized by the principle of the detail means that both the subject and its culture are entering into a regressive spiral. As music is colonized by the commodity form – its use becomes the exchangeability of its uses – listeners regress to the point where they will not listen to that which is not recognizable without first protecting themselves with an inoculation for the exotic. Connoisseurs of 'serious' music cannot help but listen in the distracted manner promoted by the consumer discourse of classical programming and by those musicological traditions that seek paradoxically to rescue music from the clutches of exchange by treating it as the gold standard. That the Wagnerian 'motiv', as a compositional principle reflecting the triumph of the detail, still influences musical composition, is the sign that not just listeners have been

¹⁷ Theodor Adorno and George Simpson, 'On popular music', *Studies in Philosophy and Social Science*, 9 (1941), pp. 17–24.

¹⁸ However much Adorno's impulse towards totalization and the cultural judgments it authorizes strikes one as offensive, the relative merits of such an impulse manifest themselves when one contrasts his analysis of listening with Aaron Copland's. A year after 'The fetish character of music and the regression of listening', Copland published *What to listen for in music* (1939). This text devolves into a 'self-help' guide for the musically perplexed because it sanctifies the problem it seeks to overcome by refusing to analyze it. Though Copland's considerable efforts to democratize listening are not to be trivialized, one should remember that only under questionable ideological circumstances is it primarily the thought that counts. Listening cannot be improved if it is misunderstood. Unfortunately, 'do-it-yourself' repair manuals avoid the issue of planned obsolescence as a matter of principle.

affected.¹⁹ The decay of musical aura and the triumph of distraction within mass cultural experience meant for Adorno that listeners could no longer make sense of music's portrayal in its own materials of the social contradictions that isolated it. Instead, music's isolation was seized upon as the guarantee of its transcendental stature. The familiarity of 'popular' music does not save it from the incomprehensibility that bonds it with its revered twin.

It is on the basis of this analysis of the contemporary listener that Adorno advocated the cause of Schoenberg whose inaccessible style was the guarantee of his integrity. This was the only option for 'serious' music that sought to avoid the ravages of the commodity form. Those who have struggled to listen to this music know that even rapt contemplation is inadequate. It is, in many respects, a notated music: that is, a music meant to be seen and not heard. As such it is curiously synchronous with the structure of listening evoked in the Memorex commercial. Setting this aside for the moment, it is clear that Adorno preferred the peculiarly classical isolation of the avant-garde to Benjamin's proletarianized public.

Resisting the impulse to choose sides allows one to recognize the profoundly political character of the differences between Adorno and Benjamin. These irreducible differences notwithstanding, what unites the two positions beyond their idiolect is the strategy of politicizing the social organization of the subject's boundaries. Significantly, the subject's boundaries are situated, in both texts, on the terrain of cultural reception which is organized around the experience of the fragment or detail. In Benjamin, it was the fragment as film frame that both shocked and radicalized subjects while eluding them. In Adorno, it was Schoenberg's austere retotalization of the fragment in the tone-row that radicalized listeners by becoming unlistenable. For both writers the question of which cultural processes precede – and therefore set the limits of the subject – is the crucial one. Though, on the face of things, they would appear to be interested in two different sensory and cognitive boundaries (looking as opposed to listening), I have already suggested that even Adorno's position quietly concedes the priority of looking within the contemporary hierarchy of the senses. Both distraction and contemplation, however otherwise opposed, are meant to be politically evaluated in relation to the struggle within cultural reception over the constitution of a subject for whom looking comes first. This is the subject of theory (a term which derives from the Greek term for

¹⁹ Theodor Adorno, *In search of Wagner*, trans. Rodney Livingstone (London, 1981), pp. 43–61. In this chapter Adorno even goes so far as to associate the 'motiv' with the compositional principle that prevails in film music. See p. 46 in particular.

theatrical spectatorship), a subject for whom writing – as an irreducibly visual phenomenon – was the indispensable 'material supplement' to memory. It is becoming increasingly apparent that this subject is not the only one worth fighting for. This recognition definitively marks the debate between Adorno and Benjamin as dated, but not because it has become obsolete. Rather, this debate seems untimely because the advances it sought to realize have become even more urgent, since the social order confirmed in our experience of the contemporary modes of cultural expression is increasingly one delimited by corporate interests. With these exemplary instances of the politicization of reproductive technologies in hand, I can now examine the fragment's relation to the contemporary mode of electronic reproduction.

Bits and pieces

At the first New Music America Festival sponsored by The Kitchen in 1979, British composer Brian Eno gave a lecture on the topic, 'The studio as compositional tool'.²⁰ Aside from his fascinating remarks about the effects of recording on music listening and composing, the general question examined by Eno indicated the extent to which certain of Adorno's concerns were justified. The recording studio had become an instrument with its own peculiar musical idiom – an instrument that was also its own means of reproduction. As a consequence, repetition and the precondition for 'plugging' had advanced to the point of entering the musical material itself. For example, tape 'loops' in Eno's own work have come to be used for establishing everything from rhythm to chromatic texture, and while he did not refer to the practice of 'playing' or 'scratching' records characteristic of rap music, he could have. In most of his late discussions of 'new music', Adorno criticized this type of development from an uncharacteristically romantic position: one that exempted the opposition between conception and realization from the otherwise obligatory compositional demands for total musical integration.²¹ As long as aura held out the promise of the

²⁰ Brian Eno, *Downbeat* (July, 1983), pp. 56–7 and (August, 1983), pp. 50–2.

²¹ Adorno discusses this problem even in the 1930s. See 'On the social situation of music', trans. Wesley Blomster, *Telos*, 35 (Spring, 1978), pp. 124–38. Two examples of his later writing specifically devoted to the problems of technology and technique in the new music are, 'Music and technique', trans. Wesley Blomster, *Telos*, 32 (Winter, 1977), pp. 78–94, and 'Music and new music: in memory of Peter Suhrkamp', trans. Wesley Blomster, *Telos*, 43 (Spring, 1980), pp. 124–38.

mind's autonomy, Adorno was prepared to support it, even when doing so committed him to essentialist musical fantasies. What remains undecidable and therefore decisive is whether the developments cited by Eno are the consummation of the regressive tendencies identified by Adorno, or precisely the developments whose theoretical articulation enable us to understand that the technical penetration of music is a necessary development in the present effort to formulate a critical theory of society.

During the 1970s, the Sony Corporation introduced the Walkman cassette tape player. This device offers maximally portable hi-fidelity to listeners who are, through its use, radically reindividuated while they collectively recontextualize 'masterpieces' as (among other things) the soundtracks for health routines. In effect, everything that Benjamin had defined as the revolutionary features of mechanically reproduced art is, if not contradicted, at least neutralized by the Walkman. The same might be said about television which is a device closer to the cinematic apparatus. It is nonetheless difficult to conclude that these historical developments entitle one to regard the technologies of mass culture as constitutive of fascistic subjectivity. On the contrary, our ability to theorize this possibility despite the hegemony of mass culture, underscores an aspect of the cultural tradition, *qua* tradition, that Benjamin's historical situation authorized him to set aside.

Taken together, the Walkman and the recording of the recording studio mark developments which in effect confirm the apparently antinomial diagnoses of Adorno and Benjamin by embodying the victory of what each of them opposed in the other. That is, these developments represent simultaneously the appropriation of 'serious' music by the technology of mass culture feared by Adorno and the political co-optation of the social possibilities embedded in our relation to that technology feared by Benjamin. This might suggest, in accordance with a certain dialectical perversity, that the theoretical recognition of the decay of aura – assumed by both writers – arises only once this decay is being reversed. The role of critical theory in this reversal deserves to be elaborated in accord with the reversal's dialectical character – a task far too ambitious to be attempted here. Nonetheless, critical theory should not avoid the task of attempting to articulate the conditions of the restoration of aura, even if it can be demonstrated that doing so involves a conflict of interest. If, as I have implied, aura returns through the systematization of the fragment, it is because its restoration presupposes the shift from mechanical to electronic reproduction.

The social character of the shift to electronic reproduction has been most rigorously addressed by Oskar Negt and Alexander Kluge in their *Öffent-*

lichkeit und Erfahrung.²² In a provocative discussion of the change in the character of the traditional media wrought by the advent of electromagnetic technologies, they show how our daily-life contexts have become the objects of the media conglomerate, an institutional feature of contemporary capitalism. Their argument draws directly upon the Marxian notion that the way in which human beings associate for the purpose of transforming nature into that which satisfies their needs also serves as the organizing matrix for the human production of expressive forms. The media represent specific historical instances of the production and reproduction of expressive forms. As such, they can be correlated with various structural features of the prevalent mode of production that serves as the context for the cultural reproduction of human subjectivity. Towards the end of Marx's introduction to the *Grundrisse*,²³ for example, he argued that the expressive form of oral epic poetry is grounded in the level of control over nature attained by the Greeks. He stressed that the mythological deities central to the epic would lose their phantasmatic power in a world where subjects could fully harness natural forces. In the traditional media, which emerge in conjunction with the industrial harnessing of nature (examples being radio, photography, and cinema), subjects are predisposed towards a particular mode of cultural reception through their exposure to the segmentation and hierarchization of specific sensory tasks that characterized the mode of production within high capitalism. In the new media, which belong to the 'post-industrial' era, the practice of sensory reintegration (exemplified in the supervisory labor of the systems analyst) predisposes subjectivity towards the hegemonic mode of cultural reception. Computer-assisted video art is a good example of a medium that arises within the mode of production characteristic of this era. A dynamic correlation can thus be established between the structural organization of the institutions of media production and the sensory division of labor presupposed and reproduced by the products of these institutions.

For Negt and Kluge this represents a qualitatively new organization of the relationship between cultural production and reception, not merely at the level of structural complexity but at the level of lived experience itself. They argue that the as-yet-unmet and even unimagined needs of subjects are capable of being organized by the solicitations of the 'consciousness industry' to such an extent that what was typically defended by the protest

²² An English translation of this important work is forthcoming from the University of Minnesota Press. To date only one chapter has appeared in English. See Oskar Negt and Alexander Kluge, 'The context of life as object of production of media conglomerates', *Media, Culture and Society*, 5 (1981), pp. 65–74.

²³ Karl Marx, *Grundrisse*, trans. Martin Nicolaus (New York, 1973), p. 110.

of 'technological determinism' is reduced to the status of a collector's item. In short, they identify as a distinctive element of post-industrial capitalism the fact that it has become impossible to separate the subject from the technologies of cultural reception. Any political critique of capitalist culture that has recourse to a non-integrated subject as the agent of social change fails to engage its object. This is not, however, a recipe for political resignation. Negt and Kluge simply insist upon locating the contradictions of experience capable of holding a political charge in the only nature we have left – culture.

Negt's and Kluge's observations concerning the correlation between the division of sensory labor within production and cultural reception invite us to reconsider the contested opposition between contemplation and distraction. Put simply, their conclusions imply that this opposition is a feature of a hierarchy of senses that has been superceded. To argue, as Adorno and Benjamin did, that distraction in looking (at silent film) was progressive while distraction in listening (to 'modern' music) was regressive, belies a commitment to a division among the senses, where what is actually at stake is the sensory and cognitive order of the revolutionary subject itself. If what characterizes the subject today is the reintegration of its senses in the cultural domain, it is perhaps just as fruitless to retain the notion of 'hierarchy' as it is to map organs and faculties onto the opposition between contemplation and distraction. Since the name for aura arose within a reception context dominated by what Negt and Kluge call the 'traditional mass media' and was therefore fastened to the moment of aura's decay, its restoration implies that the question of aura must always be posed anew, even if the question means something different each time. But in what sense can it be said that aura has been restored? My response will take the form of an elaboration of the cultural and political implications of Negt's and Kluge's remarks as they bear on the status of the contemporary fragment.

Consider the most advanced form of the fragment, the bit or binary digit. It is the fundamental organizing structure of electronic information, and it is as indispensable to the surveillance mechanisms of the South African state as it is to the state-of-the-art digital recording techniques and 'simulcast' technologies that flourish in the 'advanced' countries. The bit is structured like a language. It is a doubly articulated sign that acquires its significance or value from within a matrix of differentiated values forming a synchronic system. In the categories of information theory, the bit may be said to represent the maximal rationalization of the noise/information polarity. The severely rationalized structure of the contemporary fragment

facilitates the multiplication and inter-referencing of information systems. There is then a sense in which the bit is the monad come true. The most recent application of bit-centered technology in the domain of music listening, the compact disc player, promises not only to supercede the claims of reproductive fidelity made by Memorex, but to integrate, at the level of a technological continuum, the modes of production, reproduction and reception. When CD libraries match LP libraries, more of the world's music – both quantitatively and qualitatively – will be available for listening than at any other time in history. At that point the contrast between what is 'live' and what is Memorex will be irrelevant. The frayed fabric of tradition will be rewoven with optical fibers and the conditions for auratic reception will be restored.

The problematic aspects of this development are not difficult to enumerate since they are already making themselves felt. The ritual character of auratic art manifests itself in the triumphant cult of technology.²⁴ Simultaneously, the intellectual atmosphere created by this cult has redefined the role of tradition in the administration of cultural interpretation. On the one hand, tradition is now called upon to assure individual interpreters that the meaning they are incapable of assigning to their experience is in fact an accurate reflection of the general meaninglessness of culture. And on the other hand, tradition is invoked to reinforce the pluralistic constraint of repressive tolerance: any meaning an individual assigns to experience is valid provided it immediately renounces all claims of generality. Critical theory responded to these developments by converting the renunciation of generality into a stylistic principle – hence the fascination of Adorno, Benjamin and Horkheimer with the essay and the aphorism. This transformation of critical theory into a vanguard literary practice did not, however, protect it from the developments it sought to elude. The demise of critical theory as a vanguard discourse nonetheless allows one to perceive the possibility of a new collective cultural practice. If Marx could regard the proletariat as a concrete manifestation of theory, then perhaps contemporary music can be seen as a gateway to the new collectivity, since it situates subjects within an emergent structure of listening which offers experiential confirmation of a social configuration.

In closing I will turn once again to Attali's remarkable book. Early in the chapter entitled 'Listening', while sketching the parameters of his project, he argues that it is 'necessary to imagine radically new theoretical forms, in order to speak new realities. Music, the organization of noise, is one such

²⁴ Jürgen Habermas, 'Technology and science as "ideology"', *Toward a rational society*, trans. Jeremy Shapiro (Boston, 1970), pp. 81–122.

form.²⁵ If we connect this citation to the earlier one in which Attali linked music and community, then it is possible to articulate why music emerges as a decisive cultural practice in the social order of the bit.

Electronically reproduced art has radicalized noise by seeking to eliminate it. Standard cassette players and stereo receivers contain the various Dolby formats for noise reduction which operate according to a systematic logic that produces information out of suppressed noise. There are two levels of production here. Musical information is produced out of noise that can be rendered informative through various strategies of signal enhancement – redundancy, for example. And noise, as a *category* of sound, is produced (though at a different level) by what is made to differ from it, namely, information. As a consequence, noise arises everywhere information is produced. With the increasing cultural hegemony of bit-oriented systems, noise even functions to name that which stands opposed to the information system as a whole. The political character of this development is reflected in the history of contemporary music where the fetish of noise reduction has gone hand in hand with the aggressive marketing of distortion boosters and other less obvious instrumental sources of noise. In a reception context increasingly dominated by the media conglomerates, noise is thus proliferated only to be recaptured and channelled in a manner that allows the industry to profit from it. However, this does not result in total control for the industry, because it is operating within a mode of production that continually produces new needs while failing to satisfy those it is ostensibly attempting to meet. This general dynamic has its structural basis in the binary fragment. The 'post-industrial' mode of production, in its effort to convert our life-contexts into usable information, seeks to extend the domain organized by bit-centered technologies. However, just as the production of needs always exceeds the capacity of the mode of production, the production of information always proliferates noise which exceeds the organizing capacity of the bit-centered system. As a collective organization of noise, contemporary music (classical and popular alike) is profoundly marked by this situation. The generality of the impact on music is due to the fact that the production and reception of all music is mediated by the same reproductive technologies. However much two listeners may differ in their tastes, they are likely to share standards of hi-fidelity. Even so, it is certainly the case that only specific producers and consumers of music act so as to realize the critical potential of the emerging structure of listening. It is striking though that those who *do*, typically see

²⁵ Attali, *Noise*, p. 4.

themselves as 'cross-overs' (that is, as members of several of the various communities of performers and listeners).

What characterizes the work of those musicians radicalized by their relation to bit-oriented reproductive technologies is the effort to raise the technical preconditions of their musical material to the level of cultural expression. That is to say, they struggle to make audible the noise/information polarity that both grounds contemporary listening and undermines its present boundaries. When Laurie Anderson played the Orpheum Theater in Minneapolis, she opened her show with an opaque projection of a digital representation of the very lyrics she would soon 'sing' through the Vocoder (a computerized voice synthesizer). Anderson's work, which is only one example among many, can be understood as an attempt to communicate or socialize the general material character of the contemporary mode of reproduction. To the extent that the material character of reproduction currently rests on the boundless noise/information opposition, the effort to socialize it gives socio-political significance to all those musics that have hitherto been listened to as noise. These musics stand forth now as the costs of the canons.

If, as I have argued earlier, subjectivity is engendered within the social process, then there are clear implications for subjects in what has been said here concerning the forms of community that circulate in contemporary music. In analyzing the Memorex Corporation's solicitation of the faculty of memory, I noted that the delimitation of this faculty went hand in hand with a structuring of subjectivity that subordinated the sense of hearing to the sense of seeing. This subordination of hearing permitted the social mediations of listening to become part of the very structure of the competent listener. The structure of listening that arises with contemporary music cannot center itself on a subject ordered by the sensing hierarchy that emerged with the art of memory embodied in printing. This is because the classical subject, whose limits had precise internal and external coordinates, came into being through cultural experiences (like reading to oneself) that have been overrun by the institutional practices and technologies of the current modes of cultural reproduction.

The bit as contemporary fragment relocates the limits of the subject in two decisive ways. Because it is fundamental to a cultural technology that can be used to communicate the material preconditions of reproduction, the bit orientates subjectivity towards what, in this case, makes the experience of listening possible. The form of community that arises within this experience situates the subjects it comprises at their very limits, that is, at the very points where the institutions and practices that precede them

give them shape. Second, because the logic of the bit indicates that the system of information can condition but not determine its outside, the subject that arises under its influence stands within a potentially multicultural field where it is exposed to 'others' who are not the convenient foils of the classical subject. Even if we acknowledge, as we must, that the social order circulated within music performed under the regime of the bit bears a corporate imprint, we need not conclude that this condemns music to a conservative political role, for to do so would be to ignore the specificity of the current mode of reproduction. Since our reception of music cannot escape the institutions and technologies that mediate it, the collectivity which Attali insists takes form within music must then articulate the peculiar logic of the bit – a logic which forces this collectivity into a relation with its technical preconditions and the experiences that necessarily elude it. The subjects that are engendered under these conditions are themselves informed by this double relation: they listen most closely to the noises they do not recognize. Because music takes us in these unheard-of directions it can be understood to function as a cultural practice whose oppositional character derives from its ability to engender subjects who are predisposed towards others. Music's critique of society takes the post-theoretical form of a symbolically constructed collectivity. Here the estrangement and totalization we associate with theoretical discourse return as the social experience of cultural production. At a time when the aestheticization of theory is becoming increasingly prevalent, music has responded by sensualizing cultural politics. I am not sure it is possible to have greater social significance than that.

The structure of listening that confirmed the primacy of looking is in decline, as the Memorex Corporation inadvertently illustrated. What our new organization of memory and its accompanying sensory apparatus will feel like is difficult to define, but is prefigured in Reik's notion of the 'third ear', inspired by Freud, who thought a great deal about memory while listening to others. Rather than an organ, it was a location where listening took place, registering what the speaker had forgotten. In psychoanalysis, what is forgotten gives the speaker his or her identity; as Freud said, 'Where it was, I shall become.'²⁶ Because the syntax of this formulation evokes so strongly the logic of the bit-centered mode of production, it strikes me as a particularly suggestive way to imagine the emerging experience of listening. Music permits us to experience this form of listening through 'ears' that feel more like tangled resonating bodies than the folds of flesh situated

on both sides of the head. If I have likened listening to festive dancing, it is because what is crucially new about contemporary listening is its irreducibly communal character. What joins festive dancing to the psychoanalytic notion of the third ear is the fact that the experience of collective interdependence is precisely what was forgotten by the classical subject.

The memory that will form through the new experience of listening may well enable us to grasp its ongoing relation to the moments of danger described by Benjamin in his 'Theses on the philosophy of history'.²⁷ What threatened memory, according to Benjamin, was the fact that the tradition resulting from its gathering necessarily put memory at the disposal of the ruling classes. In Benjamin's hands, historical materialism was thus forced to confront the fact that the future would be under the control of those who could edit the past. Missing from this discussion of historical materialism, however, was an adequate reflection on the role of the medium of cultural memory in the constitution of historical subjects. What I have argued here is that contemporary music, as an embodiment of memory structured by the bit-centered matrix, obliges memory to register its relation with precisely what threatens it: the material conditions of its communication. However much tradition may endanger memory, if the socially organized inscription of memory preserves the problematic character of its present institutionalization, then subjects may form who expect a different future. The memory produced in this context deserves to be called 'popular', as does the music that organizes it. The problem today, in the era of music's electronic reproduction, is not, as Foucault suggests, that we have failed to decapitate the King of Memory, but that in desiring to do so we continue to locate memory in our heads.²⁸ The continued politicization of music will involve recognizing that the memory it organizes is no longer contained in the minds of autonomous subjects and that, in fact (to paraphrase Freud), we may be becoming who we will be where it is going.

²⁷ Walter Benjamin, 'Theses on the philosophy of history', *Illuminations*, p. 255.

²⁸ Michel Foucault, 'Truth and power', *Power/knowledge: selected interviews and other writings 1972–1977*, ed. Colin Gordon, trans. Colin Gordon, et al. (New York, 1980), p. 121.

²⁶ Sigmund Freud, 'Dissection of the personality', *New introductory lectures*, trans. James Strachey (New York, 1965), p. 80.