Going with the Flow: minimalism as cultural practice in the USA since 1945

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Introduction: life out of balance?

This chapter attempts to sketch a possible response to a series of linked historical and interpretative questions about the minimalist process music of composers such as Terry Riley, Steve Reich and Philip Glass. Where did this repetitive, modular, 'hypnotic' music come from? What is its significance as a cultural practice? And why does this particular practice appear in North American culture at the precise moment it does, around the middle of the 1960s? For most critical commentators, a cultural explanation for musical minimalism might begin with the vicissitudes of avant-garde aesthetic politics; or with a consideration of the counter-cultural upheavals of the 1960s; or, perhaps most seductively of all, with a survey of popular and non-Western musical influences, of (to take a representative sample) jazz, raga, gamelan and West-African drumming, played out in an increasingly globalized and multicultural musical world.[1] Recent critical

1 *Repetitive*, *hypnotic* and *modular* are alternative 1960s and 1970s labels for some of the music that would later be called 'minimalist'. See Michael Nyman, *Experimental Music: Cage and beyond* (London, 1974), pp. 139–71, and Edward Strickland, *Minimalism: origins* (Bloomington and Indianapolis, 1993), pp. 1–10. The countercultural link has been enthusiastically endorsed by the composers of repetitive music themselves, most notably Philip Glass (see Glass as interviewed in William Duckworth, *Talking Music* (New York, 1995), p. 337). The influence of non-Western music on minimalism is a matter of some debate, downplayed by the composers themselves but adduced by legions of critics and scholars, beginning with Tom Johnson in the *Village Voice*: 'The other day someone asked me what I thought was the single most important influence on contemporary music. After mulling over a few possible answers for a moment, I found one which seemed broad enough to answer the question. I said I thought it was the infiltration of non-Western ideas' ('Music for Planet Earth', *Village Voice*, 4 January 1973; reprinted in Johnson, *The Voice of New Music: New York City 1972–1982: a collection of articles originally published in the* Village Voice (Eindhoven, 1989), p. 35).

work on repetitive music has usefully problematized its relationship with African and North-Indian musical models, noting the idiosyncratic and contingent way in which minimalist composers have received these complex traditions.[2] A new generation of scholars has begun to ask more probing questions about early minimalism's political allegiances in 1960s battles over race and repression in the USA.[3]

And yet an even more basic critical framework for minimalist music remains relatively unexplored: however deep and complicated its entanglements with other and counter cultures, minimalism itself is a profoundly American cultural practice. It must have something *positively* to do with the mainstream culture of the industrialized, mass-media society in which it rose to such prominence. There ought to be something 'American' – other than a general liking for mavericks and outsiders – behind the ubiquity of repetitive minimalist music in contemporary American concert life.[4]

To uncover this positive connection, we can begin with a programmatic moment of repetitive music from the 1982 art film *Koyaanisqatsi* by Godfrey Reggio (b. 1940), occurring about 80 minutes in, during the final moments of a 21-minute *perpetuum mobile* on the soundtrack that its composer, Philip Glass (b. 1937), calls 'The Grid'. Over the course of the previous hour, we have seen monumental time-lapse shots of unspoiled American nature give way to environmental despoliation, to images of urban decay and anomie, and finally to a nightmarishly sped-up artificial world of empty, repetitive production and consumption. The climactic moments of the sequence cross-cut between extreme time-lapse and extreme slow-motion cinematography. As the vertiginous tempo shifts and electronic arpeggios approach a disorientating peak, suddenly we see a single American woman, holding two small children, all three completely motionless.

They are gazing, transfixed, at a television set.

We can't see what they are watching; but behind them, in what is clearly a department-store showroom, an entire wall of TVs, accelerated 50-fold through time-lapse photography, spews forth its chaotic overload. Almost immediately the visual field is filled by a single TV screen, first showing a video game and then, for what seems like an eternity but is only 30 seconds, a raging torrent of early-1980s US network programming. The shot seems longer, because stop-motion filming compresses hours

2 Jeremy Grimshaw, drawing in part on previous work by David Claman, has noted this dynamic in the ongoing minimalist project of La Monte Young; see Chapter 3 of *Draw a Straight Line and Follow It: the music and mysticism of La Monte Young* (Oxford, 2011). Martin Scherzinger has critiqued 'Africanist' readings of Reich's music from a (South-) African perspective; see 'Curious Intersections, Uncommon Magic: Steve Reich's *It's Gonna Rain*', *Current Musicology*, 79/80 (2005): pp. 207–44.

3 Exemplary in this regard are Sumanth Gopinath's 'Reich in Blackface: *Oh Dem Watermelons* and radical minstrelsy in the 1960s', *Journal of the Society for American Music*, 5/2 (2011): pp. 139–93; and 'The Problem of the Political in Steve Reich's *Come Out* (1966)', in Robert Adlington (ed.), *Sound Commitments: avant-garde music and the sixties* (Oxford, 2009), pp. 121–44.

4 *Maverick* appears to be the preferred American term for its 'native' *avant-garde*, especially the experimental and minimalist wing; thus the San Francisco Symphony's ongoing festival series, *American Mavericks*. Michael Broyles, *Mavericks and Other Traditions in American Music* (New Haven, 2004) presents a narrative of the 'maverick' aesthetic in American art music in which minimalism features prominently.

of broadcast time, dozens of channels, literally hundreds of programme segments and advertisements, into a few frenzied moments. In this negative climax, the overall anti-technology, anti-mass-media message of the film is made brutally, almost pornographically visible.[5]

Glass and Reggio later backed away from the eco-political reading of *Koyaanisqatsi*; they both took the position that *all* its images of 'life out of balance' – assembly lines, rocket launches, cereal advertisements, televangelists, sped-up footage of commuters boiling out of Grand Central Station like ants, even the soul-crushing long shots of Los Angeles freeways broiling in smog and traffic – should be looked at abstractly, in counterpoint to the repetitive soundtrack, as an aesthetic exercise in pure pattern and form. Removing the somewhat dated counter-cultural filter also allows a more suggestive equivalence with mainstream US culture to make its case directly to the viewer: wittingly or not, the movie shows us through simple juxtaposition how the experience of 1970s network television – in particular, the relentless, torrential aspect of that experience isolated and magnified by Reggio's time-lapse photography – *feels the same* as the experience of whirring, repetitious figuration and endlessly cycling harmonic progressions in Glass's music. In this chapter, I will examine the historical and cultural implications of the formal claim that repetitive musical minimalism figures in sound the phenomenology of 1960s and 1970s commercial-network television in some detail. As we shall see, a powerful isomorphism of phenomenology and affect links pulse-pattern minimalism with television – the single dominant cultural form of the late twentieth century – to the degree that changes in the mode of television production and consumption can be correlated with the historical facts of minimalism's rise and fall as a cultural practice.

Television as a Process: the phenomenology of broadcasting 'flow'

The most influential scholarly attempt to consider network television formally was inspired by an actual experience of broadcast overload much like the one evoked in *Koyaanisqatsi*; as recounted by British cultural theorist Raymond Williams in 1975, it happened at a slower tempo, but produced the same dreamy disorientation:

> One night in Miami, still dazed from a week on an Atlantic liner, I began watching a film and at first had some difficulty in adjusting to a much greater frequency of commercial 'breaks'. Yet this was a minor problem compared to what eventually happened. Two other films, which were due to be shown on the same channel on other nights, began to be inserted as trailers. A crime in San Francisco (the subject of the original film) began to operate

5 The discussion of *Koyaanisqatsi* is drawn from the present author's *Repeating Ourselves: American minimal music as cultural practice* (Berkeley and Los Angeles, 2005), pp. 161–2. The present chapter will expand on and historicize some technological implications of this book's larger argument about minimalism, advertising and consumer culture.

> in an extraordinary counterpoint not only with the deodorant and cereal commercials but with a romance in Paris and the eruption of a prehistoric monster who laid waste to New York … The transitions from film to commercial and from film A to films B and C were in effect unmarked. There is in any case enough similarity between certain kinds of films, and between several kinds of film and the 'situation' commercials which often consciously imitate them, to make a sequence of this kind a very difficult experience to interpret. I can still not be sure what I took from that whole flow. I believe I registered some incidents as happening in the wrong film, and some characters in the commercials as involved in the film episodes, in what came to seem – for all the occasional bizarre disparities – a single irresponsible flow of images and feelings.[6]

The catalyst is exhaustion rather than time-lapse photography, but the result is the same: Williams loses track of television's supposedly variegated content, and becomes aware of its actual repetitive form. Formally, broadcast television is not really a series of distinct programmes interrupted by commercial 'intervals', but a single undifferentiated *flow* of segments; and, as Williams puts it, that 'planned flow' is 'the defining characteristic of broadcasting, simultaneously as a technology and as a cultural form'.[7] To rephrase the insight in terms that deliberately evoke Steve Reich and Michael Nyman, an evening of television is not a collection of temporally discrete 'works'; it is participation in the endless, unitary flow of *television as a process*.

As described in contemporaneous sources, the phenomenology of 1960s and 1970s television-as-process had a lot in common with that of the new minimalist process music. In a 1975 essay on the formal possibilities of video art, the videographer David Antin reported that his own medium's double, network television, was dominated by the regular 'tick of its metronome'; he went on to analogize broadcast television's nested modular time structures to proportionally related 'time signatures', as if the interplay of programmes and advertising in a typical hour of television could be notated as in a score by Glass or Reich, where stratified musical textures interlock in the same systematic way.[8] This is a rather exotic concept, especially if one has not had the benefit of structural immersion in this bygone era of television; it will be useful to recall for the contemporary reader Antin's analysis of how the interlocking 'time signatures' of 1960s network television actually meshed. On the 'micro-scale' of TV, he noted, a 30-second advertisement was 'built' out of 10-second pieces (the metronomic 'beat'), and 60- or 120-second advertisements were simply multiples. At the 'macro' level, the structure of network broadcasting was proportionally the same, carved from programming units of 120 minutes, the 'beat' now meted out in 15-minute segments themselves divided between approximately 12 minutes of programming and approximately three minutes

6 Raymond Williams, *Television: technology and cultural form* (New York, 1975), p. 92.
7 Ibid., p. 86.
8 David Antin, 'Video: the distinctive features of the medium', in Suzanne Delahunty (ed.), *Video Art* (catalogue of a 1975 exhibition at the Institute of Contemporary Art, University of Pennsylvania), pp. 61–74. This little-known but fascinating essay was reprinted in Ira Schneider and Beryl Korot (eds.), *Video Art: an anthology* (New York, 1976), pp. 174–95.

of advertising. Even today, Antin's metaphor of 'time signatures' remains perfectly apt: it encapsulates a recursive periodic structure that traditional musical notation makes intuitively clear.

It was possible to subdivide television's beat further: in 1977, Jerry Mander's *Four Arguments for the Elimination of Television* formally analogized the technology of television itself to a 'repetitive process' taking place at the level of the microsecond. A reformed advertising man, Mander was obsessed with the baleful hypnagogic effect of analogue television's 'electronic rhythm', what he called the 'beat of the set', as it organized the assembly of moving pictures from an endlessly pulsating transmission stream of glowing dots:

> For the entire four or more hours per day that the average person is watching television, the repetitive process of constructing images out of dots, following scans, and vibrating with the beats of the set and the exigencies of electronic rhythm goes on … Eventually, the conscious mind gives up noting the process and merges with the experience. The body vibrates with the beat and the mind gives itself over, opening up to whatever imagery is offered … One image is always evolving into the next, arriving in a stream of light and proceeding inward to the brain at its own electronic speed.[9]

As Mander's psychedelically inflected language shows, he believed that the patterned visual vibration of these dots, blinking off and on 30 times per second, would create a physical entrainment ('The body vibrates with the beat') that might well overwhelm the conscious mind. Casting around for a ruling metaphor to describe how television's ability to 'set its own visual pace' could outrun the conscious mind, he hit upon the same memorable figure of speech as Williams had two years before: thanks to the 'liquid quality of television imagery', he argued, 'the viewer has no way to slow the flow'.[10] (In the sequence of time-lapsed television broadcasting from *Koyaanisqatsi* discussed above, Reggio made this potential danger cinematically real: the viewer cannot possibly process the pictures coming out of the filmed TV set fast enough, and the stroboscopic effect is quite vividly hallucinatory.)

Mander was not alone: anxiety about such 'subliminal seduction', as it has been called, already pervaded the Cold-War imagination, with periodic outbreaks of indignation over hidden sexual imagery airbrushed into magazine advertisements and exhortations to consume amidst the flickering of movie trailers.[11] Whether sub-perceptual visual stimuli really could slip an idea past the conscious mind is not really

9 Jerry Mander, *Four Arguments for the Elimination of Television* (New York, 1978), p. 192.

10 Ibid., p. 200.

11 Popular fears about 'subliminal' messaging were first stoked in the USA by the muckraking journalist Vance Packard, whose *The Hidden Persuaders* (New York, 1957) took on a whole range of psychologically and perceptually subliminal advertising techniques. The term 'subliminal seduction' was coined by the communications scholar Wilson Bryan Key, whose much more hard-edged conspiracy theories about hidden sexual imagery in seemingly innocuous print advertising appeared under the sensational title, *Subliminal Seduction: ad media's manipulation of a not so innocent America* (New York, 1974).

the point; more interesting is that these phantom visual 'vibrations' were postulated as directly effective on the body (and, thereby, the body politic), just as mathematically organized *sound* vibrations have been since the time of Pythagoras and Plato.

Like Plato, Mander wanted to banish this hypnotic visual 'music' from his ideal – in this case, of course, American – republic. He scoffed at well-meaning attempts to raise the quality of television broadcasting, and proposed to outlaw the TV set itself as a de facto public health hazard. But whether or not we accept Mander's paranoid critique of television as subliminal seduction, we cannot ignore the way in which it harmonizes with other late-1970s phenomenological descriptions of television that emphasize a constant, rhythmically regular flow of basically undifferentiated material, organized at three metric levels of pulsation: a subliminal level of barely perceptible vibration, where each second is divided into 30 or 60 electronic flickers; an intermediate level of interruption (more about this below) where the seconds are grouped by tens into 15-, 30- and 60-second units; and an encompassing programmatic level, where the basic building block is the 15-minute sequence of show segment + break, assembled into 30- (sit-com), 60- (drama) and 120-minute (movie) units.

Glass's repetitive cycling music for 'The Grid' thus displays a striking resemblance to network television's tripartite time structure: whirring synthesizer arpeggios, rapidly cycling geometric patterns of musical 'dots' at the limits of sonic perception, do a pretty good job simulating the vibrating 'electronic rhythm' of the TV set; the actual process of the work, its phrase structure, is based quite clearly on repetition and build-up of phrases that are approximately 10 seconds in length, usually repeated four to six times; and the entire composition is 21 minutes long, which is slightly longer than the average segment of television programming, but is scaled in correct proportion to the other two levels. Of course, Glass's score for *Koyaanisqatsi* makes no overt reference to the *content* of the 1970s network television spewing out on the screen above it, but it does seem to reproduce the distinctive cultural *form* of that television broadcasting – sustained abstract patterns of interlocking, pulsating, largely subliminal flow at multiple temporal levels – in equally sustained abstract patterns of musical sound.

A structure of multiple interlocking metric levels is unremarkable in Western music, but the gradual, subliminal nature of its repetitive patterning is a distinctive feature of minimalist process music, often highlighted by composers in terms that would have made contemporary critics of television and the subliminal very uneasy. La Monte Young has long argued that the 'periodic composite sound wave forms' created by intricate combinations of sine tones in perfect rational intonation can physically entrain the auditory cortex into repetitive neuronal firing; this should induce in listeners 'subliminal' feelings that index fundamental Pythagorean truths.[12] (Given the frequencies that he uses, these composite waveforms cycle simultaneously at intervals from once every several minutes to thousands of times per second.) Steve Reich spent a number of years in the late 1960s and early 1970s exploring how the 'psycho-acoustic byproducts' of the constantly changing phase patterns in works such as *Violin Phase* (1967) and *Drumming* (1971) could, through subtle doubling and timbral matching, be gradually picked out, moved from subliminal to conscious awareness, and then dropped back into an undifferentiated rhythmic flow. At around the same time, he

12 La Monte Young, 'Notes on *The Well-Tuned Piano*', liner notes to recording of *The Well-Tuned Piano 81 X 25, 6:17:50–11:18:59 PM NYC* (Gramavision: 18-8701, 1988), pp. 5 and 7.

invented the Phase Shifting Pulse Gate, an electronic timing device that, much like the electron gun at the heart of an analogue television's cathode-ray tube, could process and fire up to 120 electronic pulses per second in constantly changing rhythms. The goal, realized only once, was to create a hypnotic, gradually shifting flow of subliminal electronic sound patterns in a listener's perceptual apparatus.[13]

My argument, implicit in much of the above, is that classic network television, like classic minimalist music (and unlike most other music), is dominated by *gradual process.* Televisual flow was gradual by definition; in the 1960s and 1970s, everything on network television looked pretty much like everything else and sharp contrasts were deliberately avoided. Antin points out that an entire arsenal of techniques had been developed to 'soften the tick of its metronome … to soften all shocks of transition'. He argues that video art, if it was to *be* art, had to resist the sameness built into the technology, or it would bore its audience to death; but the art of music, as practised by minimalist composers, happily embraced the undifferentiated flow of television time. Perhaps this is why so many other video artists with links to the musical avant-garde – pioneers such as Beryl Korot, Bruce Nauman and Nam June Paik – found repetitive music so fascinating.[14]

Flow, Advertising and the Birth of Minimalist Music

Neither repetitive minimalist music nor the flow of broadcast television presents a completely non-linear experience of time. Rather, they share a special *kind* of linearity, a unique relation to the desire for narrative closure that is perhaps their most distinctive phenomenological feature:

> Radio and television programs are constantly being interrupted – by advertisements, station breaks, and filler. Interruption has its own logic, one

13 Steve Reich, 'Music as a Gradual Process' (1968), in *Writings on Music 1965–2000*, Paul Hillier (ed.) (Oxford, 2002), p. 35. Reich's programme note for *Violin Phase* (1967) describes the technique for 'pointing out' subliminal melodies in the listener's awareness (see *Writings on Music,* p. 26). For Reich's wry description of his brief foray into electronic instrument construction, see his 'An End to Electronics – Pulse Music, the Phase Shifting Pulse Gate, and *Four Organs,* 1968–1970' (1972), in *Writings on Music,* pp. 38–45.

14 Antin, 'Video', pp. 64–8. 'While on the East Coast in 1968, [Bruce Nauman] became interested in the music of La Monte Young, Philip Glass, Terry Riley, and Steve Reich. His studio activities, sometimes dealing with rhythmic patterning, reflect the serial repetition of this music, which does away with the sense of duration while intensifying one's awareness of the moment' (Lizzie Borden, 'Directions in Video Art', in Delahunty, *Video Art,* p. 79.) It is worth noting in this regard that Beryl Korot, a seminal video artist whose pioneering 1970s work 'weaving' together the output of multiple TV monitors (e.g. *Dachau,* 1974) directly engaged with the repetitive, interlocking nature of the broadcast medium, is married to Reich, and has been his collaborator on a number of large-scale multimedia works that combine the rhythms of repetitive music and multiple interwoven streams of video.

> that writers of TV scripts have to study carefully. The story that gets cut into pieces by commercial breaks cannot be so powerful in any one segment that the viewer will be furious when the break comes – an angry viewer is not a receptive buyer. A rhythm of content is established by the people who contrive mass entertainment: the 'show' is broken into regular short segments, each of which terminates at a point at which the viewer (or listener) wants to see (or hear) more but isn't so overwhelmingly engaged as to resent the break.[15]

Thanks to what Richard Sennett, quoted here, identifies as its 'logic of interruption' – the fact that unrelated advertising and trailers are constantly cutting into the dramatic progression – post-1960s television has evolved a carefully calibrated *telos*: each segment of the flow has just enough forward drive to keep the viewer interested, but not so much that the segmentation itself is experienced as unpleasant.

Appositely enough to the current discussion, Sennett was not writing primarily about television, but about mid-1980s developments in contemporary classical music. He was trying to explain the sudden immense popularity of music such as Act III of Philip Glass's *The Photographer*, written in the same year (1982) as – and sounding much like – the soundtrack to *Koyaanisqatsi.* This is repetitive music that proceeds according to its own logic of interruption, music that takes the most teleological tonal material possible and forces it to loop back on itself every 10 seconds, interrupting itself, and thus segmenting itself, over and over, according to the rhythm of commercial time. Sennett, trying to pin down its appeal to the younger generation (he prefers Pierre Boulez), quotes a teenage relative whom he took to see the show in Brooklyn. 'It's simple', reported his informant. 'This is what television should be.'[16]

Sennett the critic makes a perspicacious point about reception: by 1984, massive doses of television flow had created an audience for a musical style that moved through time in the same multilayered, interrupt-driven way. (Glass, he argues, was not a crossover artist; 'mass culture prepared people to cross over to him'.[17]) But the relation of musical minimalism and televisual flow also has intriguing implications for the way in which we write the cultural history of repetitive music. Flow was not invented with the television broadcasting system in the late 1940s; nor has it continued unaltered to the present day. Find out when television started flowing freely, and you might be able to predict the rise of a repetitive music to match it; later disturbances in the flow (and there have been many) might well correlate with a shift away from 'classic' minimalism, to what we now call 'postminimalism', or perhaps toward something else altogether.

As it happens, it is quite easy to date the birth of flow. It had to do with advertising, a feature of commercial network television that, though implicit in much of the preceding discussion, has been deliberately avoided until now. Flow, with its logic of constant

15 Richard Sennett, 'The Twilight of the Tenured Composer', *Harper's*, 269 (1984): pp. 70–71.

16 Sennett, 'Tenured Composer', p. 71. As it happens, Act III of *The Photographer* did not just become television; it participated in an arty offshoot of MTV, generating a pioneering abstract 'music video' made for CBS in 1983 by the video artists Dean Winkler and John Sanborn (see <http://www.youtube.com/user/dean358> (accessed 12 August 2011)). Actually aired on the US cable network in 1984, Winkler and Sanborn's work is now in the collection of the New York MOMA.

17 Sennett, 'Tenured Composer', p. 72.

interruption, is the direct consequence of a structural shift in the way sponsorship was deployed to underwrite network programming.[18] At its inception, television's sponsorship model was taken from radio: individual corporations bought entire hours of time from the network, and created both the advertising and the programming to fill them. The effect could be high-class or vulgar – but the goal was a unified presentation of entertainment and salesmanship, flexibly deployed to create an attractive fusion of product and programme in the viewer's mind. Interruption was avoided: serious programmes sometimes eliminated advertisements altogether, or bunched them up at the beginning and end of a drama played without breaks; in comedy and variety programmes, the selling was often seamlessly integrated into the show, with the host turning 'spontaneously' to his audience and initiating a relaxed discussion of the sponsor's product.

But the radio model eventually proved unworkable: corporate sponsors were poor managers of the airwaves, alienating viewers and bringing regulatory wrath down on the networks; more to the point, as advertising rates skyrocketed, even the largest corporations found themselves unable to afford an hour of 'prime' time. The solution was to change television's sponsorship model over to what was known during this period as the 'magazine concept': short advertising spots would be sold to the highest bidder and inserted with metronomic regularity, but without coordination of content, into an ongoing stream of programming, like print advertisements in the pages of a magazine.

The logic of spot advertising and multiple sponsorship changed the phenomenology of television; as both Raymond Williams and David Antin point out, they gave inevitable rise to flow. Antin notes that a typical ½-hour of 1970s network television had about 22 to 24 minutes of programming and six to eight minutes of advertisements. The latter, of course, are distributed at the beginning, middle and end of the programme, splitting it into two halves and separating it from the preceding and following programmes. But, as he points out, thanks to spot advertising, by the 1960s these 'commercial breaks' were *themselves* divided into up to four separate 30-second chunks, each connected to a different sponsor, each extremely different in subject and style, and sometimes further fractured by short 'promo' spots inserted by the network. The pulverizing effect of these 30-second interruptions increased when, as often happened, the opening and ending of the actual programme were 'wrapped around' the first and last commercial breaks. Antin argues that the resulting flow of television, even within the programme segments, is 'scaled to commercial time', and thus, like minimalist music, it has a steady, repetitive, metrical beat at several phenomenological levels.[19]

This structure fell into place quickly during the early 1960s: in 1955, three out of four shows had a single sponsor; a decade later, only one in eight did. The historical correlation is satisfyingly precise: repetitive minimalist music arises in American culture at the exact moment, the mid-1960s, when spot advertising irrevocably takes

18 The following discussion summarizes historical and interpretative themes developed at much greater length in Fink, *Repeating Ourselves*, pp. 128–42. For historical background, consult William Boddy, *Fifties Television: the industry and its critics* (Urbana, IL, 1990), p. 155; as well as J. Fred MacDonald, *One Nation Under Television: the rise and decline of network TV* (New York, 1990) and Anthony Smith (ed.), *Television, an International History* (Oxford, 1995).

19 Antin, 'Video', p. 65.

over broadcast television, and sequenced semi-teleological flow – Sennett's 'logic of interruption' – becomes the dominant phenomenological reality of the medium. Of course, correlation is not causation; television did not cause minimalism to happen, either as a deliberate response to the rise of flow or as an involuntary reflection of the new electronic zeitgeist. Nor should minimalism suffer critically for commercial television's many sins. But the history of repetitive music in American culture looks quite different if one imagines its rise and fall correlated not just with the usual counter-cultural suspects – drugs, Eastern religion, pop music – but with the complex evolution of our consumer culture and its mass-mediated cultural forms.

Minimalism is often positioned in histories of twentieth-century art music as the soundtrack to the mythic 1960s: a sonic injunction to, as the hippies used to put it back then, 'turn on, tune in, and drop out'. Timothy Leary's actual injunction was somewhat more complex and process-oriented: 'Six words: drop out, turn on, then come back and tune it in … and then drop out again, and turn on, and tune it back in … it's a rhythm.'[20] Dr Leary wouldn't have liked to hear me say it, but 1960s television *also* had rhythm, and following it could be an equally repetitive, hypnotic trip. Pretty much everyone in 1960s and 1970s America was on the TV trip; would it be so outlandish to wonder whether American music went with the flow as well?

Zap! The Remote Control and the Rise of a Postminimalist Style

It may have occurred to a reader equally familiar with the history of minimalism and television that by 1984, when Richard Sennett provided his cultural analysis of minimalist repetition, both the whirring arpeggios of Philip Glass and the homogenous flow of television pumped out by the three major American networks were getting long in the tooth. The early 1980s were a time of radical change in the television industry. In addition to rampant deregulation of the airwaves, this period saw the introduction and rapid diffusion of videocassette recorders, the birth of the national cable industry and a proliferation of new broadcast channels. But the pivotal technological shift for the phenomenology of television flow was the unstoppable diffusion of cheap infra-red devices for remotely controlling the set. Workable remote controls for TV sets had been marketed as early as the mid-1950s, but they were clunky, prone to misfire and *very* expensive (a remote added 30 per cent to the price of a typical console); as late as

20 Leary reiterated his six-word mantra, in various inflections, in just about every interview and speaking engagement between 1964 and 1973. The version here comes from a famous presentation at MIT in Boston on 3 March 1967, about 10 minutes into Leary's half of a debate with Jerome Lettvin, an MIT neuroscientist, on the benefits and dangers of LSD. The filmed debate was later broadcast by Boston's public television station, WGBH, on 30 November 1967 under the title, *LSD: Lettvin Vs Leary.* Interested readers can access the entire film in the online WGBH Media Library and Archives at <http://openvault.wgbh.org/catalog/7df2a7-lsd-lettvin-vs-leary> (accessed 25 July 2012). Leary utters the words quoted above at 10:23.

1975, less than 10 per cent of TVs had one. But by 1992, whether attached to a new video cassette recorder (VCR), a new TV or (increasingly common) the new cable decoder box on top of the set, remote controls were in the hands of 90 per cent of viewers.[21]

Robert Bellamy and James Walker begin their indispensable 1996 book on the television remote control by forthrightly claiming the remote control device (RCD) as a 'subversive technology'. What it works to subvert is television flow: 'By allowing the user to move rapidly between program offerings and avoid unpleasant or uninteresting material, the RCD works in opposition to the historic structure and operational parameters of the US television industry.'[22] Scholars such as Bellamy and Walker have discussed the rise of the remote, its economic and political effects, and the race, class and gender factors that determine its possession and use; they have also developed a typology of remote-control-enabled behaviours such as *zipping* (using a VCR remote to fast-forward through the advertisements in recorded broadcasts), *zapping* (using a TV or cable remote to jump away from commercials while watching live) and *grazing* or *flipping* (using the remote to jump repeatedly between programming on multiple channels).

There is still much that researchers do not know about the way in which television viewers use RCDs, and lingering controversy about such simple questions as how many times per hour an average user changes the channel.[23] But detailed phenomenological analysis of RCD use shows that *form* – in particular, the complex, real-time interaction between the interlocking, fixed tempos of television broadcasting and the new rhythmic freedom of impulse enabled by the 'clicker' – is central to the improvisatory pleasures of 'grazing'. The communications scholar Paul Traudt – who videotaped channel surfing sessions, analysed them and then (the key step) went on to interview his subjects while they were watching themselves surf – establishes that television grazers understand how broadcasting is put together rhythmically; they feel its flow and play off it as they seek out interesting content. (Traudt calls this 'surveillance' and argues that, when viewers are in surveillance mode, they 'display a sophisticated understanding of television's temporal rules for structuring presentations'.[24])

In effect, broadcast television viewers use the RCD as a foraging tool, engaging in rhythmic rapid-fire clicking to lock in a set of promising channels (Traudt calls this a 'cluster'), and then moving back and forth between them based on their intuitive grasp of the countervailing rhythms of television. The collages that they construct are purposive and formally intricate; the famous semiotician, Umberto Eco, was not just being self-congratulatory, nor was he atypical, when he declared in 1990 that, with the remote in his hand, he could 'make television into a Picasso'.[25] Traudt notes that, like

21 See Bruce C. Klopfenstein, 'From Gadget to Necessity: the diffusion of remote control technology', in James R. Walker and Robert V. Bellamy, Jr (eds.), *The Remote Control in the New Age of Television* (Westport, CT, 1993), pp. 23–39.

22 Robert V. Bellamy, Jr. and James R. Walker, *Television and the Remote Control: grazing on a vast wasteland* (New York, 1996), p. 1.

23 The fundamental problems seem to be, on the one hand, too much reliance on self-reporting in mass surveys and, on the other, the small sample size of observational studies. See the essays in Part II (pp. 41–100) of Walker and Bellamy, *The Remote Control*.

24 Paul J. Traudt, 'Surveillance and Cluster Viewing: foraging through the RCD experience', in Walker and Bellamy, *The Remote Control*, p. 70.

25 This quotation is a favorite of communications researchers who study the RCD; its

old-time telegraph operators, RCD users have distinctive clicking styles that are 'as unique as fingerprints but classifiable through a basic ontology of tempos determined by user predisposition and programming availability'.[26]

In the remote-control era, viewers are not simply passive receivers of television's 'electronic rhythms'; they impose their own 'ontologies of tempo', their own swing, onto the broadcast flow. Bellamy and Walker, calling on a long-standing theory of mass communication, imply that there is pure pleasure in making a Picasso – or a Charlie Parker solo – out of television. RCD use is an example of 'communication-play', in which 'grazers also graze just for the fun of it … a joy that comes not just from the images encountered but from the control they have over those images'.[27]

Let's go one step further, a step that none of these communications researchers takes, perhaps because none of them is a professional musician. The point is not just control over the images; it is control over the *rhythm* of the images. Alert viewers can play the remote control like a musical instrument, 'soloing' by bopping among a cluster of channels in syncopated rhythms over the basic groove of television's segmented flow. A 1993 article reproduces the anguished cry of a wife driven half-mad by her husband's 'aggressive playing' on the RCD, and yet her musical metaphor is pitch-perfect: 'He lies on the couch and plays the piano on the cable box. Every second it's switchy-switchy. Anything he doesn't like, whammo, it's gone.'[28] Annoying they may be, but these irregular shifts and jumps *are* temporally akin to the rhythms of Igor Stravinsky or jazz on the piano: they make sense, but only in context of the ongoing temporal organization (the 'time signatures') of broadcast television playing behind them; a metric grid that, as Bellamy and Walker remind us, never actually went away.[29]

Thanks largely to the remote control, but also to structural changes in the flow itself (about which more below), the everyday experience of broadcast television was becoming more rhythmically complex and unpredictable, and thus more traditionally 'musical', all through the 1980s. So was pulse-pattern minimalism in music. Whether framed as the leavening of strict process with a new freedom of intuition, or as the collapse of an all-encompassing aesthetic into a grab bag of surface techniques, a

original appearance was in a 1990 *Village Voice* interview. See George Stokes, 'Eco Eco Eco Eco Eco', *Village Voice,* 8 January 1990.

26 Traudt, 'Surveillance and Cluster Viewing', p. 70.

27 Bellamy and Walker, *Television and the Remote Control,* pp. 117–18. The idea of communication-play is from William Stephenson's influential study *The Play Theory of Mass Communication* (Chicago, 1967), a text often referred to by RCD researchers. Writing well before the mass advent of the remote control, Stephenson noted grazing behaviour among newspaper and magazine readers. Marshall McLuhan first made the connection between the staccato syncopated rhythms created by scanning the newspaper's front page and Picasso's analytic cubism in *The Mechanical Bride: folklore of industrial man* (New York, 1951), pp. 3–4.

28 Quoted in David Lavery, 'Remote Control: mythic reflections', in Walker and Bellamy, *The Remote Control*, p. 229.

29 A cursory glance at the programming schedules of the broadcast networks, as well as the vast majority of basic cable services, reveals no obvious changes in the scheduling structure of 10 or 20 years ago. With the exception of sports and motion pictures, programmes are still scheduled in either 30- or 60-minute time blocks that begin on the hour or half hour (see Bellamy and Walker, *Television and the Remote Control*, p. 75).

recognizably postminimalist style appeared and was hailed as such in American music of the 1980s.[30] John Adams, the most celebrated (or derided) practitioner of musical postminimalism, was born in 1947, and thus grew up alongside 1960s network broadcasting (although he recalls that his parents did not allow a TV set into their rural New Hampshire home). Initially inspired by the 1970s work of Glass and Steve Reich, he had declared himself 'a minimalist bored with minimalism' as early as 1980.[31]

Adams's own postminimalist style was already more open to jaggedness and contingency than that of the previous generation. He imagined his late-1970s repetitive works as passing through a series of 'gates', a term borrowed from electronic circuits where capacitance was used to dam up and then release the signal flow. Musical gates are on–off switches, introducing instantaneous modal and textural shifts into minimalism's gradual process. A composition such as *Phrygian Gates* for piano (1977), largely based on the flow of repetitive interlocking patterns, uses musical gating to 'change the channel' (as it were) on listeners; unpredictably, in the midst of the process, the composer would introduce 'a sudden unprepared shift [that] would produce an unexpected shock to the listener'. This propensity for 'a sense of surprise and the unexpected' became Adams's trademark; for many critics, this slight jumpiness, the way in which Adams continually intervenes in the flow of his repetitive patterns to keep them from becoming predictable (and thus boring), was a signal advance:

> For the first 159 measures of *Nixon in China* the violins, violas, and keyboards in the orchestra play rising scales; moreover, for the first thirty of those measures the scales are the same and always rising through one octave. But to these scales, woodwinds add slower scales (about one seventh the speed of the others), bass instruments contribute a series of pedals on A, F, and C, trombones add a little four-note sputter from time to time, and every now and again the whole is punctuated by a high 'ding.' You never know when the bass is going to change, how tightly the slower scales will be lapped, when the trombone sputters or the 'ding' will appear.[32]

30 See K. Robert Schwarz, 'Process vs. Intuition in the Recent Works of Steve Reich and John Adams', *American Music*, 8/3 (1990): pp. 245–73; and Timothy A. Johnson, 'Minimalism: aesthetic, style, or technique?' *The Musical Quarterly*, 78/4 (1994): pp. 742–73. Calling Adams a postminimalist is somewhat controversial; Kyle Gann, one of the first critics to descry postminimalism in the 1980s, omits Adams from the roll of postminimalist composers in his survey of twentieth-century American music, assigning to him the 'extremely different attitude' of New Romanticism. (I think we can both be correct; see my conclusion below.) Gann, *American Music in the Twentieth Century* (New York, 1997), pp. 229–34 and 325–7.

31 Adams recalls the prohibition, and watching television in neighbours' homes, in a 2005 interview; see 'John Adams Reflects on His Career', in Thomas May (ed.), *The John Adams Reader: essential writings on an American composer* (Pompton Plains, NJ, 2006), p. 5. The remark about being 'bored with minimalism' was made to Michael Steinberg in 1980 and is quoted in Steinberg's 1981 programme note for *Harmonium*, reprinted in May, *The John Adams Reader*, p. 82.

32 'John Adams Reflects', pp. 25–6; Michael Steinberg, liner notes for *Nixon in China* (Nonesuch: 79177, 1990), reprinted in *The John Adams Reader,* p. 114.

By 1992, when remote-control penetration in American households reached 90 per cent and when most of the sociological and communications research quoted above was actually in process, this jumpiness had become the manifest content of Adams's music. His Chamber Symphony, composed in that year, begins with a cowbell articulating a basic $\frac{4}{4}$ beat – but almost immediately everything goes haywire, as bubbling and shrieking woodwinds quickly give way to angular ostinatos cutting independently across the 'inexorable click' of an implied trap set.[33] This kind of tense, jazzy, dissonant polyrhythm has obvious classical-music antecedents: Stravinsky, Aaron Copland, Conlon Nancarrow. But it is also a perfect representation of the turbulent television environment of 1992, as abrasive and jerky as Glass's 1970s minimalism was glossy and smooth. No longer carried along on one channel's hypnotic flow, the listener bounces among three or four patterns of metrically clashing programming, at irregular and disjunct rhythmic intervals.

But we can do better. As I noted above, Traudt identifies a common pattern of RCD use, where rapid-fire rhythmic clicking ('surveillance') alternates with more sedate, but still syncopated, grazing among a cluster of channels, followed, one presumes, by more surveillance – and so on. Traudt transcribes the running inner narrative generated by users as they watch themselves doing this on videotape:

> <click> <click> <click> Okay, so looks like I went eight, nine, ten. Commercial was on eight, eight, nine, ten. <click> Jumped to fifteen. <click> <click> Seen that. <click> I went back to that sleep thing, it looked like something I wanted. <click> Can't stand that. <click> Can't stand that. I can tell exactly what I'm doing here [in reference to recorded images]. I'm doing that same thing that I'd be doing now, flip this, boring.[34]

Traudt's subject is, like Adams, bored with repetitive programming – so he jazzes it up with the RCD. What if there were a musical motive in the Chamber Symphony that one could correlate with that jazzy pattern of foraging clicks? It would have to be short, and it would cut across the metric grid of the work; it would appear in a cluster of rapid-fire reiterations, abate for a while, then return with increasing intensity and palpable impatience. It might be nothing more than a simple falling step, the minimal musical representation of opening and closing an electronic gate like, perhaps, the one underneath the 'channel shift' button on the remote control. In the last 2'30" of the first movement of the Chamber Symphony, it is possible to follow just such a falling-step motive through multiple unexpected reappearances, repeated presses of the musical 'button', which *could* sound, to a sympathetic ear, like RCD-enabled foraging, the achievement of a stable cluster of channels, and then a renewed frenzy of syncopated clicking just before the set is switched off.

Perhaps, patient reader, you are tempted to change the channel on me right now; but before you go, consider Adams's original inspiration for this composition:

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33 Adams quoted on his Chamber Symphony in Sarah Cahill's programme note for a 2003 Lincoln Center Festival concert; see *The John Adams Reader*, p. 150.

34 Traudt, 'Surveillance and Cluster Viewing', p. 66. I have replaced Traudt's special symbol for the RCD click (<S>) for clarity.

> I was sitting in my studio, studying the score to Schoenberg's Chamber Symphony, and as I was doing so I became aware that my seven year old son Sam was in the adjacent room watching cartoons (good cartoons, old ones from the '50's). The hyperactive, insistently aggressive and acrobatic scores for the cartoons mixed in my head with the Schoenberg music, itself hyperactive, acrobatic and not a little aggressive.[35]

As Adams worked on Arnold Schoenberg's First Chamber Symphony, a seven-year-old was watching Bugs Bunny cartoons in the other room, bathing them both in the sound of television flow. The young man may not have been zapping and grazing, but classic cartoons are what television executives call 'pre-grazed' entertainment, since their hyperactive style arrests the attention and they last less than half as long as the average programming segment, leaving more room for equally hyperactive commercials. Adams himself was also grazing, but at a higher level, dividing his musical attention between the rhythms of the TV set in the next room and the rhythms of the complex avant-garde music that he was studying. The result was a formal (con)fusion, Schoenberg and Carl Stalling be-bopping together in his head. When, at the end of Adams's score, Schoenberg gets mixed up for a few seconds with Elmer Fudd, the experience is of a kind with the tumbling confusion of genres and stories that led Raymond Williams to deem television an 'irresponsible' flow. Later, as Adams worked, equally irresponsible music took shape on another glowing screen, the screen of his personal computer, running the Digital Performer sequencing software that he uses to compose, whilst Sam presumably continued to watch television.

In the Chamber Symphony, it is Adams who zips and zaps his own musical material, clicking his computer mouse like a remote control, turning cartoon soundtracks on television into the musical equivalent of a Picasso:

> I have a very flexible software system, Digital Performer, a program originally developed for film scoring. It has flexibility of the sort that allows me to take musical structures and stretch them, transpose them, squeeze them, distort them – move large or small structures around. I've become very adept at using it, and, of course, I don't use the software in the way that its developers intended. I can move around in that environment very fluidly … I can do it almost without thinking.[36]

Totalism, Event Marketing and the End of Flow

The remote control not only allowed viewers to improvise syncopated rhythms of viewing against television's metronomic flow; it also allowed them, more pragmatically, to skip annoying commercials. The industry tried to respond like a good bop drummer, feeding the most distinctive rhythmic innovations of its audience back into the groove,

35 John Adams, 'Notes on the *Chamber Symphony*' (1994), at <http://www.earbox.com/W-chambersymphony.html> (accessed 12 September, 2010).

36 'John Adams Reflects', p. 20.

trading riffs and jamming with them rather than insisting on a rigid and regular pulse. The programming technique was called 'accelerated flow': advertisements got shorter (so-called *split 30s* became the norm); programmes were run directly into each other, with the first commercial 'pod' shifted after the 30- or 60-minute 'downbeat' (*hot switching*); both commercials and programming began directly to mimic the jumpy, rapid-fire rhythms of RCD-enabled television (*pre-grazed content*).[37] By the early 1990s, *everybody* was jamming against the subliminal beat of the media, even the advertisers responsible for setting its temporal grid in motion. For a younger generation of postminimalist composers, born in the 1950s, the logical next step was 'to imagine music with a strong rhythmic pulse, written down, with no one playing on the beat', as Michael Gordon (b. 1956) illustrates:

> One of the weird things I was doing, and one of the things I did in *Yo Shakespeare*, is I started splitting up triplet notes – which is a technical thing and I think you have to be a musician to understand this – but instead of dividing a beat into three triplets, I would write two triplet notes, a bunch of eighth notes and then two more triplet notes and a bunch of eighth notes … So I started writing this music that had no bar lines. It was just one big thing, like non-stop, and I was working on it for a while and then I kept looking and I kept looking and I said, 'You know you can actually draw a bar line here.'[38]

The relentless rhythmic complexity of this third wave of repetitive music – sometimes called 'Bang-On-A-Can-ism', after the New York City-based composers' collective in which several of its exponents laboured, or 'totalism', for its attempt to integrate rhythmic and harmonic complexity over a strong implied pulse – is usually seen as the natural response of a generation of American composers who grew up with the heavy four-on-the-floor beat and polyrhythmic complexity of groove-based African-American music pouring out of every radio and TV set.[39] But as they themselves note, the funky rhythms of totalism resemble popular dance music only on the sonic surface; it is precisely the perceptual *absence* of a regular metric grid that distinguishes this music from similarly interlocking pulsations in 'classic' 1970s minimalism.[40]

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37 S.T. Eastman and G.D. Newton, 'Delineating Grazing: observations of remote control use', *Journal of Communication*, 45/1 (1995): p. 94.

38 Michael Gordon's description of *Yo Shakespeare* from Alan Baker, 'American Mavericks: an interview with Michael Gordon', American Public Media, July 2002, at <http://www.michaelgordonmusic.com/interviews.php> (accessed 12 August 2011).

39 Totalism is generally accepted to be the critical coinage of composer and journalist Kyle Gann. See 'Totally Ismic', *Village Voice* (20 July 1993), reprinted in Kyle Gann, *Music Downtown: writings from the* Village Voice (Berkeley and Los Angeles, 2006), pp. 127–9; and Gann, *American Music in the Twentieth Century*, pp. 352–86. Also Gann's chapter on 'Postminimalism' in the present volume.

40 Bang-On-A-Can founder Julia Wolfe recounts a typical misunderstanding along these lines in an interview with *Bomb* magazine: 'I played *Lick* and one young guy said, "I don't understand why you're rewriting James Brown". [But] if you listen to James Brown, it's funk, it's a regular meter, more or less in song form with a refrain. This young guy could only hear the surface level where [*Lick*] resembles a funk sound.' David Krasnow, 'Interview with Julia Wolfe', *Bomb*, 77 (2001): pp. 66–71.

With totalism, repetitive music's relationship to repetitive mass media becomes as complex and fractured as the music itself. But another alternative, simple and dramatic, had already arisen within the world of broadcasting, an even more radical disavowal of the 'logic of interruption' than the frantic cross-rhythms of accelerated flow. As early as the mid-1980s, some large advertisers, beginning to realize that their advertisements were no longer safe within even the most jacked-up flow of network programming, deliberately stopped trying to make them blend in at all. By 1984, the term 'event marketing' was coined to describe a strategy whereby some advertisements would impress consumers by attempting to transcend the spot advertising model altogether. The key was to make the advertisement itself a supra-televisual event, to make it jump out of the (starting to be perceived by everyone as boring) network flow, so that it would be discussed and rebroadcast over and over, for free. (Viewers, it was thought, would not 'zap' an event-type advertisement when it reappeared as 'news-slash-entertainment'.) The distinctive formal technique of event marketing was the return of narrative drive: advertisements became epic 'mini-movies', their style and tone aping 1980s action films; or they returned to the old serial style, a series of 30-second episodes that told a complex romantic story.

Advertisements were thus removed from the flow of entertainment programming. Hyped in advance like movies, critically reviewed in print media like art exhibitions, and featured in nightly newscasts like current events or political struggles, event advertisements began to attack the flow *itself*, seeking to detach themselves from a cultural form now seen as boring and old-fashioned.

This shift in the structure of sponsorship can be dated with even more precision than the mid-1960s transition to spot advertising on television. Advertising first broke its alliance with network television on 22 January 1984, when Apple Inc. exploded the flow of Superbowl Sunday with a single, sensational $1.5 million spot directed by the film *auteur* Ridley Scott. Shown once, but endlessly analysed and rebroadcast, it became the prototype of the advertising 'event', a perennial candidate for best TV advertisement of all time. Everybody noticed how it used George Orwell's *1984* to attack Apple's competitor IBM as the company of brainwashed drones and zombies; not remarked on was the fact that those brainwashed zombies were sitting *en masse* in front of a huge TV screen, bathed in a mind-numbing homogenized stream of words and images. With the dramatic throw of a hammer, Apple's heroic representative exploded the screen, dealing a symbolic death-blow to television flow.

Apple's '1984' commercial did not use composed music; if one had wanted to score that famous hammer blow, one couldn't have done better than the archetypal explosion, complete with metallic crash, that caps the first movement of John Adams's *Harmonielehre* for orchestra (1984–85) – a breakthrough work that, like the Macintosh computer itself, was invented under great stress in Northern California and premiered to general acclaim, in this case in 1985. *Harmonielehre*'s new musical style, like the new visual style of advertising for the new computer, pushed the artistic depiction of old-fashioned, goal-directed heroism to the point of melodrama. Adams's rhythms and chord progressions were recognizably influenced by Glass's high-energy style; the first movement of *Harmonielehre* owes a lot to the climactic pullulating moments of *The Photographer*, first released on LP in 1983. Crucially missing, though, was Glass's 'logic of interruption': instead of cycling back over and over, each movement of *Harmonielehre* pushes ahead with single-minded intensity toward one, overwhelming expressive

climax. Adams, claiming boredom with minimalism's 'Great Prairies of non-event',[41] reframed the obvious looping of 1970s minimalism and postminimalism as surface detail, harnessing repetitive music's subliminal techniques to a triumphant return of the climax-as-*event* achieved through mastery of the long-range symphonic teleology he so admired in Anton Bruckner and Jean Sibelius. (In this light he should probably be labelled a Neo-Romantic Postminimalist, if such an ungainly music historiographic chimera is allowable.)

Harmonielehre is thus a symphonic drama presented *without* (commercial-type) interruptions.

Adams's aesthetic is thus *cinematic,* not televisual.

And thus his music – which might be a capsule definition of the inevitable historical passing of repetitive music as a cultural practice and a cultural form – is no longer going with the flow.

<click>

41 This favourite Adams *bon mot* is also from Steinberg's 1980 interview and is quoted in Steinberg, *'Harmonium'*, May, *The John Adams Reader,* p. 82.