Travis Christensen
April 27, 2003
History of Music
Professor Rischar

An Introduction to Intelligent Dance Music

Paralleling the experimental tradition of avant-garde music is IDM, a young but promising genre of electronic music that aims to provoke and astonish the mind as well as the body. The British popularized this offshoot of techno music in the early 1990s, but its origins and identity are as contested as the smugness of the genre's full name—Intelligent Dance Music. IDM musicians and modern avant-garde composers share common interests in creating intellectually stimulating music and challenging the conventions of music. Despite these similarities, IDM is as grounded in younger, less academic genres such as hip-hop and house music as it is scholarly music.

Before continuing, it is worth noting the multiplicity of appropriate names for this style of music. The term "IDM" was coined not by the creators of the music but by its listeners. Hyperreal, the Internet mailing list that coined the term in 1993, is still in operation.[1] Electronic musician Mark Bell calls the expression "a bit of a non-starter," adding that he does not know "any musician that will willingly call themselves IDM." Nonetheless, he understands the need for genre names to distinguish styles of music.[2] In an effort to counteract the unwanted elitist connotations of "Intelligent Dance Music," IDM record labels and artists have made strides to introduce alternative genre names, such as Warp's "electronic listening music" and Rephlex's "Braindance."[3] Other names

[1] Brian Behlendorf and Alan Parry, "IDM: Intelligent Dance Music" [homepage for Hyperreal IDM mailing list]. http://music.hyperreal.org/lists/idm/info.html. Accessed April 27, 2003.
[2] Mark Bell, interview by Travis Christensen, March 2003. Email.
[3] Anonymous, *The Braindance Coincidence* [official website of Rephlex Records]. http://www.rephlex.com/. Accessed 25 February 2003.

include the Spanish word *electronica*, which is too general, and "armchair techno," a term used by critics to ridicule "bedroom musicians." Because of the operative power its prevalence and shorthand lends it, the term "IDM" will be used in this paper.

Though chiefly a European phenomenon, IDM as a distinct style of electronic music owes more to African-Americans like the early '80s Detroit techno pioneers Derrick May, Kevin Saunderson, and Juan Atkins,[4] whose 1983 single "Techno City" gave techno its name.[5] Author and rave culture historian Simon Reynolds explains that by 1987 London clubgoers had grown tired of DJs and their "early seventies, sub-James Brown funk" with all its "elitist obscurantism" and "deference to a bygone, outdated notion of 'blackness.'" [6] DJs who started spinning Kraftwerk-influenced Detroit techno turned the British audience on to rougher and harder "breakbeat-and-sample collages that eschewed rapping in favor of absurdist sound-bites and, tempo-wise, were closer to house than hip-hop."[7] As Atkins explained to *Spin* writer Mike Rubin, "It wasn't that we went out to market Europe. They picked up on something that America wasn't interested in."[8] The UK has historically been ahead of musical trends, with the key precedents being Beatlemania and punk rock. In addition, British youth have been criticized for their obsession with black urban culture, with '80s graffiti and breakdancing "b-boy" crews sprouting up in imitation of landmark American hip-hop films like *Wild Style* and *Krush Groove*. Their eagerness to identify with cool black rebels such as Mays and their earnest appreciation of Detroit-style techno kindled an interest in electronic music that has yet to

[4] Mike Rubin, "A Tale of Two Cities," *Spin* 14/10, October 1998, 104.
[5] Anonymous, "A Timeline of Seminal Events in Detroit Techno History," *Knight Ridder Tribune* (15 January 2003), 1.
[6] Simon Reynolds, *Energy Flash: A Journey Through Rave Music and Dance Culture* (London: Picador, 1998), 35.
[7] Reynolds, 35.
[8] Rubin, 108.

be matched in its country of origin. Finally, it is widely believed that the drug culture of '80s Great Britain, notably the rampant use of stimulants and hallucinogens like mushrooms and Ecstacy, "helped open up minds to diverse, 'uncool' sounds."[9] "Rave" culture's spirit of experimentation fostered subsequent genres such as acid house, jungle, drum 'n' bass, and, in the early '90s, IDM.

Lying somewhere between the roles of cultural and historic importance is Kraftwerk, a popular German band that has been highly influential on many types of music, especially techno. Throughout the '70s and '80s Kraftwerk took the synthesizer, an electronic keyboard instrument that had been used predominately in art music and rarely in rock, and reintroduced it to popular music.[10] The resultant form of music, synth-pop, inspired the seminal album *Low* by David Bowie and Brian Eno, as well as artists like the Detroit techno innovators, Depeche Mode, New Order, and Michael Jackson.[11] Like electronic music's pioneers, Kraftwerk used computers to create music, but what distinguishes Kraftwerk is their firm grounding in pop style. Kraftwerk's catchy melodies and cheekiness—wrapped up in the guise of cold robotics—have had a significant impact on Aphex Twin, µ-ziq, and Björk, artists whose electronic music finds an impeccable balance between proficient musicality and expressive emotional qualities.

Because techno is a part of youth subculture, many artists find their inspiration not in the academic music of the past but through peers and their own experimentation.[12]

---

[9] Reynolds, 36-7.
[10] Pascal Bussy, *Kraftwerk: Man, Machine and Music* (Middlesex: SAF Publishing Ltd., 1993). Kraftwerk declined to work with Jackson and Elton John. Kraftwerk revolutionized the role of the synthesizer in popular music, but Raymond Scott used early electronic instruments to create advertiser jingles and short pieces of music decades earlier. The Beach Boys, one of Kraftwerk's key influences, were known to integrate electronics into their pop sound as well. However, synthesizers were largely underutilized before Kraftwerk.
[11] Andy Gill, "Kraftwerk," *Mojo*, April 1997.
[12] Mark Bell, interview by Travis Christensen.

Nonetheless, there are many topics in music theory that are central to IDM composition. These include atonality, the twelve-tone scale, and minimalism.

Atonality is the rejection of traditional tonality. According to *Baker's Biographical Dictionary of Twentieth-Century Classical Musicians*, the term originates from hostile critics who used it "as a derisive description of a type of modern composition in which tonality was almost entirely disenfranchised and integral chromaticism served as the guiding principle of melodic writing."[13] The avoidance of repetition of a particular tone precludes an "adventitious tonic" and consequently invites a dissonant harmonization.[14] In defense of atonality, composer John Cage once caustically observed that the "European structure, based on tonality, would not admit noises or pitches outside the major and minor scale, and was incorrect."[15] In atonal composition, octaves are often replaced by major sevenths and perfect fifths by tritones to avoid a tonic-dominant relationship, with "ascending and descending melodic fourths [becoming] the hallmark of atonal writing."[16]

Atonality is often heard in dodecaphonic music, a movement formulated by Arnold Schoenberg with roots dating back to Wagner's extended tonality, Debussy's impressionism,[17] and a highly chromaticized passage of Mozart's *G Minor Symphony* "derived from three mutually exclusive diminished-seventh chords, aggregating to 12 different notes."[18] Dodecaphonic music is by nature monothematic, each work being

---

[13] Nicolas Slonimsky, *Baker's Biographical Dictionary of Twentieth-Century Classical Musicians* (New York: Schirmer Books; London: Prentice Hall International, 1997), 1049.
[14] Slonimsky, 1049.
[15] John Cage (*The Observer Magazine*, 1982) quoted in Ian Crofton and Donald Fraser (eds.), *A Dictionary of Musical Quotations* (New York: Schirmer Books, 1985), 7.
[16] Crofton, 7.
[17] Don Michael Randel (ed.), *The Harvard Biographical Dictionary of Music* (Cambridge, Mass.: Belknap Press of Harvard University Press, 1996), 804.
[18] Slonimsky, 1558. I am indebted to this source for material throughout this paragraph.

entirely made up of a row of twelve different notes of the chromatic scale. The tone-row can be used in original, retrograde, inversion, and retrograde inversion conjugate forms. "Melody, harmony, and counterpoint are functions of the tone-row," which may appear "horizontally as melody, vertically as harmony, and diagonally as canonic counterpoint." A "strong mutual valence" of these components is usually established in order to avoid suggestion of chordal derivation.

In twelve-tone composition math plays a heavy role. Milton Babbitt's essay *Some Aspects of Twelve-Tone Composition* sheds light on the system that he elaborated on in his 1947 piece *3 Compositions for Piano*[19] and his later experiments with computers.

> Mathematics—or, more correctly, arithmetic—is used not as a means of characterizing or discovering general systematic, pre-compositional relationships, but as a compositional device, resulting in the most literal sort of "programme music," whose course is determined by a numerical, rather than by a narrative or descriptive, "programme." The alleged "total organization" is achieved by applying dissimilar, essentially unrelated criteria of organization to each of the components, criteria often derived from outside the system, so that—for example—the rhythm is independent of and thus inseparable from its pitch structure.[20]

There is no more appropriate a modern example of this than "Bine," a 2001 piece by the Sheffield, England duo Autechre that embodies the inhuman degree of precision Babbitt's method hinted toward in his essays. Boldly contrasting with the popular conception of "dance music," this piece is atonal by definition, lacking a tonal center and eschewing the octave scale. Though not conforming strictly to the numeric definition of dodecaphonic music, its pitch range is self-consciously limited. Murky sounds of indecipherable origins bounce to and fro in rhythmic inversion, retrogression, and retrograde without maintaining a consistent time signature; in fact, like many of Autechre's works, this piece layers multiple time signatures on top of each other and

---

[19] Randel, 34.
[20] Milton Babbitt, "Some Aspects of Twelve-Tone Composition," in *The Garland Library of the History of Western Music: Twentieth-Century Music* [10], ed. Ellen Rosand, 359-368. (New York: Garland, 1985), 361-2.

morphs metrically to create "an uncomforting feeling."[21] Though the rhythm patterns change, they do so organizationally to the other instruments or sounds in a mensural form, [22] its timbral organization realizing Babbitt's theory and Iannis Xenakis's mathematically structured concept of music as architecture.[23]

Electronic music that largely rejects melody and standard rhythm risks inapproachability. However, tracks like Autechre's "Bine" and "Recursion" by Jega use intervallic symbolism to evoke associations between note intervals and ideas.[24] Bach set the standard for many associations, evoking considerable musical precision in places where "words could not always be heard[.] An intervallic equation contributed to the clarity of meaning." [25] The "ascent to heaven was depicted by a rising diatonic scale," "torment was expressed by involuted chromatic passages," the "descent into hell was intervallically related to the falling diminished seventh," and so forth. "Bine" exemplifies the latter two cadences, while "Recursion" uses electronic equipment and/or music software to constantly "stutter" the monothematic acid-tweaked drum machine melody, giving an intense and suspended feeling of uneasiness.

A less woozy example is the chromaticism of "4" by Aphex Twin, who uses fast 4/4 beats and carefully placed high-pitched, sustained modulated synthesizer notes for a somewhat whimsical effect, anticipating the tonic note. Its exaggerated strings—played live, sampled, and then rearranged with sequencing software—and intricately programmed snare drum flourishes carry their own connotations, including classical

[21] Mark Bell, interview by Travis Christensen.
[22] Richard Rischar, personal conversation with Travis Christensen.
[23] Robert Coburn, "Xenakis: Electronic Music" [sound recording review], *Leonardo* 33/1 (2000), 65.
[24] Although these pieces are instrumental they do generally ascribe to intervallic symbolism, a term that typically refers to music with words.
[25] Slonimsky, 1570.

music, cartoons, rave culture, and the military. Because IDM is typically non-lyrical, conveying ideas and emotions through music is of the utmost importance.

Somewhat contentious is the connection between IDM and minimalism. Not only is the movement tied to a bygone era of avant-garde music, many IDM artists strive not to be minimalist, aiming for warmth and relative accessibility, or, alternatively, a full and assertive sound. Still, the similarities merit some discussion. In the historic sense, minimalism was "a 1960s reductionist compositional movement[…] notable for its maximal effect out of remarkably minimal means."[26] The chief composers attributed to this movement are Steve Reich, Terry Riley, and Philip Glass, men who continue to have a strong influence on modern music.[27] More generally the term is applied to any music that is based on "the repetition of motifs (simple, short snatches of tune) whose melodic and rhythmic characteristics may be exploited to achieve a multilayered effect of considerable complexity." Minimalist composition resembles rock in its use of ostinatos, "clear and simple phrase structure, and a fundamental concern with rhythm," but it also reflects Eastern music in its "static quality and occasional use of a drone, and its basic hypnotic quality established through repetition." Author Richard Trombley deftly attributes this last characteristic with the movement's "relationship with the hallucinogenic, consciousness-altering drug culture," directly paralleling the history of rave music as documented by Simon Reynolds in *Energy Flash*.

Besides this extra-musical similarity, the description attributed to minimalism could nearly pass as the definition of techno music. A clear melodic motif is established early on in most IDM, for instance, and from there it is repeated as an ostinato in various

[26] Slonimsky, 1575.
[27] Richard Trombley, "Minimalism," in *Music in the 20th Century*, ed. Hao Huang, et al., 417. (Armonk, NY: M.E. Sharp, 1999), 417-418. I am indebted to this source for material throughout this paragraph.

distinguishable forms. Like other forms of dance music, IDM shares "a fundamental concern with rhythm." However, IDM differs from the majority of techno—most of which is created for the dance floor—and avant-garde minimalist music in its resistance to periodicity and simple repetition, which minimalist composers such as Reich often develop over a period of several minutes while IDM artists tend to introduce conjugate forms within seconds of the listener pressing "play." It is this creative ambition that probably spawned the terms Intelligent Dance Music—itself derivative of Warp Records' landmark compilation *Artificial Intelligence*[28]—and Braindance.

Minimalism also concerns itself with pure intonation and the harmonic series,[29] clashing with the atonal style of Schoenberg's twelve-tone scale. Aided by breakthroughs in technology, "pure tones and the whole overtone series (the series of notes produced by fractions of the frequencies of tones)" can be generated and sustained with the addition and subtraction of harmonics on synthesizers and through computer software.

Although they do not integrate the African style drumming Reich introduced to later minimalist music, the IDM duo Telefon Tel Aviv offer a stark tribute to minimalist composers on their debut album *Farenheit Fair Enough* via the track "Life is All About Taking Things in And Putting Things Out." Heavily filtered but melodically simple guitar and piano motifs repeat for nearly five minutes with little progression; the main instruments, sampled live,[30] do shift phases and change in pitch, but the hypnotic calmness of this track belies the swishing abstract noises functioning as the drone barely

[28] John Bush, *All Music Guide: Artificial Intelligence* [sound recording review]. http://www.allmusic.com/cg/amg.dll?p=amg&uid=2:00:55|PM&sql=Aaekbikvjbbc9. Accessed 25 February 2003.
[29] Trombley, 417. I am indebted to this source for material throughout this paragraph.
[30] Joshua Eustis quoted in Native Instruments, "Telefon Tel Aviv." http://www.nativeinstruments.de/index.php?telaviv_us. Accessed 17 April 2003.

beneath the contrapuntal guitar and piano. These skittering noises are previously extra-musical timbral resources adopted for their sensual characteristics regardless of their generic functional identity[31]—recontextualized noises that electronic pioneer Edgar Varèse would call "liberated sounds."[32]

Interesting and oftentimes funny sounds are fundamental to IDM. Coming from a history of cultural *détournement*[33] and the rich sampling traditions of hip-hop, industrial, and proto-electronic music, IDM makes use of both exotic and commonplace sounds stripped of their original context and, typically, distorted and programmed beyond ready recognition. In the tape-splicing tradition of *musique concrète*,[34] sounds can be created and manipulated with synthesizers through a process called "patching."[35] These sounds, called "audio signals," are sine waves designed with perfect pitch and no overtones. Various components of synthesizers facilitate the processing of sounds. Likewise, the ever-increasing power and availability of computers aids composition and recording. Music software simplifies notation and provides portable, manageable, transferable, and illicitly obtainable (i.e. free) virtual instruments for the masses.[36]

For professional musicians, computers break down barriers like the need for other performers or the inability to play drums at a certain tempo or meter. More abstractly, music software manages and manipulates sampled sounds in ways that could never be

[31] Stan Link, "The Work of Reproduction in the Mechanical Aging of an Art: Listening to Noise," *Computer Music Journal* 26/1 (2001), 41.
[32] Link, 42.
[33] Astrid Vicas, Reusing Culture: The Import of Détournement, *The Yale Journal of Criticism* 11/2 (1998), 381.
[34] Robert Dearling (ed.), *The Illustrated Encyclopedia of Musical Instruments* (New York: Schirmer Books, 1996), 147.
[35] Dearling, 153. I am indebted to this source for material throughout this paragraph.
[36] Dearling, 157. I am indebted to this source for material throughout this paragraph. It is worth noting that the theoretical utopia of "free music software" is tainted by the overarching oligarchic economic system. Making music on pirated software is dependent on possessing the following: 1) A relatively powerful computer; 2) Internet access; 3) Technical know-how for scouting out illegal programs; 4) A large amount of time that can be devoted purely to learning the software. This is actually a fairly exclusive hobby.

replicated by live instruments. Richie Hawtin, for example, used the program Final Scratch to assemble *DE9: Closer to the Edit*, a collection of music for which Hawtin "broke down 75 tracks into hundreds of snippets and then reassembled the snippets into an hour of minimalist [techno] pounding."[37] One transformation includes a piece by Philippe Cam that was once "nothing but an organ note for about 10 minutes" and is now a "dance classic" in the mix.

> General methods of computer music production include "Drag and Drop," where
>
> > musical material might consist of a collection of samples, and the musical processes might be different ways of playing the samples with or without looping, pitch shifting, etc. The performer selects a musical object, drags it to the appropriate part of the surface, and drops it onto the desired musical process.[38]

This simple process demonstrates the power and ease afforded by computers as well as the interest people have in making music without years of practice or formal education. "Drag and Drop" style programs like Fruity Loops enable anyone to begin making electronic music without any background in music theory or history. Only slightly more complicated is granular "scrubbing," acute manipulation of time-scale without changing pitch or spectral shape. This is prevalent in ambient music and forms of IDM that feature abstract drones like in "Bine." In a live performance setting, scrubbing is often used to radically alter familiar sounds like ethnic singing and horn blowing. John Cage, who challenged listeners to tune into and appreciate extra-musical sound, predicted: "Electronic instruments… will make available for musical purposes any and all sounds that can be heard."[39] By exploring these possibilities, IDM rejects the role of mere

---

[37] Kelefa Sanneh, "Old-Fashioned Sounds From Masters of Electronica," *The New York Times*, Late Arts and Leisure Desk Final Edition, 4 November 2001, Section 2, 17. I am indebted to this source for material throughout this paragraph.

[38] David Wessel and Matthew Wright, "Problems and Prospects for Intimate Musical Control of Computers," *Computer Music Journal* 26/3 (Fall 2002), 11-22. I am indebted to this source for material throughout this paragraph.

[39] John Cage (*Silence* (1961), "The Future of Music: Credo" (1937)) quoted in Ian Crofton and Donald Fraser (eds.), *A Dictionary of Musical Quotations* (New York: Schirmer Books, 1985), 59.

entertainment given to dance music and creates music that Varèse would say "explodes in space."[40]

The unconventional use of new technology—re-christening music as data—demands a redefinition of music. Computer music pioneer Paul Lansky is quoted in a music journal for once saying "the state of technology demanded a fundamental conceptual change that obviated a need for the category of 'recording.'"[41] This is even truer today than it was when Lansky began his experiments with computers in the '70s. With the radical advancement of hardware and software, literally every detail of the musical composition can be tweaked—and obsessed over. Mark Bell, a critically and commercially successful veteran artist on Warp Records under the name LFO and a renowned producer of landmark albums by Björk and Depeche Mode, offers his insight by email:

> You can download professional software recording tools along with a multitude of [VST] instruments and processing software for nothing. It's so easy to chase your own tail and go right up your own ring in no time! As a listener it just turns me off when things seem to be complicated for the sake of it, as a technical musician it bores me as I know exactly how they've done it.[42]

While some musicians continue to explore the limitless depths of music software, others are trying hard to maintain discipline. When asked if Bell could record an album of the same caliber as his first two using no gear or software fresher than 1996, the year LFO's *Advance* was released, he seemed quite confident he could; in fact, he regularly uses very old equipment and instruments. Kid606 expresses a consenting opinion:

> "There's a new piece of software every day," says Oakland, California's Miguel Depedro, who runs the Tigerbeat6 label and records whacked-out sampladelic electronica under the name Kid606. "By the time you've learned how to use something, there's already something else. I

Crofton, 7.
[40] Edgar Varèse (Ewen, *American Composers*, 1982) quoted in Ian Crofton and Donald Fraser (eds.), *A Dictionary of Musical Quotations* (New York: Schirmer Books, 1985), 151.
[41] Link, 34.
[42] Mark Bell, interview by Travis Christensen.

> would love for everything to just pause right now - no new advances, no faster computers, no new Max. And then we'll see what we do for the next two years."[43]

While musicians in IDM seem to depend heavily on the latest technology to create an aesthetic, this is not always the case. Richard Devine, who along with Schematic label mates Otto Van Schirach and Phoenicia records highly technical and abrasive computer music, is actually classically trained and inspired by the music theory of avant-garde composers.[44] Autechre reject the notion that their musical aesthetic is the sound of "machines 'going wrong'" because they put just as much work and consideration into their music as avant-garde composers.[45] The difference between Autechre and straightforward electronic musicians is that they "[play] with people's attention" by modifying the expected loop or rhythm. "It adds life to what [we]'re doing instead of, say, the same clinical or identical loop." Only when integrating human intention can so-called "computer music" exhibit human qualities like charming imperfections. As Aristotle once wrote, "Voice is a particular sound made by something with a soul; for nothing which does not have a soul has a voice."[46]

For many of today's electronic artists, especially those on the funk- and hip-hop-influenced Ninja Tune label, it is vital to avoid sounding sterile. Artists who grew up listening to a variety of music realized that

> listeners learned to "hear through" noise. The dust and nicks on vinyl recordings, amplifier hum, or speed inaccuracies of tape mechanisms produced types of noise that were basically as predictable as potholes on a familiar road.[47]

---

[43] Erik Davis, "Songs in the Key of F12," Wired 10/5 (May 2002). Available from http://www.wired.com/wired/archive/10.05/laptop_pr.html. Accessed 26 February 2003.
[44] Richard Devine quoted in Ari Kaplan "Simply Devine: Three Questions with Richard Devine," *Artbyte* (June 2001). Available from http://www.arikaplan.net/artbyte.pdf. Accessed April 27, 2003. I am indebted to this source for material throughout this paragraph.
[45] David Hemingway, "Autechno!," *Melody Maker* 74/5 (1 February 1997), 20. I am indebted to this source for material throughout this paragraph.
[46] Aristotle, *De Anima*, Books II and III, translated by D. W. Hamlyn (Oxford, 1993), 32.
[47] Link, 36. I am indebted to this source for material throughout this paragraph.

With technology, some electronic musicians such as house DJ's started to make their music "too" crisp and precise. To resurrect the warm feeling of listening to a crackling old record and share with the listener the intimate process of creating special music, artists like Amon Tobin make a point to not only bring these clicks and hisses back but to also make them central to the music. The recording environment can be reconstructed through the inherently nostalgic sound of technological errors; Tobin uses these noises to create an artificial creational history. The quiet musical warbling beneath the found sound of hippie kids talking in "Rosie's" right before a string of loud mechanical beats suggests a lost audio recording of some kind of forgotten apocalypse. In other terms, retro filtering functions as a "narrative world" that "generates circumstantial listening in which music has been heard in a more sensory, rather than ideal, acceptation. In short, it asserts experience."[48] The transductional noise on Tobin's "Searchers" creates a sort of musical lubricant that makes fluid the dozen or so samples the artist took from obscure Indian films and forgotten instrumental music, sources that under normal circumstances clash heavily. Because noise is "the very destroyer of objective accuracy" and a render of "everything in past tense" according to *Computer Music Journal* writer Stan Link, the samples flow seamlessly to create an ominous, Eastern sounding, original piece of music.

Because immaculate production and strong composition are both valued, IDM attracts a variety of listeners. As Bell puts it,

> this music has both the number crunching geeks and the honest appreciation fans supporting. All music takes on it's own life once you put it in the public domain, it means different things to each person, it could be the recording that makes you happy, sad, frustrated or inspire you to make something, they're all valid. You get the same from classical music to rock, it's just people trying to work out what the thing they heard was about.[49]

[48] Link, 37.
[49] Mark Bell, interview by Travis Christensen.

IDM with strong melodies and cool sounds has a broad appeal, easily broader than the repetitiousness of typical dance music. Perhaps this is why rock bands and Hollywood are turning increasingly to IDM for assistance and inspiration, and why the genre's pioneers, most notably Richie Hawtin, were able to sell mutated Detroit techno to white suburbanites in America and Europe.[50] IDM's non-lyrical form and inherent demands on the listener deprive it from a wider following, however. Like in minimalism, the intricacies of IDM merit and generally demand a mode of "structural listening" that "amounts to following and comprehending the unfolding realization, with all its inner relationships, of a musical conception" that "reinforces [the music's] isolation from society."[51] IDM illustrates musicologist Jacques Attali's understanding that music "can provide a viable, fully realized conjunction of the theoretical and the practical, a form of theorizing which coincides with a formal practice."[52] By reveling in the possibilities of music that could never have existed without modern technology, IDM is potentially the richest manifestation of the imagination in musical history. Clearly these listener demands have proven rewarding, as IDM has as loyal and fanatical a following as rock.[53]

Like hip-hop and many other genres, IDM is syncretic. As a rebel genre diverging from mainstream dance music, IDM has few musical boundaries and an agenda to push the envelope. It is impossible to pin any one definition on IDM as it contains a perhaps unlimited spectrum of possibilities. The multivariate and vague nature of IDM

---

[50] Rubin, 108. Detroit natives and rave culture critics might be quick to compare Hawtin's globetrotting warehouse DJ performances to the repackaging of black music done by Elvis Presley earlier and Eminem today.
[51] Subotnik (1991) as quoted in Link, 43.
[52] Jacques Attali quoted in John Oswald, "Plunderphonics, or Audio Piracy as a Compositional Prerogative" in *The Cassette Mythos*, Autonomedia, 1990. Available from http://www.halcyon.com/robinja/mythos/Plunderphonics.html. Accessed April 21, 2003.
[53] Chris Norris, "Sound Boys," *Spin* 14/1 (January 1998), 76.

allows schisms like ironic synth-pop revivalism, breakcore, glitch, mechanized instrumental hip-hop, ambient, and other genres to coexist.

Electronic music as a whole is similarly diverse. However, some distinctions can be made to distinguish IDM from other types of electronic music. Whereas the style of ambient music pioneered by Brian Eno in the '70s can be appreciated either as foreground or relegated to the background, even the most sedate of music commonly pegged as IDM contains sounds too stimulating to ignore. For example, the ever-evolving noises in Telefon Tel Aviv's "Life is All About Taking Things in And Putting Things Out": although this slow piece serves as a "breather" on their conceptual album,[54] its programmed tremolo repetition of notes in the upper registers of a real piano grabs the listener's attention because it is too processed to be real. Its stereo mixing enhances the stairs-like effect of the descending melody. Intricate production and compositional details are usually excluded from "wallpaper" ambient music and dance floor techno, with many notable exceptions such as Orbital. A further distinction between true dance music and IDM is the latter's inclination toward long-form albums versus the former's preference for twelve-inch vinyl singles heard in clubs. Though much of IDM is danceable, the emphasis of the music is placed squarely on attentive listening.

IDM's crucial usage of technology has instilled a sense of community among musicians who typically produce their music alone.

> Certainly the systems will not spontaneously tell you how to write good music nor are they particularly interested in imposing style. What they offer is a kind of conceptual framework and a sense of community. One doesn't need to know all or any of the other users, but if you wish to, they are probably out there, using the system in much the same way.[55]

[54] John Krogh, "Telefon Tel Aviv," *Keyboard* 28/2 (February 2002), 56.
[55] Alistair Riddell, "Data Culture Generation: After Content, Process as Aesthetic," *Leonardo* 34/4 (2001), 338.

This can be observed on many Internet forums such as Xltronic.com, where members of its message board regularly exchange ideas and mp3's of their music for remixes and compilations. The Internet is a powerful tool for distributing music, although the rampant sharing of music usually transgresses copyright laws.[56] Mark Bell sees it as a tricky issue because it is theft and it does take money away from low-income musicians and labels. Nonetheless, he indulges in the activity himself—more likely as a preview than a substitute for legally purchasing a piece of music—and offers an observation on how file sharing is actually furthering the evolution of electronic music:

> I think lots of people are more indirectly influenced by the early pioneers of electronic music, It's like the rock cliché when people site Can, [Neu!] etc. maybe later on people get to search the past for the roots of what they love, that's what I find interesting about soulseek etc where everyone can hear music from allsorts of different collections. People with Venetian Snares have Dolly parton, John Cage bruce springsteen and Autechre…I'm quite excited what music will come soon from kids that are exposed to such a wide selection of music from allsorts of times.[57]

By this philosophy it could be surmised that IDM is in its golden age. Though still a new genre it is already drenched in divergent academic and pop influences, inspiring its young and passionate experimenters to create unique and challenging music never before possible outside of the imagination.

[56] Riddell, 340.
[57] Mark Bell, interview by Travis Christensen.

Bibliography

Anonymous. "A Timeline of Seminal Events in Detroit Techno History." *Knight Ridder Tribune* (15 January 2003): 1.

Anonymous. *The Braindance Coincidence* [official website of Rephlex Records]. http://www.rephlex.com/. Accessed February 25, 2003.

Aristotle. *De Anima*, Books II and III. Translated by D. W. Hamlyn. Oxford, 1993.

Behlendorf, Brian, and Alan Parry. "IDM: Intelligent Dance Music" [homepage for Hyperreal IDM mailing list]. http://music.hyperreal.org/lists/idm/info.html. Accessed April 27, 2003.

Bell, Mark. Interview by Travis Christensen, March 2003. Email.

Bush, John. *All Music Guide: Artificial Intelligence* [sound recording review]. http://www.allmusic.com/cg/amg.dll?p=amg&uid=2:00:55|PM&sql=Aaekbikvjbbc9. Accessed February 25, 2003.

Bussy, Pascal. *Kraftwerk: Man, Machine and Music.* Middlesex: SAF Publishing Ltd., 1993.

Crofton, Ian, and Donald Fraser, eds. *A Dictionary of Musical Quotations*. New York: Schirmer Books, 1985.

Coburn, Robert. "Xenakis: Electronic Music" [sound recording review]. *Leonardo* 33/1 (2000): 65.

Davis, Erik. "Songs in the Key of F12." *Wired* 10/5 (May 2002). Available from http://www.wired.com/wired/archive/10.05/laptop_pr.html. Accessed January 26, 2003.

Dearling, Robert, ed. *The Illustrated Encyclopedia of Musical Instruments.* New York: Schirmer Books, 1996.

Erickson, Karl. "I am Here, I am Glad you are There: Disorientation and Electronic Music." *New Art Examiner* 26/4 (December 1998/January 1999): 19-23.

Fink, Robert. "Elvis Everywhere: Musicology and Popular Music Studies at the Twilight of the Canon." *American Music* 16 (Summer 1998): 135.

Gill, Andy. "Kraftwerk." *Mojo* (April 1997). Available from http://www.sci.fi/~phinnweb/krautrock/mojo-krautrock.html. Accessed April 6, 2003.

Hemingway, David. "Autechno!" *Melody Maker* 74/5 (1 February 1997): 20.

Kaplan, Ari. "Simply Devine: Three Questions with Richard Devine." *Artbyte* (June 2001). Available from http://www.arikaplan.net/artbyte.pdf. Accessed April 27, 2003.

Key, Susan, and Larry Rothe, eds. *American Mavericks: Musical Visionaries, Pioneers, Iconoclasts*. Berkeley, CA: University of California Press, 2001.

Krogh, John. "Telefon Tel Aviv." *Keyboard* 28/2 (February 2002): 56.

Link, Stan. "The Work of Reproduction in the Mechanical Aging of an Art: Listening to Noise." *Computer Music Journal* 26/1 (2001): 34-47.

Native Instruments. "Telefon Tel Aviv" [interview with Joshua Eustis]. http://www.nativeinstruments.de/index.php?telaviv_us. Accessed April 17, 2003.

Norris, Chris. "Sound Boys." *Spin* 14/1 (January 1998): 76-81.

Oswald, John. "Plunderphonics, or Audio Piracy as a Compositional Prerogative." In *The Cassette Mythos*, Autonomedia, 1990. Available from http://www.halcyon.com/robinja/mythos/Plunderphonics.html. Accessed April 21, 2003.

Randel, Don Michael, ed.). *The Harvard Biographical Dictionary of Music*. Cambridge, MA: Belknap Press of Harvard University Press, 1996.

Reynolds, Simon. *Energy Flash: A Journey Through Rave Music and Dance Culture*. London: Picador, 1998.

Riddell, Alistair. "Data Culture Generation: After Content, Process as Aesthetic." *Leonardo* 34/4 (2001): 337-343.

Rosand, Ellen, ed. *The Garland Library of the History of Western Music: Twentieth-Century Music*. New York: Garland, 1985.

Rubin, Mike. "A Tale of Two Cities." *Spin* 14/10 (October 1998): 104-109.

Sanneh, Kelefa. "Old-Fashioned Sounds From Masters of Electronica." *The New York Times*, Late Arts and Leisure Desk Final Edition, 4 November 2001, Section 2, 17.

Slonimsky, Nicolas. *Baker's Biographical Dictionary of Twentieth-Century Classical Musicians*. New York: Schirmer Books; London: Prentice Hall International, 1997.

Trombley, Richard. "Minimalism." In *Music in the 20th Century*, ed. Hao Huang, et al. Armonk, NY: M.E. Sharp, 1999. 417-418.

Vicas, Astrid. "Reusing Culture: The Import of Détournement." *The Yale Journal of Criticism* 11/2 (1998): 381-406.

Wessel, David, and Matthew Wright. "Problems and Prospects for Intimate Musical Control of Computers." *Computer Music Journal* 26/3 (Fall 2002): 11-22.

Appendix A: Excerpts from Mark Bell Email Correspondence

From Travis Christensen to Mark Bell:

1) in a few short words, what is electronic music? how is it different from classical, rock, and other preexisting types of music?

2) how is "intelligent" techno different from kraftwerk? detroit techno? late 80s house music?

3) what do some of the electronic musicians on warp, ninja tune, rephlex, planet mu, and other labels (doesn't matter which) contribute that advances music and/or challenges traditional musical structure/convention?

4) in your opinion, who are some of the artists that have most contributed to this rewriting of the rules so to speak? (this wouldn't apply if you were to think that "electronic listening music" (remember that? whose idea was that anyway?) hasn't been anything special to music, but i doubt you feel that way).

5) how important is iconoclasm to techno artists?

6) "There's a new piece of software every day. By the time you've learned how to use something, there's already something else. I would love for everything to just pause right now - no new advances, no faster computers, no new Max. And then we'll see what we do for the next two years." this is something kid606 said in an interview. you seem to feel pretty strongly in a negative way about the abundant usage of DSP and artists just generally overdoing the production aspect of their music. how do you think this has affected modern electronic music?

7) do you still use any of the equipment you recorded "frequencies" on? do you think you could still make banging tracks using JUST this gear? could anyone today?

8) who were the first acts signed to warp: you and NoW? what motivated/inspired the founders to start the label? do you agree that warp and the artists on the label largely set the trends for present day electronic music?

9) do you sense a genuine importance of electronic music to pop artists? chart topping music seems to implement many elements of instrumental electronic music, especially the software used to create it, but to me it doesn't seem to adopt any of the guiding principles.

10) what do you think of the excessive scrutinizing and obsessing done by fans of some of the most popular electronic artists? tedious, boring, completely uncool? or a showing of respect and sincere appreciation? is this type of fandom inseparable from the music (like rock) or could it survive without it?

11) how important to techno acts are the pioneers of electronic music from the early to mid 20th century?

12) how would you respond to this quote from a musicologist i found when researching this topic. is this phenomenon really central/systematic of today's electronic music?

> For instance, in the Autechre track "Under BOAC" when suddenly out of the skittering noises, bass thuds, metallic glonks, and queasy melodies, the phrase "But is it washable?" in a distorted, robotic voice jumps out of the mix, it is very disconcerting. It has no apparent relation to the rest of the song and it seems to yearn for some sort of meaning or raison d'être. When I hear it, I want it to belong, but I can't find a way to

include it. It is the only (semi-)human element in the recording, and so connects to the listener, but it just doesn't pertain to anything else. The result is that the whole process of listening to the music becomes alienating. It places me in the position of the Other to a nearly autonomous music. It doesn't need me to fill in its blanks, which can't be filled. I, however, still seek to fill in those blanks and make connections. It's how I come to understand it. But, the music remains alien and alienating. It is outside of me and often seeks to remind me of this fact.

13) how long will it be until musicologists accept the type of music artists such as you, bjork, warp, ninja tune, rephlex, etc. etc. have been making for many years now? why do you think they're so slow to embrace it? i just wrote a 13 page paper giving my take on this question but i'm curious as to what you have to say about it.

and this last one's especially for bjork if she's up for it (hope so!)

14) what is it about electronic sounds that mesh and pleasantly contrast with singing so well?

Response from Mark Bell to Travis Christensen:

1. Electronic music is music with electronic instruments! I know the line is getting more and more blurred as nearly every 'real band' has access to a pc now and doesn't need to be a synth geek collector to get some nice electronic sounds anymore. The same applies to electronic based music sounding acoustic, you can endlessly manipulate samples to sound as if they are in the 'real world' but are purely within a laptop…so… I think it's quite blurry soon to be even more blurry!
2. The whole Intelligent dance music thing is a bit of a non starter for me. I don't know any musician that will willingly call themselves IDM, I understand the need for genres so you can communicate what the music sounds like without actually hearing it but to be honest I can see direct parallels to what kraftwerk were doing, Detroit techno (The philosophy of sound and machine on the Detroit label ART-)
3. On the labels you said I think a lot of them know each other and have a common joy of out doing each other, most go to similar clubs and play at similar parties so the exchange of ideas can happen quite quickly rather than waiting 3 months after someone has recorded it, go to the shop, then be influenced by it
4. I think Kraftwerk, Brian Eno and Bjork have made a massive difference to popular music with there naked passion for electronic noises and embracing them as just another tool to make music has helped everyone from the prodigy to Madonna. If you're talking about non 'pop' music there really are too many to mention….
5. Iconoclasm is very important to some people in electronic music (Aphex, Squarepusher/ me!/ Autechre/ Kid606 I think etc.) but for the most case a lot of people regurgitate old ideas or try and be too reverencial to past trends.
6. The massive advancement in technology ie the internet has brought soo much to soo many people soo quickly, You can download professional software recording tools along with a multitude of vst instruments and processing software for nothing. It's so easy to chase your own tail and go right up your own ring in no time! As a listener it just turns me off when things seem to be complicated for the sake of it, as a technical musician it bores me as I know exactly how they've done it + I know many good people like watching others masturbate but in the audio world it's like watching your mum fold your socks in that special way so they just slip on (actually I don't mind watching her do that but you know what I mean….)
7. I still use all my original gear + loads of other crap I've accumulated over the years. It's like if each month a new guitar was made but had a new extra string, then another string etc. .and you gave up on your old guitars for just that reason….it's silly

8. Rob and Steve used to own a record shop in Sheffield and people would bring them white labels to sell in the shop so they thought they could do a better job of getting them heard/distributed so they did! I think lots of people look to warp for inspiration just because the artists have free reign on what they want to do and it's relatively well distributed
9. As the nature is of pop music, it is throwaway music, serve it while it's hot. An odd noise or interesting production technique is massively helpful to get the unsuspecting publics ears to prick up and have a listen
10. this music has both the number crunching geeks and the honest appreciation fans supporting. All music takes on it's own life once you put it in the public domain, it means different things to each person, it could be the recording that makes you happy, sad, frustrated or inspire you to make something, they're all valid. You get the same from classical music to rock, it's just people trying to work out what the thing they heard was about.
11. I think lots of people are more indirectly influenced by the early pioneers of electronic music, It's like the rock cliché when people site Can, Noi etc. maybe later on people get to search the past for the roots of what they love, that's what I find interesting about soulseek etc where everyone can hear music from allsorts of different collections. People with Venetian Snares have Dolly parton, John Cage bruce springsteen and Autechre…I'm quite excited what music will come soon from kids that are exposed to such a wide selection of music from allsorts of times.
12. I think Ae especially like to play around with an uncomforting feeling in their music, layers of different time signatures going in and out of focus etc I'm sure they intended exactly that what you were quoting. + I'm sure they were having fun as most of their track titles do mean something to them, lots of it is just private jokes.
13. I really don't know, maybe it's hard to have a leap of faith and put yourself on the line and actually try and take something serious without having the advantage of retrospect to prove your theories?
14. I sent her this at the bottom of an e-mail I sent today….