A Few Antecedents

The Age of Inventions
The 1800s produce a whole series of inventions that set the stage for the creation of electronic music, including the telegraph (1839), the telephone (1876), the phonograph (1877), and many others. Many of the early electronic instruments come about by accident: Elisha Gray’s ‘musical telegraph’ (1876) is an extension of his research into telephone technology; William Du Bois Duddell’s ‘singing arc’ (1899) is an accidental discovery made from the sounds of electric street lights.

The Telharmonium
Thaddeus Cahill’s telharmonium (aka the dynamophone) is the most important of the early electronic instruments. Its first public performance is given in Massachusetts in 1906. It is later moved to NYC in the hopes of providing soothing electronic music to area homes, restaurants, and theatres.

However, the enormous size, cost, and weight of the instrument (it weighed 200 tons and occupied an entire warehouse), not to mention its interference of local phone service, ensure the telharmonium’s swift demise. No recordings of the instrument survive, but some of its principles are later incorporated into the Hammond organ. More importantly, Cahill’s idea of ‘canned music,’ later taken up by Muzak in the 1960s and more recent cable-style systems, is now an inescapable feature of the contemporary landscape.

Ferruccio Busoni
This Italian composer reads about the telharmonium and is prompted to consider the future of music.

(1907) “Sketch of a New Aesthetic of Music”: Suddenly, one day, it seemed clear to me that full flowering of music is frustrated by our instruments ... In their range, their tone, what they can render, our instruments are chained fast and their hundred chains must also bind the composer....

... Let us take thought, how music may be restored to its primitive, natural essence; let us free it from archectonic, acoustic and aesthetic dogmas; let it be pure invention and sentiment, in harmonies, in forms, in tone-colours ... let it follow the line of the rainbow and vie with the clouds in breaking sunbeams; let Music be naught else than Nature mirrored by and reflected from the human breast; for it is sounding air and floats above and beyond the air; within Man himself as universally and absolutely as in Creation entire...

Alexander Scriabin
This short-lived Russian visionary composer imagines his last work to be a vast, seven-day apocalyptic showcase for his convulsive music. Called Mysterium, it would have included music, dance, changing lights and smells, and bells suspended from clouds. Left unfinished at his death in 1915, it inspires many later composers to propose similar ideas.
The Culture of Noise

**Futurism**
(1909) “The Founding and Manifesto of Futurism,” article by Filippo Tommaso Marinetti:
We will sing of great crowds excited by work, by pleasure, and by riot; we will sing of the multicolored, polyphonic tides of revolution in the modern capitals; we will sing of the vibrant nightly fervor of arsenals and shipyards blazing with violent electric moons; greedy railway stations that devour smoke-plumed serpents; factories hung on clouds by the crooked lines of their smoke; bridges that stride the rivers like giant gymnasts, flashing in the sun with a glitter of knives; adventurous steamers that sniff the horizon; deep-chested locomotives whose wheels paw the tracks like the hooves of enormous steel horses bridled by tubing; and the sleek flight of planes whose propellers chatter in the wind like banners and seem to cheer like an enthusiastic crowd.

**Luigi Russolo**
(1913) “The Art of Noises” booklet:
Ancient life was all silence. In the nineteenth century, with the invention of the machine, Noise was born. Today, Noise triumphs and reigns supreme over the sensibility of men. For many centuries life went by in silence, or at most in muted tones. The strongest noises which interrupted this silence were not intense or prolonged or varied. If we overlook such exceptional movements as earthquakes, hurricanes, storms, avalanches and waterfalls, nature is silent...

Every manifestation of our life is accompanied by noise. The noise, therefore, is familiar to our ear, and has the power to conjure up life itself. Sound, alien to our life, always musical and a thing unto itself, an occasional but unnecessary element, has become to our ears what an overfamiliar face is to our eyes. Noise, however, reaching us in a confused and irregular way from the irregular confusion of our life, never entirely reveals itself to us, and keeps innumerable surprises in reserve. We are therefore certain that by selecting, coordinating and dominating all noises we will enrich men with a new and unexpected sensual pleasure.

(1913–20s) Public performances of ‘The Art of Noises’ featuring *Intonarumori* noise instruments (hand-cranked to produce rattling and scraping sounds), destroyed in World War II.

**The Great War**
(1914–1918) First time mechanized warfare used on a mass scale (including chemical agents); greatly accelerates technological advances but at the cost of over 10 million lives. Abysmal conditions in the trenches and on the battlefields leave millions more scarred physically and emotionally; directly leading to the rise of Soviet-style communism and German National Socialism (Nazism); while also leaving a legacy of nihilistic art movements such as dada and surrealism, as well as utopian movements such as Russian constructivism and Dutch De Stijl.
Edgard Varèse [1.0]
French composer inspired by Busoni’s “Sketch of a New Aesthetic of Music” begins thinking about his own desire to transcend traditional thinking; in 1915 emigrates to NYC and all early compositions are lost.

(1917) Quoted in 391 periodical:
*long for instruments obedient to my thought and whim, with their contribution of a whole new world of unsuspected sounds, which will lend themselves to the exigencies of my inner rhythm.*

(1923) Hyperprism
One of the earliest compositions written solely for percussion; created riot in New York audience.

(1929–31) Ionisation
Best-known composition for percussion; also used two variable-tone sirens.

(1930) “The Liberation of Sound” manifesto; from a round table discussion in Paris:

*The raw material of music is sound. That is what the ‘reverent approach’ has made people forget—even composers. Today when science is equipped to help the composer realize what was never before possible—all that Beethoven dreamed, all that Berlioz gropingly imagined possible—the composer continues to be obsessed by traditions which are nothing but the limitations oh his predecessors. Composers like anyone else today are delighted to use the many gadgets continually put on the market for our daily comfort. But when they hear sounds that no violins, wind instruments, or percussion of the orchestra can produce, it does not occur to them to demand those sounds for science. Yet science is even now equipped to give them everything they may require.*

And there are the advantages I anticipate from such a machine: liberation from the arbitrary paralyzing tempered system; the possibility of obtaining any number of cycles or, if still desired, subdivisions of the octave, and consequently the formation of any desired scale; unsuspected range in low and high registers; new harmonic splendors obtainable from the use of subharmonic combinations now impossible; the possibility of obtaining any differential of timbre, of sound-combinations, and new dynamics far beyond the present human-powered orchestra; a sense of sound projection in space by the emission of sound in any part or in many parts of the hall as may be required by the score; cross rhythms unrelated to each other, treated simultaneously, or to use the old word, “contrapuntally,” since the machine would be able to beat any number of desired notes, any subdivision of them, omission or fraction of them—all these in a given unit of measure of time which is humanly impossible to attain.

(1927–1940s) Engages in numerous failed attempts to fund development of practical electronic instruments; all but stops composing; strongly considers suicide.
The Theremin
In 1917, Leon Theremin (born Lev Sergeivitch Termen in Russia), invents one of the earliest electronic instruments. The theremin, as it is later to be called, is controlled by waving the hands delicately over two antennae. Despite the difficult requirements for playing the instrument (perfect pitch and incredibly subtle hand gestures), it quickly becomes the electronic instrument of choice throughout the 20s, and is used in a number of orchestral works. Clara Rockmore becomes the premier virtuosa, and tours the world extensively.

By the 40s, however, its rather harsh timbre, as well as the scarce number of virtuoso players, relegate the theremin to film soundtracks such as the psychological thrillers Spellbound (1945) and The Lost Weekend (1945). By the 50s it becomes popular in science-fiction soundtracks, where such films as The Day the Earth Stood Still (1953) and It Came from Outer Space (1953) are among the first to link science-fiction with spooky, electronic sounds.

Even today, the theremin remains a ‘novelty instrument,’ despite being revived numerous times by such artists as The Beach Boys (whose hit “Good Vibrations” is graced by a whirring, keyboard version of the instrument), Led Zeppelin, and later groups such as Meat Beat Manifesto.

The Ondes Martenot
Maurice Martenot contributes his own theremin-style instrument in 1928, utilizing a standard keyboard and adding ways to change the character of the sounds. Composers such as Edgard Varèse and Olivier Messiaen immediately take to the instrument, which is far easier to use than the theremin, thereby ensuring its survival as an occasional orchestral instrument to the present day.

The Bauhaus
(1921–29) Oskar Schlemmer and Lászlo Moholy-Nagy describe theories of abstract dance and theater (bodies functioning like geometric, machine-like elements in space); experimental music is considered but not developed.

(1929–30) Paul Hindemith & Ernst Toch conduct experiments with variable-speed turntables; trigger explorations by several Bauhaus members (but soon abandoned).
John Cage

John Cage

I BELIEVE THAT THE USE OF NOISE

Wherever we are, what we hear is mostly noise. When we ignore it, it disturbs us. When we listen to it, we find it fascinating. The sound of a truck at 50 m.p.h. Static between the stations. Rain. We want to capture and control these sounds, to use them, not as sound effects, but as musical instruments. Every film studio has a library of “sound effects” recorded on film. With a film phonograph it is now possible to control the amplitude and frequency of any one of these sounds and to give to it rhythms within or beyond the reach of anyone’s imagination. Given four film phonographs, we can compose and perform a quartet for explosive motor, wind, heartbeat, and landslide.

TO MAKE MUSIC

If this word, music, is sacred and reserved for eighteenth- and nineteenth-century instruments, we can substitute a more meaningful term: organization of sound.

WILL CONTINUE AND INCREASE UNTIL WE REACH A MUSIC PRODUCED THROUGH THE AID OF ELECTRICAL INSTRUMENTS

...

(1939) Imaginary Landscape No. 1
Composed for muted piano, gong, two variable-speed turntables playing electronic test tones; credited as first electronic music composition.

(1940) Creates prepared piano as alternative to percussion ensemble; presages similar conceptual approach to sampling keyboards by over 40 years.

(1950s) Begins introducing chance elements into his compositions; utilizing the I-Ching to determine compositional structure. Composes 4'33" (1952), a so-called “silent piece,” to call attention to fact that all sounds (even audience noise) can be seen as music. Also creates Williams Mix, an early electronic tape collage; later composes similar Fontana Mix using transparent score sheets that could be moved randomly.

(1960s)
Cage and frequent collaborator David Tudor create numerous live electronic works for choreographer Merce Cunningham, including Cartridge Music (1960), Variations V (1966), and Tudor’s own Rainforest (1968). Cage also revives interest in the music of Erik Satie by staging first performance of Vexations (1893), a simple piano phrase that is meant to be repeated 840 times. The performance lasts about 18 hours.
**Musique Concrète**

**Pierre Schaeffer**
(1948) *Concert de bruits (Concert of Noises)* broadcast over Radiodiffusion Télévision Française (RTF) in Paris; first musique concrète ever heard.

*Etude aux chemins de fer (Railroad Study)* composed on turntable lathes (cutters) from preexisting recordings of rail yards; marks first time that music is made purely from prerecorded sources, turning usual model of composition on its head.

(1950) *Symphonie pour un homme seul (Symphony for a Man Alone)*
Collaboration with **Pierre Henry**

(1967) Excerpt from *La Musique Concrète*:
We have learned to link the lute with the Middle Ages, plainchant with the monastery, the tom-tom with the savage, the viola da gamba with the dress of the royal court. How could we not expect that a music of the twentieth century, of machines and of the masses, would be linked with electronics and calculators?

(1987) Interview, excerpted from Recommended Records Quarterly Magazine:
...so these were the three circumstances that compelled me to experiment in music: I was involved in music; I was working with turntables (then with tape-recorders); I was horrified by modern 12-tone music. I said to myself, ‘Maybe I can find something different... maybe salvation, liberation, is possible.’ Seeing that no-one knew what to do anymore with DoReMi, maybe we had to look outside that... Unfortunately it took me forty years to conclude that nothing is possible outside DoReMi... In other words, I wasted my life.

**Pierre Henry**
(1962) *Le Voyage (The Voyage)*
A brilliant piece of musique concrète based on the Tibetan Book fo the Dead.

(1967) *Messe pour le temps présent (Mass for the Present Day)*
Composed with **Michel Colombier** for ballet by Maurice Béjart; early example of combining electronic sounds with popular music (in this case, 60s psychedelic rock); later remixed by electronic artists (1997) as testament to Henry’s contribution to electronic music.

**US Innovators**
The need for collaborative space to experiment with electronic tape music brings **Vladimir Ussachevsky**, **Otto Leuning**, and **Milton Babbitt** together in the mid 50s to form the **Columbia-Princeton Center for Electronic Music** in NYC, a nexus for electronic music composition in the US for many years. Due to influence of Babbitt, most of the music is heavily informed by the 12-tone compositional approach called **serialism** (which had been begun by the reluctant revolutionary, **Arnold Schönberg**, in Vienna, around 1910). Composers such as **Morton Subotnick**, **Pril Smiley**, **Mario Davidovsky**, **Alice Shields**, and **Wendy Carlos** also emerge from the center.
Leaps & Bounds: The First Electronic Age

Edgard Varèse
(1954) *Déserts*
At the age of 71, Varèse finally has the tools he needs to realize his work; yet this piece—combining instrumental sections with electronic/tape sections—is received with some hostility.

(1958) *Poème électronique*
One of the most important electronic music compositions ever made is created on a multi-channel tape for over 400 loudspeakers, placed inside hyperbolic Philips Pavilion (designed by Le Corbusier and Iannis Xenakis) at 1958 World’s Fair. The exhibit is visited by over two million people and is later touted as the world’s first true ‘multi-media installation.’

Iannis Xenakis
Greek resistance fighter-turned-architect-turned-composer is among the first to utilize complex mathematical and algorithmic operations in his music. He is also among the first to visualize possibilities of digital/computer-processed music.

(1958) *Concrète P-H*
*Musique concrète* prelude piece for Philips Pavilion is made up of small granules of sound taken from a recording of smoldering coal.

(1959–60) *Orient-Occident III*
Important work dealing with ‘mass structures’; cloudlike formations of sound that are the sonic equivalent of chaos theory.

Louis & Bebe Barron
Experimental electronic music couple; begin working with homemade electronics in late 40s; work with Anaïs Nin, John Cage (on *Williams Mix*, 1952), others.

(1956) *Forbidden Planet*
Unique science-fiction adaptation of Shakespeare’s *The Tempest* serves as opportunity to create first all-electronic film score; continuing association between electronic music and sci-fi. The Barron’s system utilizes self-destructing circuits arranged like human nervous system, resulting in sounds that are surprisingly organic. In the film, their work is billed as ‘sonic artistry’ (not music) to avoid wrath of music unions.

Electronic Music Centers
Often based at universities or radio stations; which are among the few places where electronic music can be realized:
- Columbia-Princeton Electronic Music Center
- University of Illinois
- University of Toronto
- Cologne radio (see Herbert Eimert, and especially the brilliant Karlheinz Stockhausen, whose vast body of work incorporates serialism, hybrids between tape and pure electronic music, radical presentational techniques, improvisation, and much more)
- Radiodiffusion Télévision Française
Robert Moog
(1964) Moog modular keyboard
Miniaturization of transistor technology allows for
development of more affordable, portable instruments.
The first one sold is to choreographer Alwin Nikolai,
who uses it in a number of dance pieces. Soon Moog
keyboard (along with less ubiquitous Buchla system
devised almost simultaneously by Donald Buchla)
开工 making appearances in commercials and popular
music, starting whole craze of 'switched-on' classical
and pop music that lasts well into 1970s, as well as
longer-lasting psychedelic and 'space' rock movement.

Novelty Electronic Music
(1968–ca.1975)
Often preoccupied with ‘humanizing’ electronic sounds.
Switched-On Bach (1968), featuring arrangements of
Bach performed on the Moog by Walter (now Wendy)
Carlos, prompts ‘switched-on’ craze and becomes the
highest-selling classical album until recently. Meanwhile,
Japanese arranger Isao Tomita brings out the sensual
qualities of Debussy and Ravel (among others)
by creating his own, densely layered electronic
arrangements.

Electronic arrangements of bubblegum pop music (some
brilliant, some forgettable) also become ever-present; see
work of Jean Jacques Perrey, Gershon Kingsley, Walter Sear, Bruce Haack.

Krautrock/Space Rock
(ca. 1968–1978)
Rough category of mostly European (and mostly
German) music influenced by Terry Riley's In C and
desire to break from rampant U.S. pop music;
encumbering everything from the repetitive rock jams
of Can, Faust, and Amon Düül II; the electronic
noodlings of Tangerine Dream, early Kraftwerk,
Neu! and Cluster; the psychedelic immersions of Pink
Floyd; and the synth-heavy planetarium music of Jean
Michel Jarre and Vangelis; all of whom heavily
influence artists all over the globe, from David Bowie
and the New Wave music of the 70s, to Stereolab
and the ‘post-rock’ of the 90s.

Kraftwerk
The singular influence on New Wave, techno-pop, and
nearly every form of electronic dance music. Based in
Düsseldorf, Germany, Kraftwerk attempted nothing less
than to create an international electronic ‘volksmuzik,’
beginning with experimental albums in the early 70s
and continuing with their epic highway lullaby, Autobahn
(1974), and increasingly fetishistic concept albums such as
Trans-Europe Express (1977), The Man-Machine
(1978), and Computer World (1981). They are later to
reemerge in the 90s as the undisputed godfathers of
the techno/electronica scene.
Minimalist Classical Music
Following template provided by Cage and Morton Feldman in the 50s, early 60s composers such as La Monte Young, Tony Conrad, John Cale, and Terry Riley begin to experiment with simple compositions of extremely long duration; concurrent with rise of minimalist sculpture, Fluxus, and ‘happenings.’ Better known names such as Steve Reich, Philip Glass, and John Adams also become associated with the minimalist movement, as well as singer-composer-chorographer Meredith Monk, whose unique work combines elements of dance, theater, music, and installation art. Reich also pioneers use of ‘phasing’—playing two recordings at the same time, at slightly different speeds—inspiring later experiments in electronic music.

Environmental/Meditation Music
Improvements in field recording techniques result in release of sound environment records meant for meditation and relaxation. Thus the first ‘ambient music’ is born, working hand-in-hand with popular interest in Eastern spirituality, yoga, and other somatic and therapeutic techniques.

Brian Eno
The former experimental keyboardist for glam-rock supergroup Roxy Music, also dabbles in environmental music, popularizing notion of ‘ambient music’ with series of beautifully low-key releases such as Discreet Music (1975) and Ambient 1: Music for Airports (1978). After launching this movement, Eno goes on to produce seminal albums for David Bowie, Talking Heads, U2, and many others; utilizing many experimental and chance approaches to composition and sound construction.

New Age
While the 70s sees rise of Krautrock, progressive rock, and space rock (among others); most of these lose momentum with advent of disco, punk, heavy metal, and New Wave. By late 70s, ‘new age’ carries the torch for the concept of ‘music as therapy.’ Stephen Halpern releases series of records with healing specifically in mind, while the prolific label Windham Hill releases moody instrumental music by such artists as William Ackerman and George Winston.

Ambient house, ‘Intelligent Dance Music’
By late 80s, Eno-inspired work begins to infiltrate dance music, spurring the short-lived genre ‘ambient house,’ exemplified by the cynical sample-thievery of The KLF and the tripped-out soundscapes of The Orb. By the early 90s, like-minded acts such as Aphex Twin, The Black Dog, Autechre, Global Communications, and Kirk Degiorgio begin to incorporate more obvious references to Detroit techno and New York electro, while adding their own quirky touches of musicality. This new ‘armchair’ techno is christened ‘Intelligent Dance Music’ to distance it from the burgeoning rave scene.
The influence of dub is felt second-hand in the NYC hip-hop scene of mid 70s, but has a more direct effect on large West Indian population of the UK, while triggering post-punk experiments by the likes of Public Image Ltd. (fronted by ex-Sex Pistol John Lydon), techno-tribalists 23 Skidoo, and industrial-dub producer Adrian Sherwood (with his On-U label).

Dub is also later revived through the 90s work of Massive Attack, and is rightly cited as an essential influence on drum’n’bass. At the same time, it provides the impetus for rise of ‘trip-hop’; and is reinterpreted heavily by the axis surrounding Germany’s techno artists Basic Channel (including Pole).

By the later 70s, disco is seen by many (especially in rock, funk, and emerging hip-hop communities) as watered down, disposable music; by 1980, the bubble bursts. Disco, however, soon becomes house music.

Hip-Hop (The Unrecorded Years)
(ca. 1974–1980)

 Begins with block parties in the South Bronx (NYC) in the early 1970s, including ‘soundclashes’ promoted by the Jamaican-born Kool Herc; soon an entire culture of DJing, MCing, breakdancing, and graffiti emerges, lead by DJs such as Grandmaster Flash, Afrika Bambaataa, and Grand Wizard Theodore.

During this time, the term ‘breakbeat’ arises; describing the process of playing only the short, instrumental breakdowns of obscure soul, funk, and miscellaneous other records (especially those of James Brown). Later, these snippets form backbone of recorded hip-hop, as well as drum’n’bass and trip-hop in the 90s.
The Punk/Electronic Connection

**New Wave/Post-Punk/Technopop/Darkwave**
(ca. 1978–1983)

New Wave provides a more radio-friendly alternative to the brevity and abrasiveness of punk music. **David Bowie** again provides impetus (as he did with punk), this time with the ‘Berlin trilogy’ of *Low*, “Heroes,” and *Lodger*. But it is **Gary Numan** who runs with the idea, pushing his ‘synthetic funk’ to the masses. Meanwhile, other UK acts such as **Public Image Ltd.**, **Siouxsie and the Banshees**, **NYC’s Suicide**, and San Francisco’s **Chrome** take a different perspective on ‘post-punk,’ offering a far more dissonant kind of music than punk itself ever was.

Another derivation comes from the camp of post-punkers **Wire**, whose members **Bruce Gilbert** and **Colin Newman** begin experiments in ambient electronics. By the 90s, Gilbert is heavily involved in the UK’s techno scene himself. Meanwhile, techno-pop groups such as **Yellow Magic Orchestra**, **Orchestral Manoeuvres in the Dark**, **New Order**, **Fad Gadget**, and **Depeche Mode** pick up where Kraftwerk left off, even as the ‘new romantic’ movement (**Japan**, **Duran Duran**, **Talk Talk**, **Ultravox**, **Visage**) starts to swing.

A fringe of harsher disco/punk/funk bands hover on the periphery as well, including UK groups **A Certain Ratio**, **Section 25**, **Clock DVA**, and **23 Skidoo**, along with NYC groups like **Liquid Liquid** and **ESG**; while even darker, moodier bands such as **Sisters of Mercy**, **Clan of Xymox**, **Cindytalk**, **Swans**, and **Death in June** offer sinister possibilities.

**Industrial**
(ca. 1983–present)

The proper term ‘industrial’ is the province of the UK’s **Throbbing Gristle**, whose previous incarnation as shock artists **COUM Transmissions** helps earn them the title of ‘the wreckers of civilization’ in the mid 70s. Their releases combine gruesome images with extreme electronic sounds. Along these lines, Sheffield’s **Cabaret Voltaire** (whose name is taken from the Zürich café that spawned *dada*) also explore extreme electronic dissonances with a penchant for bass-driven rhythms. Berlin’s blistering **Einstürzende Neubauten** and the UK’s equivalent, **Test Dept**, use their own home-made instruments and power tools to destroy stages across Europe.

By the mid 80s, few groups are willing to go to such extremes. One exception, Vancouver-based **Skinny Puppy**, finds itself constantly harassed for its portrayals of animal vivisections and other miscellaneous gore. By the late 80s, the term ‘industrial’ in the US mistakenly applies to what is known in Europe as ‘electronic body music’ (exemplified by **D.A.F.**, **Front 242**, and **Nitzer Ebb**). Soon, electronics-laden rock groups like **Ministry** and **Nine Inch Nails** are considered ‘industrial,’ despite their lack of destructive accoutrements. By the late 90s, some trance-influenced groups (such as Norway’s prolific **Apoptygma Berzerk**) also fall under the ‘industrial’ moniker.
The Dance Music Continuum (Pt.2)

**Electro**  
Emerges in New York City out of a cross-fertilization between hip-hop culture with *Kraftwerk*, video game music, ‘electric funk’ (such as *Parliament*), and ‘eurodisco’ (such as Belgian exports *Klein & MBO*, and *Telex*). Thanks to the huge success of 1983’s “Planet Rock” by Afrika Bambaataa and Arthur Baker, the genre is soon characterized by its ‘synthetic’ feel and staccato, syncopated rhythms, making it ideal for breakdancing.

Electro undergoes a massive revival in mid 90s with Detroit’s *Underground Resistance*, Drexciya, Aux 88, DJ Assault, and Ectomorph; as well as European artists (drawing from their own Kraftwerkian heritage) such as Germany’s DJ Hell, Anthony Rother, and Ellen Allien; Austria’s I-F; and the UK label Warp, with artists LFO, Autechre, and Andrea Parker.

**Techno**  
(ca. 1983–present)  
Although techno arguably begins with European ‘electronic body music’ of early 80s artists such as Germany’s D.A.F. and Belgium’s Front 242, along with New Wave and ‘euro disco,’ it is only truly brought to light by the brilliant futuristic releases of Detroit’s Juan Atkins (aka Model 500) and later, Detroiter Derrick May, Kevin Saunderson, Eddie Fowlkes, Jeff Mills, and Carl Craig; along with New Yorkers Frankie Bones, Tommy Musto, and Lenny Dee.

By the late 80s, techno (along with Chicago/NY house) crosses the ocean to the UK and Europe, hybridizing with local influences (including Manchester’s infamous Factory club, The Hacienda, subject of the recent film, 24 Hour Party People) to produce new splinter genres that quickly become difficult to differentiate (such as ‘collage house,’ ‘acid house,’ ‘ambient house,’ ‘Intelligent Dance Music,’ ‘trance,’ ‘tribal,’ ‘hardcore,’ and many others).

Detroit techno itself undergoes a kind of split in the early 90s, between the Windsor, Canada-based label *Plus 8* (home of Plastikman), and hometown label and political collective *Underground Resistance*. Both have lasting impacts on the European techno scene, notably Berlin’s Tresor label.

**House**  
(ca. 1983–present)  
By the early 80s, disco goes underground, becoming more electronic. Frankie Knuckles, a New York DJ transplanted to Chicago, becomes resident at The Warehouse, giving ‘house music’ its name. Meanwhile, NYC DJs such as Larry Levan and labels such as Salsoul, West End, and Prelude develop their own style of house, as labels Trax and DJ International consolidate a gospel and soul-inspired Chicago sound. Trax also pushes the squelchy ‘acid’ sound discovered accidentally by a group named Phuture; soon ‘acid’ takes off to the UK, where it almost single-handedly spawns the massive European rave scene.
Hardcore
(ca. 1991–present)
Takes rawest side of ‘acid’ and techno sound (including Belgian ‘new beat’ and some of UR’s harder material) and pushes it to the furthest extremes of noise and speed. Frankfurt’s Planet Core Productions label and The Netherlands’ Rotterdam Records promote the sound in Europe, while Lenny Dee’s Industrial Strength label in NYC does it stateside (triggering the growth of the hardcore scene in Chicago, featuring DJ Delta 9, and the entire Milwaukee scene, represented by Drop Bass Network).

The mid 90s free festival scene represents the culmination of underground techno events in Europe, birthing such notable hardcore techno collectives as Spiral Tribe and Network 23. But as each country slowly latches down on party-goers, the scene is forced to retreat, and only just survives in France, where the hardcore scene delivers hard-hitting political critiques of the status quo through its devastating music.

Drum’n’Bass
(ca. 1991–present)
Begins as extension of sample-based ‘collage house’ but quickly specializes in the creative use of breakbeats, inspired by dub music as well as UK artists such as Meat Beat Manifesto and US hip-hop artists Public Enemy.

By early 90s, UK labels Shut Up and Dance and Reinforced innovate new ways to cut up breakbeats. Later joined by Suburban Base, Formation, and V Recordings labels, the genre evolves and speeds up at a manic pace, going through no less than six permutations in three years (including ‘darkside,’ ‘ragga,’ ‘jazzy,’ ‘intelligent,’ ‘jump-up,’ and ‘tech-step’).

Darker aspects of drum’n’bass eventually coalesce into micro-detailed ‘tech-step’ (see Ed Rush, Optical) and raucous, hardcore-inspired ‘breakcore’; lighter sides eventually lead to a divergence from drum’n’bass altogether, back towards dance-friendly forms such as ‘speed garage,’ ‘two step’ (see Armand Van Helden), and even ‘big beat’ (see Fatboy Slim, Chemical Brothers).

90s Ambient
(1990–present)
Ambient music continues to be explored by a number of artists in various modes, from the ‘dark ambient’ of the Projekt label; to the ‘illbient’ of DJ Spooky; to the CD-skips of Germany’s Oval; and a whole host of electro-experimentalists on the Mille Plateaux label. Various ‘post-rock’ outfits explore a territory beyond rock and closer to jazz or soundtrack music; such as Chicago pioneers Tortoise and Gastr del Sol, Michigan’s hazy Labradford, Scotland’s brash Mogwai, Montreal’s enigmatic godspeed you black emperor!, and Iceland’s dirge masters Sigur Rós. Even longtime acts such as Radiohead and Sonic Youth become more understandable in this context.
A Few Recent Trends: Noise & Extreme Beats

Noise
‘Noise music’ is spurred by industrial groups such as Neubauten; spawning ear-blistering experiments by the likes of Non, Whitehouse, Merzbow, The Boredoms, and Emil Beaulieu throughout the 80s. By the late 90s, laptop computers make ‘digital noise’ music possible, with new software allowing for more extreme (and ‘real-time’) tweaking. Pita and Christian Fennesz, both from the Vienna-based label Mego, are among the first recognized laptop noise artists. Other directions include the absolute mathematical precision of Japan’s Ryoji Ikeda and Spain’s Francisco López, the ultra-political field recordings of LA’s Ultra-Red, and the rock-based noises of Japan’s Melt Banana and Detroit’s Wolf Eyes.

Breakcore
Emerging from remnants of hardcore techno scene in France, Germany, UK (and later the US), artists such as Christoph Fringeli (Praxis), Hecate, and DJ Scud (Ambush) begin to apply the hardcore approach to drum’n’bass, cutting up and obliterating breakbeats beyond recognition. Austria’s Eiterherd (Widerstand), France’s Rotator (Peace-Off), Winnipeg’s Venetian Snares, and Minneapolis’ Bombardier are also among those instrumental in the development of the sound. San Francisco’s Kid 606 and his Tigerbeat 6 label, though closely related, cover slightly quirkier ground, while Berlin-based Atari Teenage Riot (Digital Hardcore) is seen as the commercial equivalent, albeit somewhat removed from the underground DJ culture.

‘Power Noise’
Also parallels closely to hardcore techno scene, with a stronger emphasis on techno/electro styled sounds. German label Hymen leads the way, with artists such as the Welsh duo Somatic Responses, Seattle-based Converter, and France’s Celluloïd Mata all on the roster. Other representatives of this genre include Texans Proem and L’Usine, and the Finnish noise merchants Pan Sonic, whose stripped-down music of the mid 90s triggers much of what has come.

‘Glitch Electro’ / ‘Glitch-Hop’
While closely related to ‘power noise,’ ‘glitch electro’ owes more to IDM and dance music than its industrial antecedents. Having absorbed the lessons of pioneers such as Autechre and Aphex Twin, other artists and labels have taken up where their early work left off. Add to this the element of hip-hop and the result is a strange fragmentation of the hip-hop and electro aesthetic.

Among the most prominent US representatives of the hybrid are Atlanta-bred Richard Devine and Scott Herren (aka Prefuse 73), Michigan-based label Ghostly International, and Miami labels Schematic and Beta Bodega Coalition. Meanwhile, UK labels such as Warp (and sublabel Lex), Skam, and artists such as Plaid, LFO, Jega, and Bola, as well as German artists Arovane and Funkstörung, are also very much in the mix.
A Few Recent Trends: Groove Music

‘Glitch House’/‘Glitch Techno’/‘Micro House’
A broad, technical approach to house and techno music, connected to laptop and IDM culture, as well as more dance-friendly styles. Encompasses everything from the hiccuping grooves of San Francisco artists Kit Clayton, Sutekh, Safety Scissors, and sample-pranksters Matmos; the bleep-house of Columbus, Ohio-bred artists Geoff White, Todd Sines, and tribalist Archetype; the pop music clips of Montreal’s Akufen; and the lumbering, on-the-fly sampling techniques of the UK’s Matthew Herbert.

Closely paralleled by movements in German minimal techno, particularly Cologne’s Thomas Brinkmann, Wolfgang Voigt (aka Mike Ink) and the Kompakt label, as well as Frankfurt’s own labels Perlon, Playhouse, Mille Plateaux, and Force Inc.

‘Dub Techno’
Describes a sound influenced by 70s dub from Jamaica as well as 80s techno from Detroit, filtered through the early 90s by the enigmatic Berlin duo known as Basic Channel. The two also oversee the burgeoning techno scene represented by the Chain Reaction label and eminent dub-techno artists such as Porter Ricks, Monolake, and Pole. While many artists eventually step out from under the Basic Channel umbrella, the influence of their wet, dubby sound (and the mastering plant they establish, called D&M) still permeates the work of techno artists across the board.

‘Broken Beat’/‘West London’ Breakbeat
New movement combining the complex beat syncopations of electro and house with the textures of 70s funk-jazz (see Roy Ayers, Donald Byrd, Sun Ra, plus Fela Kuti and other afro-funk artists). Centered primarily in the former drum’n’bass scene of West (and North) London, it also includes numerous producers of jazz, hip-hop, and house. In London, the most prominent artists are 4 Hero’s Dego McFarlane and Mark Clair, former Reinforced stalwart Seiji, as well as Bugz In The Attic, Domu, and IG Culture. The sound is not defined by geography, however—as Philadelphia’s King Britt, Germany’s Jazzanova, Toronto’s Moonstarr, and Columbus’ Titonton Duvanté are also among the worldwide purveyors of this open-ended sound.

Revivals and New Innovations
Munich’s DJ Hell (overseeing the labels Disko B and International Deejay Gigolos) heralds the electro-pop and synth-disco revivals of the early 2000s, dubiously dubbed ‘electroclash,’ with artists such as Adult., DJ Assault, Le Tigre, Peaches, Ladytron, Felix da Housecat, Gold Chains, Chicks on Speed, and Fischerspooner bringing back the fun, spectacle, and fashion—1980s style. At the same time, others such as Telefon Tel Aviv, Four Tet, Burnt Friedman, Midwest Product, and Andrew Pekler delve into as-yet-uncategorized hybrids between live and electronic music.