This chapter profiles pieces that seem to change their surrounding environments and, especially, our own bodies. They are powerful, exerting their will to alter the way we listen. Their long durations and loud volumes test our limits of concentration and, in some cases, our tolerance for pain. These pieces confine their materials to drones, noises, and repetitive rhythmic patterns and often studiously avoid any other types of sounds that might distract from these elements. The three subgenres that I call maximal music—drones, dub techno, and noise music—are distinct practices, and I do not mean to collapse them, but one aspect they all share is a quality of excess, something appreciable only after long stretches of time. Therefore, this discussion will entail an investigation of what perceived long durations and stasis do to the listening process. (I say "perceived" because there is nothing inherently static or timeless in music; sound waves are by definition in motion and proceed along the space-time continuum just like any other phenomenon.) Maximal music generally avoids development according to the conventions of nonelectronic Western art music, yet it also avoids the sort of nondevelopmental variation and contrast that occur in other types of experimental electronic music such as microsound and soundscape. Most of the pieces in this chapter are classified as minimalist, but as chapter 3 explains, the category of minimalism refers to too many types of music to be of much use. Whereas the pieces in chapter 3 aspire to concision and meaninglessness, maximal music posits a space of euphoric or utopian excess. The corporeal effects of maximal music are direct and immediate, and although these sounds can be and are interpreted for their individual meanings, what is more pertinent here is the extent to which they signify general surfeit. Noise, duration, and the purity of a single tone or chord all test our ability to concentrate and perceive the passage of time.

We'll begin with some examples of drone and electronic dance music (EDM) that are static and repetitive. Despite this stasis, however, these works are also dominated by tension between stasis and action, or between limitlessness and constriction. Maximal music is appreciable as maximal only in the presence of boundaries, when we know that the music will at some point come to an end. In the second half of the chapter, we'll revisit conceptualizations of the sublime by Kant, Adorno, and Bataille while considering how the sublime in maximal music leads to "negative beauty." The maximal dimensions of much electronic music—its long durations, seeming avoidance of change, and noise—ultimately reinforce traditional notions of beauty and form. Drones and dub techno might seem static compared with music whose materials are constantly evolving, but the scarcity of materials in these genres ensures that even subtle changes assume great significance. Likewise, while Attali (1985), Hegarty (2007), and Kahn (1999) interpret noise as political or social critique, inherent in this critique is the regret that noise is unacceptable. As beauty's opposite, noise reinforces the ideal of beauty. We'll close by asking why so much electronic music, and in particular so much maximal music, is, for lack of a better word, beautiful. Why, in the midst of a vigorous avant-garde tradition, does maximal music rely on tonality and consonance?

STASIS

We tend to think of stasis in music as the opposite of teleology. Static music goes nowhere, achieves no goals, does no work, and sounds the same three hours into the work as it did when the work began. These truisms have explained what distinguishes Western art-music warhorses from non-Western music as well as the post-1945 avant-garde. But it is not enough to rest here, for the simple reason that so much electronic music is nonteleological. The definition of static music does not need to remain a negative one in the sense that it only describes an absence or failure. Static music is not only music that avoids conventional harmonic or melodic goals but also music that takes specific steps to obscure any sense of the passage of time. We can hear these aspects of stasis in drone music and dub techno, two subgenres that clearly differ from each other in terms of presence or absence of pulse yet share important affinities in terms of how they manipulate sound and silence.

It is exceptionally difficult to write about drone music. I say this as a person who likes a lot of it, so I lack the prejudices often seen in print about drone music being "boring" or "like listening to a dentist's drill." Technical descriptions of drones take only a few words to state that one tone or chord lasts minutes or hours, leading to a rather sizable imbalance between the minimal number of words required to describe a drone and the maximal amount of time a drone takes. We also lack specific terminology for conveying exactly what goes on during a drone. "Sustained" and "held for a long time" are practically our only means of communicating what drones do, even though drone activity is often more complicated than these descriptions let on. Another approach would be to reflect on the ways in which drones affect the listening process. Drones impose a kind of sensory deprivation through effacing the variation we take for granted, the ebb and flow of acoustic data that occur not only in music but in daily life as well. Like other types of sensory deprivation, drones eventually sharpen other modes of perception by refocusing the listener's attention on the subtle fluctuations in timbre or pitch that accrue greater importance against an otherwise static background.

One of the more remarkable aspects of drone music is its surprising variety, both within individual works and among works across the subgenre.

Despite this variety, there is little written about drone music outside of ethnomusicology, and ethnomusicologists tend to discuss only specific case studies of drones rather than attempting cross-cultural comparisons (Kaeppler 1994). The work that has been done on drones in art or popular music centers almost exclusively on La Monte Young, and much of that work concentrates on tuning systems (Gann 1996). Apart from Young's work, however, drone music seems to be studiously avoided. The work of Éliane Radigue quickly puts to rest suspicions that all drones sound like Young's. Radigue is a French electronic-music composer who studied with Schaeffer and Pierre Henry in the 1950s before trading musique concrète for a musical language resembling that of Terry Riley. Radigue had long been interested in combinations of drones with improvised melodies. But her conversion to Tibetan Buddhism in the 1970s exerted a deep influence on subsequent compositions, whose stasis and enormous proportions draw on her experience with meditation. Until recently, Radigue has worked exclusively with tape and the ARP 2500 modular synthesizer, and these instruments figure in her massive *Trilogie de la mort* (1998), a three-movement work that Radigue was composing at the time of her son's death in an automobile accident. "Kyema," the first movement of the *Trilogie*, begins with the fading in of two sustained but undulating pitches, a root and its fifth. At around 1:30, a third line enters, a simple melody whose tonic is one octave above the root of the piece. This melody spins out pitches of a major scale, with no particular rhythm, trajectory, or development. This section continues with little variation until around 5:45, when two new sustained tones enter. By 6:45, all other pitches have begun to fade out except for the new low tonic. Like the preceding section, this new one spins out a slowly moving melody an octave above its root, with each line pulsating at a different rate.

I hear eleven discernible sections in all of "Kyema," and almost all of them progress in a manner similar to the two sections described above. Their structure consists predictably of one or more undulating drones paired to a simple melody, with each section fading out as another one fades in. The one exception to this rule takes place in the sixth and seventh sections. The sixth section begins at around 28:00 with a drone. After about a minute, what sounds like a tape sample of an orchestral work enters, a brief, looped fragment lasting only a few seconds. This material is accompanied by what sounds like a recording of wind blowing (or windlike sound effects).[1] This section continues for several minutes like this, only fading into the new seventh section at around 37:20. The seventh section consists of quiet electrical static and intermittent low pulses of a single pitch. It is unclear from my

[1]Gann (1996) states that all sounds on *Trilogie de la mort* are produced by analog synthesizers, but I have been unable to confirm this. In any event, these sounds *seem* like samples and wind effects.

compact-disc recording whether this static sound is intentional or the result of extraneous noise when the work was transferred from analog tape.

What I have just described seems like an eventful piece, and it is, but only if one listens very carefully. There are other ways to hear Radigue's music: the soft roundness of these sounds is pleasing and even lulling. It is easy to fall asleep to this music, although I mean this as a compliment rather than a criticism. Even when listening while fully awake, I often let these sounds wash over me without attending to the relationships among different sections, and I might only barely register that there are any sections at all. The more attentive mode of listening I employed in writing the analysis above may be able to discern specific traits of the piece such as the orchestral and windlike sounds. But all listening experiences, from those that are highly observant to those that lead to sleep, register the two most striking aspects of Radigue's works: their pitting of stillness against movement and their sheer length.

Although nominally a drone work, Jim O'Rourke's *Long Night* (1990) is so different from Radigue's *Trilogie* that I hesitate to refer to the two works by the same generic designation. "Kyema" is sectional and episodic, with a climax of sorts occurring approximately two-thirds of the way through the piece, with the sounds resembling an orchestra and the wind. *Long Night* avoids any hint of increasing tension or climax, maintaining the same glacial pace throughout its longer than two-hour duration. The process driving *Long Night* is simple: the piece begins with one single pitch (played on what I presume is an analog synthesizer) to which other pitches are gradually added. As the piece unfolds, some pitches fade out as others fade in, meaning that the piece effectively modulates from one chord to the next. Fast-forwarding on a compact disc player or an iPod generates a "digest" format in which material lasting longer than two hours is compressed into a recording lasting only a few minutes. Yet fast-forwarding also confirms that these modulations are only ancillary to the listening experience, because they attract much less attention at normal speed. The time between modulations is so great that it becomes difficult to track the progression between adjacent chords, let alone the overall harmonic trajectory of the work. Although O'Rourke occasionally allows some of these pitches to spin out into tiny melodies as Radigue does, the importance of these melodies seems secondary. These noodles are not improvisatory riffs like those in Terry Riley's music, attracting notice on the basis of their status as melody. They play at a modest volume and function as filigree rather than as the main attraction.

Phill Niblock's drones are distinct from both Radigue's or O'Rourke's. In his "Harm" (2006), the drone consists of a single note played on the cello (▲ audio example 8: Niblock's "Harm"). In fact, this is not a single note but

rather one pitch that is subjected to slight microtonal manipulation such that in the resulting recording, there are several pitches chafing against one another in a tone cluster. In the liner notes to *Touch Three*, the album on which "Harm" appears, Niblock states that all sounds were produced by acoustic instruments and microphones; no electronic manipulation occurred. This assertion is somewhat inaccurate given that any recording, and especially one containing microtonal manipulation, depends on electronics. "Harm" is as much an example of electronic music as anything containing synthesized or sampled materials. But Niblock's desire to identify this work as nonelectronic points to an undercurrent among many drone musicians, starting with La Monte Young, that drones are somehow a more primal and universal music because they draw from ancient practices present in musical traditions around the world.

Charlemagne Palestine's drone works are rituals, especially when he performs them live in his customary fashion amid dozens of stuffed animals and the scent of clove cigarettes. A work such as *Schlingen-Blängen* (1979) for organ lasts more than seventy minutes and contains one chord that alters only very slightly and infrequently. What few timbral changes do occur are brought about through the manipulation of organ stops. It may be simply a result of the inherent reedy qualities of the organ, but there is an urgency to this drone work that makes it utterly distinct from works by O'Rourke or Radigue, an energy that suggests not lack of movement but constant, unabated movement.

These four examples of drone music are unarguably distinct in terms of structure as well as means of sound production. The quality they do share is an absence of pulse, which obscures the passage of time in drone music. Articulations, if present at all, occur at wide intervals, such as with the sections or episodes interspersed through Radigue's "Kyema." The lack of pulse in a drone work contributes to the impression that it also lacks trajectory or propulsion, even if the work does contain contrasting materials. So on this basis alone, EDM would seem to run counter to every trait in drone music. EDM contains a constant pulse, and many EDM tracks incrementally add or remove sounds to create anticipation for the next section or the next track. Examples of this technique are too numerous to count, but one well-known case is Manuel Göttsching's proto-techno work, *E2-E4* (1984). Like most techno, *E2-E4* is built on a rhythmic ostinato. Over the course of an hour, synthesized chords and guitar riffing intermittently join and then disappear from this basic rhythmic pattern. The inspiration behind such layering owes a great deal to minimalist works like Steve Reich's *Drumming* or Terry Riley's *In C*, in which the scaffolding of a basic rhythm serves as the foundation for extenuated figuration in higher registers. This compositional approach is teleological and sequential because it marks time with a

procession of drum beats and intersperses mileposts of different musical events along the way.

If left to Göttsching's *E2-E4* and other automaton-like works by Kraftwerk and the Belleville Three (Juan Atkins, Derrick May, and Kevin Saunderson), EDM might have continued chugging along like a well-oiled machine, with dry attacks clicking away with watchlike precision underneath muted synth pads. But EDM underwent a crisis of sorts beginning in the late 1980s and culminating around 1992, as frenetic rave music began to alienate listeners and musicians (Reynolds 1999, 180–195). Subgenres such as chill-out, ambient house, ambient techno, and dub techno fragmented what had already been a disparate collection of house, acid house, and techno. These newest subgenres drew listeners in part because they provided a respite from relentless dancing but also because they fleshed out the sparseness of straight-ahead techno and house. In particular, dub techno replaced EDM's mechanization with a way of muffling the sense of time's passage, despite the persistence of the four-on-the-floor beat. Sound in dub techno appears to linger thanks to processing techniques that make it seem as if a clearly defined pitch or drum attack is traveling through a large space before dissipating several moments later. With this reverberance, dub techno approaches the endlessness of drone music.

To appreciate the shift from the sharpness of early techno to the blurriness of dub techno, let's return to one of the Belleville Three, Juan Atkins. The sound of Atkins's early group Cybotron, particularly on tracks like "Clear" (1990), is metallic, brittle, and robotic, the textbook definition of techno. "Clear" resembles Afrika Bambaataa's "Planet Rock" (1982) with its electro beat, robotic arpeggios, and synthesized melodies. In "Clear," the attacks are crisp, parroting the cybernetic movements it seeks to emulate. Around 1993, however, Atkins changed his sound after starting work in the Basic Channel studios of Berlin with Moritz von Oswald. Oswald and partner Mark Ernestus ran the techno group and recording label Basic Channel, which was gaining prominence for its minimalist dub techno, a pared-down response to Detroit techno with bare-bones percussion and irregular modulating synth chords. If, as Derrick May famously stated (Butler 2006, 42), techno was born when Kraftwerk and George Clinton got stuck in an elevator together, one could say that dub techno appeared when King Tubby or Lee Scratch Perry attempted to rescue the elevator occupants. The dry, precise attacks of first-generation techno are softened with echoes, as if the sounds are traveling through water.

Atkins, who by the mid-1990s was performing as Model 500, recorded several tracks with Oswald as engineer, among which "M69 Starlight" (1995) stands as one of the most highly regarded techno tracks. Like other Model 500 tracks, "M69 Starlight" associates its synthesized sounds with space

flight and science fiction. The track begins with a four-on-the-flour bass-drum pattern to which are added synth-pad syncopations just before the third beat. This rhythm remains steady throughout the work. There is no conventional melody to speak of, so these syncopations function like a melody, because they seem to fit on top of the rhythmic underpinning of the track. But the syncopated material is not melodic, instead consisting of reiterations of the same single pitch whose timbre is varied through modulation. These controlled gestures make "M69 Starlight" an early example of dub techno, "dub" thanks to its thick reverb and modulated synth chords. "M69 Starlight" and other dub-techno tracks scrupulously avoid any sense of trajectory or anticipation.

German electronica artist Wolfgang Voigt's work as Gas has generated some of the most influential ambient techno albums of the past ten years, especially *Gas* (1995), *Zauberberg* (1997), *Königsforst* (1999), and *Pop* (2000). These four albums were rereleased in 2008 as a box set called *Nah und Fern*, an apt title given that these works immerse the listener in a forest of near and distant sounds. A typical Gas work contains a dance beat, although many do not. This beat, however, is not crisply articulated as it would be in most other techno tracks but rather sounds as if it was replayed on failing analog equipment. It lies submerged in a smeared mess of synthesized chord clusters and intermittent figuration, usually only three or four notes. The untitled second track of Gas's eponymous album provides the template: a muted drum track running about 120 beats per minute sits below synthesized, wordless choral singing that repeats a collection of perhaps five or six pitches. The rates of repetition here are not synchronized, so the choral material begins at a new place along the rhythmic pattern each time. What distinguishes Gas from other techno acts is the murkiness of its production. Most techno by definition embraces its technological underpinnings, its reliance on sequencers and synthesizers that emit razor-sharp attacks and clockwork-like rhythms. And most techno also contains a good amount of empty silence into which perfectly chiseled beats fall into regular patterns. Gas rejects this paradigm by using constant, unrelenting walls of sound that bleed into one another, what might have happened if Phil Spector had produced an EDM album. There are no clear timbres or easily audible melodic phrases here, and the monotony of materials combined with their irregular cycling in relation to one another suggests that these tracks simply exist without any development.

Returning to dub techno and Moritz von Oswald, his work with Mark Ernestus as Basic Channel popularized a paradoxical static trajectory in which the only changes are shifts in volume or modulation of synthesized materials. Basic Channel tracks are otherwise totally static, usually recycling the same few figures from start to end of a track. In "Quadrant Dub I" (1995), the track's materials are separated into different strata on the basis of their

perceived distance from the listener. An ambient drone with a slight hiss lurks in the background, while pitched bass-drum attacks, first on the root followed by the fifth, occupy the foreground. A straight 4/4 pitchless drum beat later enters the foreground, followed by some synthesized, syncopated figures with reverb that hide in the background. The use of foreground and background materials, combined with the fact that those materials are quite simple and do not mutate over the course of the track, creates the impression that these sounds have solidified into inert objects promising no future growth or evolution.

Let's take a step back to reconsider these various examples of stasis. My language in discussing drones and dub techno echoes several examples of musical analysis that are perhaps too generous in accepting the perceptions of listeners uncritically. According to Kramer (1981) and Rowell (1987), traditional Western music treats time as a linear phenomenon. Musical works possess clear beginnings and endings and employ tonality and rhythm to create the expectation for organic development, climax, and denouement. As tonality's importance began to wane during the twentieth century, alternative approaches toward the organization of time began to appear, especially those claiming some affinity with non-Western musical traditions. Drones and other types of static music avoid development through repetition of one tone or one set of tones for long periods of time. Listeners and scholars hear in these works an alternative sense of time, what Kramer calls "vertical time," a timelessness in which the work could continue indefinitely without start or finish.

The tendency to pit teleology against timelessness in twentieth-century music studies is deeply ingrained. It has become so commonplace to think of classical music as goal-oriented and minimalist music as circular, immanent, or static that we tend not to give it a second thought. Even Adorno, usually reliably contrarian about clichés, toes the line in diagnosing the aesthetic experience of conventional art, which he argues amounts to awareness not of the essence of materials but of how materials interact with one another over time. He writes, "Analysis is therefore adequate to the work only if it grasps the relation of its elements to each other processually rather than reducing them analytically to purported fundamental elements" (1997, 175). This statement describes how we perceive the artwork, how we believe artworks grow and develop. For Adorno, our perception fixates on the artwork's "becoming" rather than "being"; the distinction refers to whether we see artworks as static, preformed objects or as living beings.

However, Adorno isolates a distinction elsewhere overlooked in discussions of musical time: the difference between aesthetic time and empirical time, or between how we *think* artworks behave over time and how they actually behave:

> Once a text, a painting, a musical composition is fixed, the work is factually existent and merely feigns the becoming—the content—that it encompasses; even the most extreme developmental tensions in aesthetic time are fictive insofar as they are cast in the work in advance; actually, aesthetic time is to a degree indifferent to empirical time, which it neutralizes. (1997, 107)

That is, artworks become objectified the moment they are inscribed onto some medium, so our impression that their elements grow organically to become something else is simply that, an impression or illusion.

I want to infuse Adorno's sensitivity to the empirical time of art into the discourse on trajectory and stasis. When Adorno was writing *Aesthetic Theory*, he had in mind artworks for which stylistic conventions expected, even demanded, organic development. For music, this would entail notation of the work before its performance, as well as the expectation that a performer would adhere to the notation as closely as possible. Adorno's high-modernist favorites, the works of Schoenberg and Webern, contain figures and motives that, for him, seemed to grow and mutate to become something other than what they were at their inception. By contrast, most accounts of drones and dub techno speak in terms of inertia rather than forward motion. Maximal music is thus the counterpart to developmental music: immanent rather than transcendent, finished rather than developmental. But Adorno reminds us to attend to the physical realities of artistic experience, the fact that listening to notated, classical music in effect means listening to an event that has already been determined. Admittedly, different performances of a particular work can vary in terms of how they execute what is written in the score. But this does not change the fact that precomposed (or prerecorded or preplanned) musical materials are finished.

From the point of view of a philosopher or a physicist, there is no ontological difference between the sounds heard in teleological music and those heard in static music. In both cases, sounds happen but do not engender one another: contrary to what a Schenkerian analysis might argue, the opening chords of Beethoven's *Eroica* Symphony do not physically generate the ensuing exposition. Scruton (1997, 19) states that this sense of inevitable growth characterizes what he defines as "tone," but even Scruton would acknowledge that this causality is in the mind of the listener, not an objective reality. Yet the illusion of organic development in Western art music is nevertheless important because it drives both the creation and the reception of these works. When we listen to teleological music, we fall into the habit of attributing agency and volition to sounds. But static works confound our experience of aesthetic time, because they renounce any claims toward organicism or development. Instead, they highlight our experience of the

empirical time of the artwork, the sometimes uncomfortable, sometimes heavenly length of time it takes to sit through a long drone work, the seemingly arbitrary duration of a techno track. Static works remind us that their materials are not fertile seeds poised to grow but rather inert objects. Two examples can help illustrate this point: a dub track produced by Augustus Pablo and an ambient track by Sawako.

Dub provides the most accessible acoustic example of this objectlike quality in static music. Dub reggae in the 1970s was one of the first genres to elevate the producer above the musician. In an album such as *King Tubby Meets Rockers Uptown* (1976), for instance, the musicians play straight-ahead reggae songs, but producer Augustus Pablo scatters and disassembles those songs, removing some tracks, treating others with heavy reverb or echo, and looping other materials. The strange moments on this album occur when a dub effect overtakes the underlying material, when a background singer's shout is made to echo and fade away while the percussion continues untreated at a consistent volume. In flaunting their acoustic artificiality, these sound effects alienate what was reassuringly musical material. Dub treatment renders sound awkwardly present and long-lasting, no longer camouflaged inside the frame of the track. Similarly, dub techno uses echo and reverb to mitigate the reassuring clip of the bass-drum beat. Thus, Basic Channel and Gas work a sleight-of-hand on the EDM template, showing that the automatism typical for a dance track can no longer be taken for granted. In dub techno, our experience of time is Adorno's empirical time, where listeners are attuned to the unnaturalness of the dissipation of sound.

"August Neige" (2007) by the ambient electronica artist Sawako contains several loops that repeat at different rates, producing something akin to a solar-system model whose planets rotate about their sun at varying speeds (🔊 audio example 9: Sawako's "August Neige"). The track begins with the sounds of plucked instruments that outline a major triad plus the sixth; this chord never modulates. The faint, repetitive scratching of a phonograph needle that occurs when a record finishes spinning marks time in what is otherwise a static cloud of sonorities, to which the sound of half-whispered, half-sung words contributes from time to time. At one moment before the two-minute mark, the sound of a speeding vehicle races across the stereophonic field from the right to the left channel. This recording shimmers and hangs suspended in time, calling to mind perpetual-motion machines that could supposedly click and churn indefinitely. Because each strand of material has its own rate of repetition, events do not line up or synchronize regularly, meaning that Sawako probably created these sounds separately without determining any particular alignment. The comparison with perpetual-motion machines is apt, because we can listen to "August Neige" as well as drones and

dub techno differently from the way we normally listen to music. This type of listening is predicated not on expectations about what musical works do but rather on attention to the material qualities of sounds, how they linger and finally decay. Static music—music that is maximal in terms of its duration and repetition—engenders a condition that is unmusical: the absence of development, of growth, of organicism. Because there are no expectations regarding the ways in which materials will interact with one another, the duration of these works is arbitrary; a drone or dub work that lasts fifteen minutes is no less legitimate than one that lasts five hours.

We now turn to another curiosity in maximal music: the tension between noise and beauty. This polemic furnishes another example of how maximal electronic music exists in a dialectical relationship with conventional music. Noise music seemingly does everything it can to avoid conventional notions of beauty, which can be interpreted as resisting the idea of music altogether. But this resistance is an ambivalent gesture, for the very act of thwarting beauty by creating ugliness in fact reinforces the idea of beauty.

NEGATIVE BEAUTY

It is no coincidence that the titles of many works examined in this chapter allude to extremes of nature. There are the many references in drone music to the sun: the drone metal band Sunn O))); John Cale's album *Sun Blindness Music* (1965–1968); the album cover of clarinetist Anthony Burr and cellist Charles Curtis's performance of several Alvin Lucier drone pieces (2005), which features an infinite promulgation of sound waves that could easily be mistaken for a depiction of sun rays. Even Phill Niblock's "Valence" (2006) refers to radiation, except that here it involves the level at which electrons orbit the nucleus of an atom. Drone music also features nocturnal references, such as Jim O'Rourke's two-hour drone work *Long Night* and Model 500's techno hit "Starlight." If we are generously metaphorical in interpreting the sun as a symbol of warmth and therefore life, its antipode would be Radigue's *Trilogie de la mort*, a three-movement drone rumination on Tibetan Buddhism's interpretation of death.

What these works and many others like them share is a sense of extremity, of excess, of long duration, and of testing the limits of endurance. This is not a new sensation: Kant famously classified these traits as constituting the sublime, which, he wrote,

> is to be found in a formless object, so far as in it or by occasion of it *boundlessness* is represented, and yet its totality is also present to thought. . . . Therefore the satisfaction in the one case is bound up with the representation of *quality*, in the other with that of *quantity*. But the other [the feeling of the Sublime] is a pleasure that arises only indirectly; viz., it is produced by the feeling of a momentary checking of the vital powers and a consequent stronger outflow of them, so that it seems to be regarded as emotion,—not play, but earnest in the exercise of the Imagination. (Kant 2000, 101)

Sublime objects are impossible to encase within a frame because of their sheer scale. They inspire within the viewer a sober respect and awe that Kant describes as a "negative pleasure," whereas beautiful objects elicit unambiguous pleasure thanks to their adherence to perfect, universally recognizable forms.

Yet the paradox in maximal works by Alva Noto, William Basinski, Fennesz, Tetsu Inoue, and the many rock bands influenced by My Bloody Valentine, is that their materials might be considered conventionally beautiful if heard without electronic amplification or processing. These works contain a great deal of noise, and we can hear them as sublime objects because they contain an admixture of beautiful and dreadful elements: simple tonal language submerged in pure noise or extreme dissonance, loud volumes, and long durations. The noise in these works has hardly gone by without notice. Noise is one of the most popular subjects in electronic and contemporary music studies today, and thanks to Hegarty's work (2007; 2008), we now have a critical vocabulary and historical frame in which to contextualize (or fail to contextualize, as Hegarty would see it) noise works. The facet I want to explore here is not noise per se but rather why so much of noise music is, underneath its deafening volumes, distortion, and feedback, so traditionally beautiful. Beauty here is obviously in the ear of the beholder, and I make no claims regarding the aesthetic value of these works. Yet amid devices and imagery that point to the pushing of physical, physiological, and psychological limits, these works use consonance and tonality, foundations of the language of Western art music. Electronica artists usually posit themselves as avant-gardist in terms of both their methods and their position within music history. Why, then, would they employ aspects of an older musical language that have become so suspect?

Tonality and consonance might well have vanished from late-twentieth-century experimental music. The efforts on the part of the Second Viennese School composers to wrest musical language from cliché targeted consonance and functional harmony for being reactionary, for having outlived their expressive capacity. Integral serialism and mid-century experimentalism further insisted on the avant-garde's alienation from conventional expression, spurred on by statements from Adorno such as "Loyalty to the image of beauty results in an idiosyncratic reaction against it. This loyalty demands tension and ultimately turns against its resolution" (1997, 53).

Adorno and many composers associated with the Darmstadt summer courses condemned the language of conventional beauty for offering false consolation, the empty promise that an artwork could provide closure and order in a world that had resoundingly rejected such comforts. For this brand of modernism, art could remain faithful to the ideal of beauty only through rejecting facile attempts at beauty. Easily consumable features of musical language such as tonality, catchy melodies and rhythms, and sentimental themes turn music into a commodity, allowing it to be sold piecemeal for the fleeting pleasure it offers to listeners. For Adorno, the presence of such commodifying elements cheapened music and rendered it a mass-culture product, so contemporary art music had to reject these elements if it was to retain any claim of integrity.

The recuperation of tonality and beauty into the language of experimental music is largely the work of non-Europeans, particularly American minimalists such as Steve Reich and Philip Glass, as well as non-Westerners such as Toru Takemitsu. Their works freely blend elements of high and popular culture, asserting that accessibility and expressivity are not incommensurate. This having been said, Adorno's critique of beauty still exerts considerable influence. There remain serious reservations even on the part of popular musicians about beauty's connections to naiveté and commercialism. For some, the way around this potential stumbling block is the pairing of beautiful writing with noise, static, interference, and the placing of these elements in situations that demand concentrated listening over long stretches of time. Beautiful melodies and recurring consonances can thus destabilize a work, making it excessive, voluptuous, and decadent. Noise and beauty might initially seem like opposites, but in combination, they dismantle the musical frame that used to maintain a healthy distance between the artwork and the outside world.

In other words, beauty and noise in electronic music can conspire to produce a sense of excess, a concept that Bataille explores in some detail. Bataille's idiosyncratic theory of economics holds that excess rather than scarcity drives markets, cultures, and physical bodies. Excess results when gifts are given without the expectation of reciprocity or when living beings consume more than they need to maintain basic vital functions. With excess consumption arises the problem of what to do with the surfeit; it can be stored as fat, given away, or sacrificed. In looking at Aztec culture, where sacrifice—particularly human sacrifice—was routine, Bataille argues that excess consumption subverts the belief common in modern Western cultures that the future must trump the present:

> If I am no longer concerned about "what will be" but about "what is," what reason do I have to keep anything in reserve? I can at once, in disorder, make an instantaneous consumption of all that I possess. This useless consumption is *what suits me*, once my concern for the morrow is removed. And if I thus consume immoderately, I reveal to my fellow beings that which I am *intimately*: Consumption is the way in which *separate* beings communicate. (Bataille 1989, 58)

Gaillot applies Bataille's theory of excess directly to techno, arguing that its endless dance beats and nonteleological structures "can, of course, only express [techno's] opposition to the fact that existence is ordained exclusively on this sacrifice of the present with a view to the future" (1999, 25).

Within maximal electronic music, excess often leads to discomfort or even pain. Drone music places great physical demands on the listener: to tolerate one or a very small number of static sounds that are often monotonous or even grating and to remain still while the work takes many minutes or even hours to unfold. The assault of a Merzbow or My Bloody Valentine concert forces listeners to brace themselves for volumes that can cause nausea and permanent hearing loss. Even in recordings or live performances of EDM that reside safely within healthy decibel levels, the repetition of seemingly endless beats that do not culminate in any appreciable sort of climax can seem stifling.

And yet many people enjoy listening to these types of music. The pain and tedium of hearing a long, loud single pitch can be accompanied, even eclipsed, by something resembling ecstasy. In his excellent description of watching My Bloody Valentine perform an extended noise section from their song "You Made Me Realise," McGonigal (2007) relates how the band's choice to turn *all* speakers, even monitors, to face the audience led to mayhem. Many fans simply ran out of the concert space; others swayed in confusion and pain. And then the epiphany happened, the transcendent moment when surreally beautiful overtones and harmonics seemed suddenly to descend on a bed of deafening noise. This moment acquired mythic status among My Bloody Valentine audiences and was reproduced at dozens of concerts, to the point where fans expected and even demanded it. According to MBV leader Kevin Shields, though, the epiphany was not brought on by any particular action or event but was rather a psychoacoustical quirk, the moment when excessive volume and pain trigger auditory hallucinations. Nothing changed objectively in the band's playing, nothing was added, and certainly nothing was taken away; it was rather the nature of the listening experience that suddenly embraced with quasi-religious fervor what it had resisted only moments before.

Experiences of the sublime in art often assume the dimensions of religious epiphany. These moments are transactions, trade-offs in which the compensation for agony, imprisonment, or the deprivation of the senses is

enhanced appreciation of other sensory faculties. Bataille again proves instructive, especially through his fascination with a 1905 photograph of a Chinese assassin who is tortured to death through the famous *leng chi* or "slow-slicing" method. The torturers cut away portions of the assassin's flesh while keeping him alive and conscious through administering opium. The photograph captures the assassin's upturned face at a moment (one hopes) shortly before his death; he is almost smiling while looking up at the sky, so far beyond the threshold of pain that he is delirious and even joyful (Smith 2001). Bataille and, in the present day, Merzbow mention the sense of liberation that occurs paradoxically through bondage. This explains Merzbow's professed interest in sadomasochism and, as Hegarty (2007, 155–165) explains, his use of noise as an instrument of bondage and discipline. I want to apply these concepts to some static works, not all of which deal with pain or suffering but which do participate in the same sort of transaction, where the limiting of certain musical parameters leads to the enhanced appreciation of other parameters. Or, as the back cover of the SunnO))) album *Black One* puts it, "Maximum volume yields maximum results."

Mechanization, excess, dread, and *delight* should sound familiar, because they are the adjectives used to describe the *technological sublime,* Leo Marx's term for the moment when machines and industrialization began to be perceived as aesthetically legitimate objects rather than mere tools (Marx 2000). Many electronic musicians recycle the discourse of the technological sublime in their work. Cascone's diagnosis of the aesthetics of failure, synthpop musicians' fidelity to analog instruments, and the importing of the sounds of machinery from rail cars to water-treatment plants in musical works all showcase the simultaneous attraction and repulsion of modern technology. But in the examples just listed, conventional beauty is often lacking. Schaeffer's *Railroad Etude* features the sounds of trains looped into rhythmic patterns but to the exclusion of melody or harmony. Cascone's microsound compositions are usually abstract and certainly avoid anything as commonplace as a consonant chord or cadence. And so the choice of simple, consonant melodies in maximal works is not one we can take for granted. Hegarty (2007) points out that industrial acts such as Merzbow, Nurse with Wound, and Throbbing Gristle perform noise *as noise*, as something dissonant, ugly, and painful. Hegarty is correct with regard to these particular artists, but this observation runs the risk of suggesting that all noise and distortion are necessarily intended as friction or signal jamming that thwarts traditional aesthetics and notions of beauty. In cases where some vestiges of conventional harmonic or melodic beauty linger, the role of noise, repetition, stasis, and distortion shifts to negative beauty, a pleasure that does not conform to Kantian standards of balance and semblance but nonetheless aspires to the condition of beauty. The sublime and the beautiful are thus not so much opposites as they are different destinations along the same trajectory.

Noise in rock music is arguably intrinsic to the medium. Feedback, the assault of a drum set, and the seditious messages of many rock lyrics all seek to subvert the norms for seemly and compliant behavior. But this cliché errs in emphasizing the ugliness of noise over its aesthetic potential. The first act to make noise central rather than peripheral to music was the Velvet Underground. It is important to keep in mind that the two creative forces behind the band were Lou Reed, whose previous job was as composer for a bubblegum pop songwriting factory, and John Cale, whose forays into the New York avant-garde scene included collaborations with John Cage and La Monte Young. Reed brought a rock-and-roll sensibility, while Cale brought drones and extended jam sessions. These two elements were not as diametrically opposed as one might think. The aching quiet of "Candy Says" (1969) is similar to at least the beginning of "Heroin" (1967), but "Heroin" gradually swells in volume until it becomes a screeching roar. Nico's voice complemented the band so well because it was an amalgam of these two tendencies, a soft contralto that could be soothing or strident depending on how much Nico pushed it.

The many bands that derived inspiration from the Velvet Underground tend to borrow more heavily from the noise end of the band's repertoire. Sonic Youth, the Jesus and Mary Chain, and My Bloody Valentine are famous for overloading their tracks with feedback and distortion and playing at extremely loud volumes. But even at their loudest, these bands often play melodies that are at their core consonant. Fennesz provides the best example of this, especially with his 2001 album *Endless Summer*, whose "Caecilia" I discuss in chapter 2. "Caecilia" and other tracks on this album pit the innocence of surf rock against glitches, white noise, and distorted electronic and acoustic instruments. Even more so than *Endless Summer*, Fennesz's earlier album *Plus Forty Seven Degrees 56' 37" Minus Sixteen Degrees 51'08"* (1999) uses bluntly simple materials: cascades of static that threaten to overwhelm a simple sustained major chord. Whereas Cascone might diagnose glitch sounds on their own as signs of frustration with the recorded medium and its failures, when these sounds of failure occur alongside sounds conforming to traditional ideas of beauty, something different is at play: not the critical deconstruction of the boundaries that have marginalized noise from musical language for so long but rather the desire for a return to conventional aesthetic language mixed with the knowledge that such a return is impossible. What makes Fennesz's music so heartbreaking is that it knows that carefree beauty is naive and inaccessible.

Kevin Drumm's reputation as a noise musician is certainly warranted, thanks to sonic assaults such as *Sheer Hellish Miasma* (2002), an album

containing unremittingly hostile sounds whose provenance is far from clear. (Drumm is famous for his prepared guitar playing as well as for being able to create seemingly new sounds from conventional instruments and techniques.) His album *Imperial Distortion* (2008) stands out as a surprise and perhaps a return to form, given that his earlier works were generally quieter. *Imperial Distortion* features spare drones that slowly fade in and out of existence. There is virtually no rhythm or even regular pulse to the piece, just a series of ghostly isolated pitches and, from time to time, a sustained chord. This reductive approach continues almost for two entire compact discs, that is, until the last several seconds of the appropriately titled "We All Get It in the End," when Drumm unexpectedly cuts to the type of searing electronic noise typical in *Sheer Hellish Miasma*. This cut is totally unprepared and might well be a joke at the expense of listeners who might have been lulled or even bored by the placidity of the album's previous two hours. Where Fennesz gilds his consonant sounds with noise and distortion, Drumm takes a purist approach; his consonances are spare and unadorned but also unfettered by noise. *Imperial Distortion* can, of course, be heard on its own merits, but its effect is more dramatic when heard with the knowledge of the types of sounds Drumm is capable of producing and indeed *does* produce in the last few moments of the album. Drumm demonstrates that violence and illness (the first track on the album, "Guillain Barré," is named after a debilitating syndrome involving paralysis) are the inevitable companions of beauty.

The examples of consonance and beauty considered here employ rudimentary materials, usually a repeating scalar motive or a sustained note or chord. Moments of beauty and consonance rarely exceed these simple means, probably because to have more complicated melodies or harmonies would distract from the presumed aim of winnowing down musical expression to a few elements that play for long stretches of time. The maximal qualities or excesses in these works stem from how these minimal elements are deployed, eliciting what many listeners describe as an experience like listening from underwater, where sounds reach the ears only through considerable mediation. Negative beauty is a way of mitigating the horror of both noise, which is by definition supposed to be alienating, and consonance, which in its own way can be just as horrific, considering what its presence confirms or denies about the inherent goodness, beauty, or order of the outside world. These examples reveal the world for the dark, oppressive, and yet hope-inspiring place that it is.

Still, such combinations of horror and beauty do not represent all of electronic music. In some extreme variants of electronic music, such as the famous *Filament 1* album as well as some recordings by Merzbow, there are no gestures toward conventional beauty, no consonances or cadences. But

unrelenting noise is also absent. Rather, these works present a sort of hermetic purity, a scarcity of materials whose constant repetition underscores the textures of the sounds. *Filament 1* was a 1998 collaboration between Japanese experimental musicians Otomo Yoshihide and Sachiko M. Their album consists of very little besides tiny record snaps and crackles, sine tones, and digital fluttering. It flatly refuses to give listeners anything vaguely musical to grasp. But this refusal paradoxically makes the album eventually emphasize the sensuality of hearing. The minute details in its tiny sounds become beautiful because they are allowed to emerge from an otherwise blank canvas. Merzbow's album *Merzbuddha* (2005) achieves a similar sort of sensuality in listening situations where it is not played at an extremely loud volume, but this is a provision worth mentioning, because Merzbow's concerts often are deafeningly loud. *Merzbuddha*'s sounds are predictably atonal, irregular, and looped, but there is sensuality here, too: throbbing bass ostinatos, occasional record-player cracks, and hiss in the high treble give the listener contrasting textures that offset what might otherwise simply be heard as noise.

Readers might object that I have used the terms *beauty* and *noise* as if they have an a priori definition. This is a reasonable objection, but let me approach the issue in a different manner. Many, if not all, of the musicians I consider here possess a sophisticated knowledge of many types of music, so much so that they are aware of the historical implications inherent in any invocation of tonality. In contemporary art music, it would be considered naive to hear any consonance uncritically, as merely an isolated instance without connection to the rise and fall of functional harmony. This does not mean that we need to hear these works as engaging in a dialogue with Schoenberg or Boulez but only that we should hear them as one might hear a contemporary writer who employs Shakespearean English: as a purposeful use of a language that has in some sense already died.

Now that we've spent some time with works that bristle against interpretation or decoding, we can return to electronic music that does conceive of sound as meaningful. But unlike the works detailed in chapters 1 and 2, those in chapter 5 locate meaning less in the structure or syntax of musical language than in the ways sound can evoke ideas of space, place, or location. The final part of this book, "Situation," attends to two different concerns: how sound is enmeshed in a site and how electronic-music aesthetics emerge from the discourse surrounding genre, distinction, and experimentalism. Chapters 5 and 6 discuss sound as always tinged by its physical and cultural surroundings.