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Musical aesthetics below ground: volcanic action and the geosocial in Sigur Rós's "Brennisteinn"

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ABSTRACT

This article presents a musicological and ecocritical close reading of the song "Brennisteinn" ("sulphur" or, literally, "burning rock") by the acclaimed post-rock band Sigur Rós. The song—and its accompanying music video—features musical, lyrical, and audiovisual means of registering the turbulence of living in volcanic landscapes. My analysis of Sigur Rós's music opens up a window into an Icelandic cultural history of inhabiting a risky Earth, a condition captured by anthropologist Gísli Pálsson's concept of geosociality, which emerged from his ethnography in communities living with volcanoes. Geosociality allows for a "down to earth" perspective that accounts for the liveliness of the ground below our feet. Likewise, in Sigur Rós's "Brennisteinn", we encounter a musical imagination of the geologic that poses a challenge to hegemonic concepts of nature founded on notions of equilibrium and permanence. The article culminates with a consideration of what such a geologically minded aesthetics can offer us in the age of the Anthropocene.

KEYWORDS

Sigur Rós; anthropocene; ecomusicology; ecocriticism; popular music; Iceland

Introduction

On the morning of 14 April 2010, the volcano underneath the glacier Eyjafjallajökull in southern Iceland started erupting.¹ The ash fall disrupted the patterns of mobility that have become the norm across the North Atlantic; suddenly, millions of people were affected by a non-human agent, revealing the entanglement of geology and the social in everyday practices such as air travel (Lund and Benediktsson 2011). The eruption of 2010 occurred at a time when the scientific term Anthropocene was gaining momentum as the name of a new epoch defined by the recognition of humans as a geophysical force. Although debates regarding the usefulness of the Anthropocene concept are ongoing, the volcanic eruption marked the beginning of a decade in which scholars across disciplines started to rethink the relationship between humans and geology in various ways.² I look to Iceland as a site that holds the potential for productive reflection on issues raised by the Anthropocene debate and their relation to the study of musical aesthetics.

In Iceland, there is a long tradition of people coming to grips with an unruly environment through storytelling and the arts. Folkloric practices—including the traditional song cycles called *rimur*—often place human social troubles on a stage alongside treacherous lava fields and the hidden agencies of rocks and crevasses. In the mid-twentieth-century orchestral music of Jón Leifs (1899–1968), volcanoes

are enlisted as symbols to serve his narrative of the newly independent Icelandic nation. In contemporary music on the island, thematic and sonic engagement with seismicity is a palpable aesthetic across genres. With this cultural history in view, I will engage with a song by Icelandic post-rock band Sigur Rós to discern a musical aesthetics that registers the turbulence of human–environment relationships on a volcanic island.

Sigur Rós composed and recorded their album *Kveikur* (2013) in the period following the Eyjafjallajökull eruption, the most significant volcanic activity on the island in several decades. The music delves into the earth for its geological inspiration, with song titles such as "Brennisteinn" ("Brimstone," or sulfur), "Hrafninn" ("Obsidian"), "Ísjaki" ("Iceberg"), and the title track "Kveikur" ("Fuse," yet etymologically related to the English "quake"). *Kveikur* marks a clear stylistic development in the career of Sigur Rós. It is the band's darkest and heaviest record to date, containing more rhythmic activity and faster tempos than their earlier output.

Sigur Rós's album presents an opportunity to explore the capabilities of musical aesthetics to express the entanglements of humans and geology in Iceland and beyond. Focusing on the album's opening track, "Brennisteinn," and its accompanying music video, I will illuminate the musical and audiovisual strategies used in its production. I will further frame my analysis via the cultural history of volcanoes in Iceland and the theoretical framework of

geosociality, as developed by Gísli Pálsson. My aim is to shed new light on the recent music of Sigur Rós by seeing how its aesthetics resonate with Pálsson's path-breaking work. In the process, I open up the frequently discipline-specific method of music analysis to the broader concerns of the environmental humanities.³

Living with volcanic landscapes

Situated on top of the mid-Atlantic ridge and subjected to tectonic forces, Iceland is one of the most active volcanic regions on Earth, with more than twenty eruptions per century in historical times (Thordarson and Larsen 2007). A total of thirty volcanic systems cover a large section of the island. Icelandic volcanism is likewise exceptionally diverse: The island contains all known volcano types and has experienced all known eruption styles, from the iconic explosions of stratovolcanoes to the cracks and fissures that erupt continuously for years and even decades (Thordarson and Ármann 2008). With its uniquely turbulent ground, Iceland challenges established models of nature founded on notions of equilibrium and permanence. As such, it asks us to acknowledge the Earth as more than an inert backdrop to human activity. Turning our minds and ears towards Iceland could provide insights that are politically relevant as we move forward into the Anthropocene.

Over the centuries, people in Iceland have had to adapt to the facts of volcanic eruptions and seismic activity. Ever since humans first settled on the island in the ninth century, the volcanic environment has shaped political trajectories there. A major volcanic eruption may have catalyzed the profound cultural changes that occurred in the tenth century, as Icelanders converted to Christianity (Oppenheimer et al. 2018). Likewise, in the late eighteenth century, the catastrophic effects of the Laki eruption fed into sentiments about Danish mismanagement and effectively ended the Danish trade monopoly that had kept Iceland a colonial outpost (Oslund 2011, 38). A century later, worsening agricultural conditions following the Askja eruption of 1875 sparked a wave of Icelandic emigration to the New World (Vanderhill and Christensen 1963). In other words, there are seismic undercurrents to every major junction in the social history of this island.⁴

Unsurprisingly, then, volcanoes figure in the cultural history of Iceland as well, occurring in literature, folk stories, and music not only as symbols or motifs but also as personas with an agency of their own. The volcano Hekla is perhaps the most notorious of all Icelandic volcanoes. In the Middle Ages, Hekla attained mythical status in Catholic Europe as a symbolic hell, or even the gateway to hell itself.

Sigurður Thorarinsson (1970) suggests that tales of Hekla were spread intentionally by Cistercian monks in order to deter people from sinful behavior by providing physical evidence of the existence of hell. Hekla's first eruption after the settlement of Iceland occurred in 1104, and horrific tales of its fiery inferno soon began to spread. Several written accounts, referenced by Thorarinsson, then named Hekla as the entrance to hell on Earth (1970, 4–7). Traces of the cultural history surrounding Hekla can still be found in the Swedish colloquial phrase *dra åt Häckleffjäll!*, meaning “go to hell!”⁵

The seismic undercurrents of the Icelandic landscape are increasingly relevant to its national politics today. Elsewhere, I have discussed Iceland's troublesome history of hydropower production (Størvold 2019). Like its waterfalls and rivers, its volcanism has not escaped attempts at industrial transformation for energy production. Following the same patterns of technological optimism and a firm belief in capitalist logics of progress, Iceland's volcanism is fast becoming the next big target for energy companies. Landsvirkjun (the Icelandic National Energy Authority) and the private company Reykjavík Energy (RE) are currently pioneering efforts to control and harness seismic activity in the production of geopower. These practices reveal interesting ways of working with an environment that is fundamentally unpredictable. The anthropologist James Maguire has studied the geologists of Reykjavík Energy as they work in the South Iceland Seismic Zone (SISZ) to amplify and accelerate seismic energy. This work involves “induced seismic activity” (manmade earthquakes) in order to produce enough geopower to meet the big contracts with the aluminum industry entered into during the boom years of the mid-2000s. The results are highly unpredictable, and residents of the small towns near the geopower plants are regularly impacted by the seismic instability (Maguire and Winthereik 2016).

The geologists of Reykjavík Energy attempt to “arrange” the seismic landscape, working with and modifying its “natural” behavior (Maguire 2017). At times, the geologists are simply guessing, with little sense of what the effects of their interventions into the landscape will be. The Earth reveals itself to be fundamentally unpredictable in a way that challenges the idea of the geologic as non-living. In fact, Maguire's ethnographic evidence suggests that geopower engineers in Iceland indeed view the seismic landscape as a living agent. Despite public opposition from local communities near the geopower plants, these efforts are expanding: once any attempt to modify the behavior of seismic activity gets underway, it is difficult to unwind or halt. Every time the geologists try to change something, that is, the Earth responds with increased seismic activity. Maguire

concludes: “While the earth has always been unruly in Iceland, the attempt to live—or be-in-the-world-together—with it, beyond relations of asymmetry (the earth destroys) or dominance (we utilize the earth at will), requires a responsive mode of engagement” (169). It is precisely such a “responsive mode of engagement” that has been sought out by Gísli Pálsson in his work on geosociality.

The geosocial

Pálsson lost his family home in the volcanic eruption at Heimaey in the Westman Islands archipelago in 1973, an eruption that buried the whole community in meters of ash; it is now known as the “Pompeii of the North.” The paradigm shift signaled by the Anthropocene is Pálsson’s starting point for returning to his biographical roots, using a critical auto-ethnography to build his framework of geosociality, or “the commingling of the geologic and the social and the sensibilities involved” (Pálsson and Swanson 2016, 149). Geosociality allows for a “down to earth” perspective characterized by a sensitivity to the liveliness of the Earth, and it is vividly illustrated by the events at Heimaey in 1973.⁶

The island of Heimaey is the largest of the Vestmannaeyjar (Westman Islands), an archipelago stretching outward from the southeastern tip of Iceland. The town at Heimaey had around five thousand inhabitants at the beginning of the 1970s (a significant population in an Icelandic context), with the natural harbor providing safe moorings for one of the most thriving fishing economies in the country. On January 23, in the middle of the night, the ground shook as the volcano Helgafell, located approximately one kilometer outside of town, began erupting. In the ensuing chaos and uncertainty, as constant ash fell like a heavy rain, the entire population safely evacuated to the mainland in a matter of hours (Williams and Moore 1983). But the danger was far from over: streams of lava were steadily flowing down toward the harbor, threatening to fill in and destroy the fishing port. Avoiding the destruction of the harbor became a paramount concern.

The following weeks witnessed the “battle against the lava,” a complicated series of events described in detail by Pálsson (2017). This episode is arguably unique in world history, as a local community found ways to halt and divert the lava streams of an ongoing volcanic eruption. In the end, the Icelanders managed to cool and solidify the lava by pumping huge amounts of seawater onto the advancing mass, ultimately halting it just beyond the harbor. The hill that resulted from the cooled lava cannot be considered a “natural landscape,” as human agency was active in its very formation and the amount of seawater pumped onto the rock resulted in a particular

water-hardened stone (Pálsson and Swanson 2016, 159). This remarkable episode, and its lasting impact of the future development of Heimaey, represents a vivid example of geosociality.

A geosocial lens captures the significance of such local experiences of living with a volcanic environment. Yet it can also do more. Geosociality can be mobilized as a political position: as a mode of engagement with the environment that accommodates the capacities and reactions of the Earth in our social configurations. For scholars, the geosocial perspective can help to spotlight areas of social and cultural life that we sometimes miss, including a legacy of artistic interaction with a lively Earth. For the current concerns of this article, the geosocial perspective allows for a culturally grounded music analysis where the concept of culture encompasses environmental and geologic relations.

Composing the ground

The sonic, visual, and symbolic spectacle of volcanoes has long excited the imaginations of Icelandic composers, impacting musical aesthetics throughout the last half-century of music on the island. The prominent Icelandic composer Þorkell Sigurbjörnsson (-1938–2013) reflected on the complex sonic characteristics of volcanoes, describing the sounds in detail: “At the crater itself there are thunderous, explosive sounds and even near the crater you can feel the ground shaking. The fatal walls of lava ... are almost silent, but not quite, for listening carefully you can hear delicate, brittle snaps in the crust—dry clicks, like the fracturing of glass, spread out for miles. When it meets wet land the lava also hisses in a suffocating sort of way” (Sigurbjörnsson, quoted in Schafer 1977, 26).

Perhaps the most famous musical treatment of volcanoes is the national-romanticist symphonic works of Jón Leifs. His orchestral tone poem *Hekla*, op. 52 (1962), named after the volcano, is a musical-mimetic animation of a volcanic eruption in deafening loudness, featuring an unusually large percussion section replete with chains, anvils, and sirens. In *Hekla*, the musical material converges with the iconicity of the volcano, producing a powerful statement in service of the composers nationalist idea of an “Icelandic character” (Ingólfsson 2019). Performances of the work are notoriously difficult, partly because of the demands made by the composer, who even specifies the placement of large rocks on stage.

Geology also figures as an aesthetic sensibility in contemporary music on the island. Composers Haukur Tómasson (b. 1960), Þuríður Jónsdóttir (b. 1967), Valgeir Sigurðsson (b. 1971) and Páll Ragnar Pálsson (b. 1977) have written music for orchestral and chamber ensembles that go deep underground in

their search for musical structures and sound wrought in geological terms. Jónsdóttir writes about her orchestral piece *Flow and Fusion* (2013): “One of the images I had in mind while writing *Flow and Fusion* was different streams of glowing hot magma coming together in one surging lava flow which cools down, becomes a rock ... and echoes” (Jónsdóttir 2019). The language of geology provides a means of describing compositional and structural techniques in music—drones, layering, transformations, sudden gestures—and simultaneously placing ones music more firmly in the local environment. Geologic rhetoric is likewise well-suited to evoke music’s complex polyphony of emotional states. In the music of Páll Ragnar Pálsson, a “quake” can be as much psychological as it is geological. The composer has achieved international success with the cello concerto *Quake* (2016) and the concerto for flute and bassoon, *Crevasse* (2019). Although these titles direct our ears towards the geologic features of Iceland, the music is as much about the people who live there, in the narrow belts of farmable land in-between the glaciers and the sea. Composing music can be a way of attending to the histories and memories that lie hidden in each crevasse.

Geology is also a productive aesthetic terrain in popular music: one stylistic precedent for Sigur Rós’s *Kveikur* is the “volcanic” beat production on Björk’s 1997 album *Homogenic*. In describing *Homogenic*, Björk was explicit about her search for “an Icelandic techno,” where the beats would sound as though they were “still in the making”—a reference to Iceland’s active geology, which continues to create new land masses (Björk, quoted in Micallef 1997). Similarly, Björk’s song “Mutual Core” from the 2011 album *Biophilia* incorporates geology in its compositional and lyrical material. The award-winning music video for “Mutual Core” features an audiovisual merging of the human and the geologic, with Björk’s voice hardening into mineral form by way of technological treatments.

In a sense, volcanoes are acoustic beings. The underground movement of magma and the venting of volcanic gasses continually emit so-called harmonic tremors, vibrations that are (for the most part) inaudible, because they appear in the infrasonic range below the threshold of human hearing (20 Hz). Still, these sonic signatures are invaluable to volcanologists, who use low-frequency-response microphones in order to register acoustic data that reveals patterns in volcanic activity invisible to the eye. The harmonic tremors emitted by volcanoes increase in frequency before an eruption, as pressurized magma forces its way to the surface. Then, of course, when an eruption occurs, the sound produced is anything but inaudible—in fact, volcanic eruptions have produced some of the loudest sounds ever to occur on earth. The

explosion of the caldera at Krakatoa, in modern-day Indonesia, in 1883 produced sounds that were heard at a distance of 4,500 kilometers. An earlier extreme eruption at Tambora in 1815 created a “volcanic winter” of extreme climate conditions, causing famine across Europe from 1816 to 1818. This climatic event has been viewed as integral to understanding the emergence of the gothic literature of Mary Shelley and others (Wood 2014). There is, in other words, a tradition of connecting the geologic forces of the earth to imaginations of the apocalyptic, which is what Sigur Rós does on their album *Kveikur*. In its sonic, lyrical, and audiovisual features, the album connects volcanic imagery to visions of transformative environmental events that decenter the human, clearing space for the turbulence of the ecological reality in the Anthropocene.

Burning rock

The opening track on *Kveikur*, “Brennisteinn,” was released as its lead single with an accompanying music video in March 2013. Written and produced by Sigur Rós, the song was met with almost unanimous critical acclaim. The title alone possesses geological and even theological connotations. “Brennisteinn” means sulfur, a common element (atomic number 16) found in abundance in Iceland’s unique volcanic soil. The distinct smell of sulfur is present in the many hot springs and geothermal regions around the country, as well as in the hot tap water in Icelandic houses, which is heated by steam obtained by drilling into geothermal hot spots. But the potent smell of sulfur also warns of volcanic eruptions, which produce dangerous levels of sulfur dioxide gases in the stratosphere, causing respiratory issues and acidic rain. When Eyjafjallajökull erupted in 2010, a local farmer reported that “first came the floods, then the smell of rotten eggs” (Booth and Carrell 2010).

The more ominous meanings of sulfur, then, are contained in the literal translation of “Brennisteinn” as “burning rock,” similar to the English “brimstone,” a more archaic word for the element. Indeed, the connection between sulfur and volcanic fire may have inspired the Biblical idiom “fire and brimstone” (translated from the Hebrew גפרית ואש), used to mean the wrath of God and the torments of hell. In the Book of Revelation, “fire and brimstone” even warns of the very ending of the world. This idiom appears in the Icelandic translation of the Old Testament in the phrase “eldur og brennisteinn.” Through its sulfuric and Biblical reference, then, the title of Sigur Rós’s track engages in apocalyptic imagery that in turn suffuses the lyrics and the audiovisual aesthetics of the music video, to which I will return below.

In Iceland, volcanic fire played a part in literary imaginaries of the apocalypse even before the arrival of Christianity. In Norse mythology, the ending of

the world is foretold to Óðinn, king of the gods, by a prophetess (*völva*) in the poem known as *Völuspá*. The description of the ending of the world (*Ragnarök*) includes the mention of the “fire giant” (*eldjötunn*) Surtr, who comes from the south wielding his sword of fire. In Old Norse philology, there is a tradition of regarding Surtr as a “volcanic demon,” and he stands as a symbol of the apocalypse itself (Lindow 2001, 283). The passage in *Völuspá* that describes Surtr as “coming from the south” has led several scholars to speculate that the composition of the poem was inspired by the eruption at Eldgjá, in the south of Iceland, in 939 (Oppenheimer et al. 2018). Others suggest that the entire description of the ending of the world—the sun turning black, steam rising, fire consuming the heavens—is inspired by the dramatic experiences of volcanic eruptions of the early settlers on the island (Davidson 1990).⁷ There are important differences between the Judeo-Christian apocalypse (Book of Revelation) and *Ragnarök*, with Sigur Rós’s apocalyptic vision aligning more with the latter. Importantly, *Ragnarök* is *not* the end of the world but the final unraveling of the current world order, clearing the way for the world to be born anew and pointing to a utopic future (Lindow 2001, 42–43).

Musical style

“Brennisteinn” is suffused with distortion, dissonance, and feedback. Sigur Rós’s established post-rock style is merged with elements from other genres, including goth, industrial, and dark ambient. The track features sharp, percussive sounds along with the band’s characteristic bowed electric guitar, which generates waves of reverberating distortion. The impression is of a sonic concoction just barely holding together in the midst of an onslaught of feedback.

“Brennisteinn” has a total length of 7:58. Compared to much of Sigur Rós’s earlier work, which is characterized by long compositions in a cumulative and terminally climactic form, “Brennisteinn” embraces a common popular song form, its duration in this case the result of an extended bridge section and a two-minute coda of ambient noise (see Figure 1).⁸

The music is propelled forward by Orri Páll Dýrason’s imposing drum part, which was made to sound deliberately aggressive. The band’s producer, Alex Somers, said, “We wanted the drums to be really overdriven ... I made them as loud as possible when mixing the record” (Micallef 2014). In particular, the amount of compression applied to the snare drum makes the hits sound immediate and explosive. Even more prominent in the mix is the synthesized bass, the band’s first use of this instrument in its twenty-year career, and one much remarked upon by fans and critics. The band used a Moog Minitour analogue bass synthesizer, which supplies a steady presence in the low frequency range as it repeats the same figure throughout the main section of the song. The bass is mixed loud, with a sharp attack created by the sawtooth wave oscillator on the synthesizer. The prominence of this particular bass timbre is stylistically related to industrial rock (hear, for example, “The Becoming” by Nine Inch Nails) while also evoking the characteristic “wobble bass” of the dubstep sub-genre of electronic dance music (hear, for example, “Southern Comfort” by Burial). The bass and drums in “Brennisteinn” are examples of instrumental timbres pushed to the point where they start to fracture and come apart sonically. These are aesthetic strategies that translate impressions of a volcanic environment into a musical composition, using the low-range bass in ways that suggest the inherent musicality of the ground below our feet.

Sonic instability: timbral cracks and fractures

The crackling, fractured character of the instrumental sounds on the track creates the impression of a musical seismic activity. Beyond the aggressive drums and the bass, the bowed electric guitar is used to great effect in this regard. An iconic signature of Sigur Rós, I have described the production of this sound elsewhere (Størvold 2018). Bowing the guitar strings alters their overtone spectrum through harmonic distortion. By manipulating the angle and pressure of the bow across the strings, the performer is able to shift the emphasis among the different harmonic overtones. On “Brennisteinn”, the band’s guitarist, Jón Þór Birgisson (Jónsi), takes advantage of this technique to fashion chaotic, noisy structures

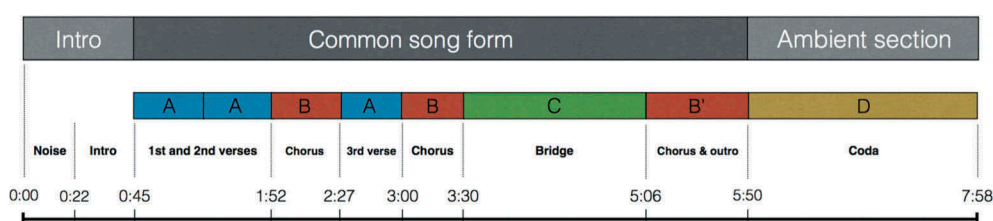


Figure 1. Formal diagram of “Brennisteinn.”

that continually fluctuate in tonal emphasis. The guitar sounds are then sustained by a heavy-handed use of reverb effects, and draped in a haze of feedback generated by where Jónsi plays in relation to his amplifier.

To further unpack the sonic instability of this track, I will zoom in on the opening of the song: a low murmur of white noise positioned “far away” in the virtual space of the stereo mix yet seemingly growing nearer (in this case, frequency modulation gradually introduces higher frequencies in the noise, making the sound seem to move “closer” to the listener). This chaotic crackle starts out at a very low volume yet grows louder as it closes in and spreads out to fill more of the stereo image. The white noise is characterized by sonic instability, in terms of its indeterminate pitch material and its continuous modulation in frequency and spatial quality. Something is indeed stirring. After twenty-two seconds, the band enters via an explosive attack that suddenly expands the dynamic range of the recording quite dramatically. Overdriven drums, the synth bass, and a wall of guitar feedback enter simultaneously to set the pulse of the song and signal the arrival of the first verse.

Figure 2 shows the amplitude envelope of the audio signal, represented as a waveform, of the first twenty-three seconds of “Brennisteinn.” The amplitude is represented on a scale from 0 to 1, where 1 represents the loudest signal that a digital system can reproduce before “clipping” (distortion) occurs. At the onset of the first attack in “Brennisteinn,” the signal peaks at the maximum level of 1, with audible clipping as well.

Through its sheer sonic excess (even exceeding the maximum capacity of the audio system), the band’s musical eruption gestures beyond human limits and capabilities, invoking the volcanic forces of the Earth.

Jón Leifs’s aforementioned orchestral tone poem *Hekla* employs the same musical strategy of excess. In both cases, the parameter of loudness, and its associated timbral characteristic of distortion, is used to invoke something that transcends the human. The immediacy of this effect is captured by theories of musical meaning coming from an embodied-ecological paradigm. In this context, Zachary Wallmark (2014) has studied the perception and appraisal of “extreme” timbres at the threshold of music and noise in heavy metal music. His argument is that the metaphors we use to describe such timbres are not arbitrary, but rather reflect shared bodily experiences of the world. Metaphors for timbre are “grounded by the basic experiential patterns of life: forceful interactions with objects, the feeling of bodily exertion, knowledge of physical limits, etc.” (162). As such, Wallmark provides a theory for why musicians and listeners interpret the loud and distorted sounds of heavy metal as something approaching or exceeding physical limits. Robert Walser gave a similar argument in 1993, turning to the physical constraints of the human body to explain the fascination with guitar distortion: “also the human body produces aural distortion through excessive power. Human screams and shouts are usually accompanied by vocal distortion, as the capacities of the vocal chords are exceeded” (1993, 42). With this in mind, we can better understand why Sigur Rós employ these musical strategies of excess in order to gesture beyond the human and evoke the volcanic.

The evocation of volcanism in “Brennisteinn” can be further illustrated using a comparative example. The sound-art piece *Eldfjall* (“Volcano,” 2005) by the Danish sound artist and composer Jakob Kierkegaard features the vibrations of volcanic activity transduced into sound using accelerometers. The accelerometers were placed below the surface of the Earth at various

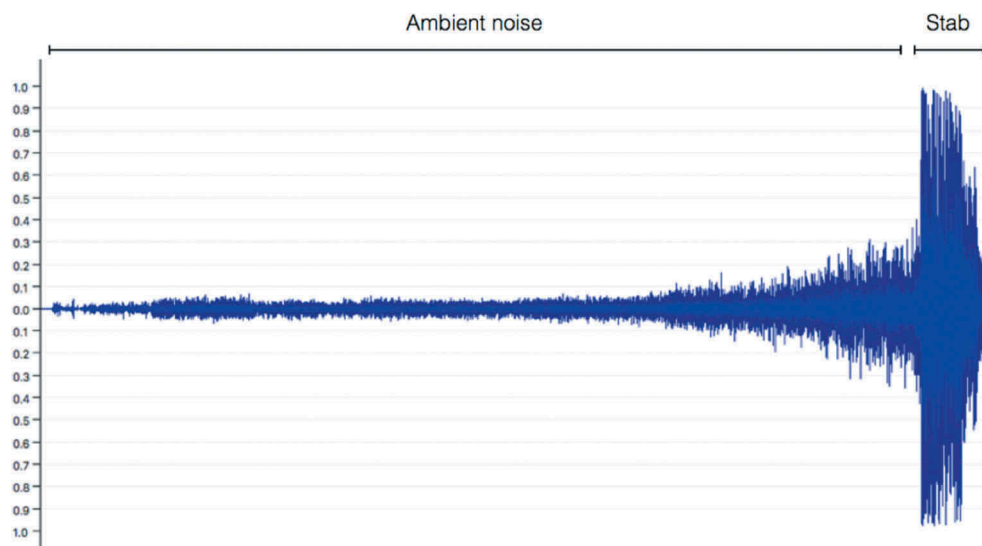


Figure 2. Waveform representation of the first twenty-three seconds of “Brennisteinn.”

locations around the geologically active areas of Krisuvík, Geysir, and Mývatn in Iceland, in order to capture the sonic characteristics of seismic activity just below the surface (Kierkegaard n.d.). In Kierkegaard's work, the sonic characteristics resemble the introduction to "Brennisteinn": a crackling and chaotic low-frequency noise expressing the restlessness of something that might be readying for an eruption—that is, a kind of sonic seismograph registering the vibrations of the Earth.

Darkness and the gothic

In the music press, "Brennisteinn" was readily received and described as "dark". Using a spectral analysis, we can examine the distribution of acoustic energy along the frequency range, revealing the music's darkness in its acoustic form. The spectrum of "Brennisteinn" is entirely dominated by the large amount of acoustic energy in the low frequency range. In fact, it is saturated with acoustic energy in the 50–100 Hz range, thanks to the synthesized bass. This relatively "dark" spectral profile gives the track a weight and fullness in the low end, which—together with the overdriven drums and noisy guitar—lends the song its sinister edge.⁹

A point of reference here, in terms of genre, is goth rock. Sigur Rós members revamped their presentation for the 2013 release of *Kveikur*, embarking on a world tour dressed in black and appearing in promotional photographs wearing black-colored clothing with distinctive links to goth fashion. Musically, the contrast between dark timbres and a high-pitched male tenor voice immediately recalls the iconic and genre-defining goth band The Cure. Likewise, an aesthetic interest in religious themes and apocalyptic visions represents another point of contact with goth music and subculture, which are described by Isabella Van Elferen (2017) as operating within a post-secular cultural moment of detached interest in religion. Goth is secular in its belief system but leans on an eclectic mix of world religions, occultism, and spiritualism in its style, symbols, and practices (ibid.). Sigur Rós's "Brennisteinn" is related to both Judeo-Christian theology and Norse mythology in the configuration of its apocalyptic vision, yet the band members (and their fans) do not link the music to religious experience as such.¹⁰ The music's sense of an ungraspable or liminal "something" beyond the ordinary is not tied to any specific religious orientation but is instead typical of both goth and black metal in its yearning to transcend the mundane with the aid of excessive musical gestures, visual symbols, and ritualistic performances. It also achieves this transcendence, as I have argued here, by drawing upon its uniquely Icelandic cultural and environmental context, as well as the backdrop of

the Anthropocene and the framework of geosociality. I read its transcendence as registering humanity's smallness in relation to the non-human agencies below the ground.

Thanks to its dark spectrum, dissonant timbres, and explosive dynamics, "Brennisteinn" immediately comes across as violent. However, as the voice enters for the first verse at 0:45, the style is surprisingly calm—the slow-moving melody in the tenor register is rather still in the context of the sonic turbulence that frames it. The vocal part is built around short phrases that end on long held notes, with a lot of space between each sung phrase. On this track, Jónsi foregoes his iconic falsetto for his tenor chest range. He sings with a relaxed larynx, allowing a lot of air to pass through and lending his voice a "breathy" quality that—together with the amount of reverb applied—produces a soothing vocal presence. The difference in pitch and register between voice and instruments is also profound, with Jónsi's voice floating high above the other sounds on the track.

The contrasting affects communicated by the vocal melody and the instrumental performances produce a fundamental doubleness that is key in realizing the song's particular apocalyptic narrative. Rather than communicating a sense of horror at the end of the world in volcanic fire, the track's calm, major-key melody suggests hope for the renewal of the world at *ragnarök*. The song lyrics in the second verse say the same: "Nú bræða óf, endalok/svo flæðir inn, dagsbirta" ("Now all melts, the end/Then daylight, floods in"). This semantic doubleness (all is ending, yet daylight floods in) resonates with the harmonic strategies used in the song, which anchor it uneasily between major and minor. The introduction to each verse is in Cm, but as the voice enters, the bass leaps up to E^b, making the verse effectively major (E^b comes across as tonic rather than minor third in the verses because of the vocal melody centers on E^b and its fifth, B^b).

Audiovisual strategies in the music video

The music video for "Brennisteinn" was released in March 2013 to coincide with the unveiling of the *Kveikur* album. The video was directed by Andrew Thomas Huang, who has directed music videos for Björk, Thom Yorke, and others. The video's visual features align with the track's sonic characteristics to produce a compelling audiovisual whole.¹¹

The color scheme of the video is immediately striking. Everything is black and white, save for the piercing glow of greenish yellow: the color of sulfur, or toxic waste. The video opens on a barren wasteland, dark and ominous, with the lights of fires in the distant background. The air is thick with smoke or ash. The camera trails near the ground, where rivers

of boiling sulfur run across the rock. In the sky hangs a huge, yellow-glowing moon (or sun). As the video progresses, a narrative emerges: a group of people, wearing some kind of protective masks, carries a person wrapped in heavy ropes and places the figure on the ground beside a fire. The people then begin to frantically remove the ropes to reveal, at first, a mound of yellow-glowing rock, out of which emerges a man caked in rock and dust. Soon, more people rise out of the ground as well (see Figure 3).

The video's visual style and narrative draw upon the rhetoric of environmental apocalypse. The main narrative of the video is cross-cut with other sequences, including the band members performing, dressed in black. A key visual sequence in the video consists of a stone-like creature that resembles a medieval battering ram lunging forward to break free of its keep by crashing into a gate of some kind (2:11–38). After several lunges at the gate that coincide with the four musical attacks leading into the second verse, the battering ram finally breaks through its gate on the first beat of the first bar of the second verse. The way the music and images are synchronized in this sequence reinforces the embodied perception of the loud attacks as incidents of extreme physical force being exerted in short, explosive bursts. It also references a key event of *Ragnarök*, when the monstrous wolf Fenrir breaks loose from his bonds.¹² The battering ram eventually crashes into a sulfur-colored sun, evoking the myth of Fenrir swallowing the sun at *Ragnarök*.¹³ Musically, this sequence is accompanied by the two-minute coda of “Brennisteinn,” during which the voice (as well as any “human” instrumental gestures) has departed, and we are left with an eerie and inhuman soundscape.

Analyzing such apocalyptic visions in music unpacks different ways of imagining the causes, actions, and effects of a world out of balance. An artistic perspective, of course, can enable or influence engagements with a host of possible futures in the Anthropocene. Sergio Fava writes, “For something that does not exist, the end of the world has changed a lot in the last forty years” (2013, 86). During the cold war, the decisions and actions leading to the destruction of the world (through a nuclear apocalypse) was relatively straightforward. Fava argues that we are now facing a “new apocalyptic narrative”—that of climate change—that is far more complex and engenders entirely new imaginaries of the end.¹⁴

Surveying the recent surge of interest in ecological topics in contemporary fiction and film, Alexander Rehding sees “a pronounced sense of acute crisis” as dominating “an apocalyptic strain of environmental imagination” (2011, 409). Rehding even labels the apocalyptic mode a “master metaphor” of environmentalist cultural expression (*ibid.*). Yet, I would argue that Sigur Rós’s “Brennisteinn” is not characterized by an alarmist “sense of acute crisis” alone; instead, it plumbs the depths of the environmental apocalypse as a sublime aesthetic, allowing the listener to approach a sense of the beyond-human implications and time scales of the Anthropocene. The song welcomes the turbulence of an end to the Earth in preparation for a new beginning.

Gísli Pálsson’s notion of geosociality rearranges the relationship between humans and geology, and something similar occurs in “Brennisteinn.” There is the sonic treatment of volcanic activity, discussed above, as well as the narrative of the music video, where humans emerge from (and as) rock. The song lyrics play a part as well, as certain literary and



Figure 3. Screenshots from “Brennisteinn” music video.

rhetorical devices complement the music and video's blurring of lines between the geologic and biologic. The fragmentary lyrics rarely denote a subject, favoring a pregnant ambiguity. Consider the first line of the chorus, "Nú teygir sig og togar" ("Now [it] stretches and pulls"), where the reflexive pronoun "sig" might refer to the Earth itself, which becomes anthropomorphized as a living entity that "stretches and pulls." In the second verse, the lines "Í skinninu/iðar á" ("In your skin/wriggles a river") accomplish the opposite: a geomorphizing of the human. This blurring of the mineral and the biologic is portrayed as a rather violent process, with lines such as "Rennur blóð í æðum" ("Blood runs in the veins") and "Í liðamótum brakar" ("joints crack") emphasizing the more grotesque aspects of the hybrid being that emerges as the song's narrator, in line with the visual sequence in the music video that shows a human-like being emerging from the rock. The aesthetics at work capture an important aspect of the Anthropocene condition. As Timothy Morton points out in *Dark Ecology* (2016), the fact that the human species is now a geophysical force shaping the geology of the planet is a dark insight, but one that holds possibilities. If we acknowledge that humans are entangled with non-humans in a common planetary fate, we might discern new forms of attunement with the surrounding environment and develop new ethics and politics for our future coexistence.

Conclusion

In *Facing Gaia* (2017), Bruno Latour dwells on our inability to properly sense and react to the ongoing ecological crisis. One of his arguments concerns how the scientific worldview of Western modernity has "deanimated" the world, seeing all materiality as inert and passive objects in a world that is necessarily stable. Blind to the possibility of an unstable and trembling—that is, a living—Earth, such an outlook meets news of the ecological crisis with apathy. In Iceland, however, where the ground is quite literally trembling underneath one's feet—where the agency of Earth is clear to everyone to see—lies some potential. Here is where Pálsson draws on his experience of an eruptive and fracturing island to build a geosocial framework. And here is where Sigur Rós composes its music. The words used by Pálsson in his descriptions of Icelandic environments—"shifting," "vibrant," "impermanent"—fittingly characterize the musical style of "Brennisteinn," as described above. But where Pálsson's research operates at the discursive level, Sigur Rós mobilizes a geosocial sensibility using musical and audiovisual means—one that can complement and extend intellectual efforts.

As a concept, geosociality expands social reality downward, animating the subterranean. The music

of Sigur Rós adds a sonic dimension to this conceptual move. In its aesthetics, the music provides us with a palpable experience of the entanglements between the mineral and the social in a way that is simultaneously affirmative and critical: affirmative because it re-enchants reality, making it that much livelier, and critical because it disrupts engrained notions of humans as separate from the natural world.

Environmental relations matter differently in different places, and they are grounded in particular encounters and particular histories. Still, human interaction with the environment has too often been excluded from dominant models of cultural theory and research. Likewise, most methods of music analysis are poorly equipped to register and describe the complex features of how creative practices operate in and through particular natural environments. As presented here, certain unique aspects of Icelandic environments bring the potential for insights that resonate globally. As the ground shakes, then, so must our models for analysis shake, and I have tried to apply an analytical language drawn from the geosocial context of Iceland to uncover the ways in which musical and audiovisual aesthetics are registering the turbulence of human–environment relations there.

While seismic instability may be more relevant to certain locations than to others, we are all living in turbulent environments now, with floods, droughts, hurricanes, and forest fires increasing in their magnitude and frequency. This is why research on music and culture must acknowledge such factors. We can no longer get away with a concept of culture that stays "on the (Earth's) surface."

Notes

1. *Eyjafjallajökull* translates as "island mountain glacier"; it is named either for its distinct, round shape or for the fact that it is visible from the Westman Islands archipelago (and is therefore the islands' mountain).
2. The Anthropocene as the name of a new geological epoch was first proposed by Paul Crutzen in 2000. The Anthropocene narrative has since been criticized for inscribing an "Age of Man" that aggrandizes human beings as masters of the Earth (Malm and Hornborg 2014). The term is also problematic in its view of humans as one homogenous totality, erasing any and all differences and power relations. Dipesh Chakrabarty (2009) is among those who have questioned the ethics of thinking in terms of species, yet he ends up endorsing the label as a necessity. For a thorough discussion of the term and its consequences for social and cultural theory, see Haraway et al. (2016).
3. Various approaches to music and the environment are grouped together under the heading of ecomusicology. For a state of the art collection of essays, see Aaron S. Allen and Kevin Dawe (eds. 2016).

4. After the Askja eruption in 1875, which for many of the emigrants constituted the “final nail in the coffin” after a long period of difficult climate conditions on the island, there were talks at the governmental level of relocating the entire nation of Iceland to Canada. In the end, 25,000 Icelanders emigrated across the Atlantic to found a short-lived free state (the “New Iceland Colony”) in Manitoba (Matthiasson 1989, 158–162).
5. Many volcanoes outside of Iceland have been considered entrances to hell, including Etna in Sicily. For a wide-ranging cultural history of the volcano as it figures in myth, art and literature, see James Hamilton (2012).
6. There is a post-colonial aspect to Pálsson’s reading of Euro-American intellectual history and its neglect of the geologic. He points out that while smaller quakes, landslides, and sinkholes occasionally garnered attention over the centuries, major volcanic activity represented rare and exotic occurrences that happened “over there,” in other parts of the world, so Euro-American scholars did not have to account for these agencies and their role in social formations.
7. The work of the volcanic demon Surtr is still visible in place names in Iceland, such as the unique volcanic caves at Surtshellir (“Surtr’s cave”). And when an underwater volcanic eruption created a new island off the coast in 1963, the newly formed land was given the name Surtsey (“Surtr’s island”).
8. For a breakdown of common popular song forms, their emergence and migration across popular music genres and styles, see Moore (2012, 80–89).
9. The spectral analysis was performed using the command “mirspectrum” in *MIRtoolbox* version 1.7.2 (Lartillot and Toivainen 2007).
10. The band’s interest in the apocalyptic on *Kveikur* underpinned its curation of the music festival “Norður og Niður,” held in Reykjavík in December 2018. “Norður og Niður” is an Icelandic idiom that directly translates as “north and down” but is used in the sense of “everything is going to hell.” The festival logo was decidedly goth in the way it alluded to occult symbols without referencing any specific symbol.
11. The “Brennisteinn” video is available on YouTube: <https://www.youtube.com/watch?v=Oc6zXSdYXm8> (accessed 2 November 2017).
12. A repeated refrain in *Völuspá* (found in stanzas 44, 49, and 58) reads “festr man slitna,/en freki renna” “The bond will burst,/and the wolf run free.” See Lindow (2001, 111) on the role of the wolf at *Ragnarök*.
13. The way the visual sequence featuring the battering ram is edited according to musical cues is one example of what Mathias Bonde Korsgaard terms “the musicalization of vision”, which he notes as one of the defining aspects of the music video as a genre (2017).
14. Research on apocalyptic visions in popular music has generally focused on American counterculture figures of the 1960s, including the carnivalesque use of apocalyptic scripture in Bob Dylan, The Doors and Nick Cave (Boer 2012; Ingram 2010; Gilmour 2004). Joanna Demers (2013) has studied environmental apocalypse as a topic in the ambient drone genre.

Notes on contributor

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