

The Soundscape of Burning Man

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Abstract

The Burning Man Festival, an annual art festival in the Nevada Black Rock Desert of the Western US, has been going strongly for over 20 years, and has grown immensely since its humble beginnings in 1986. In the last few years, the event has reached a population of well over 50,000 people, featuring hundreds of performances, and thousands of works of art in all media and on all scales imaginable. A party in the desert for some, a way of life for others, the festival and the temporary city that supports it is a remarkable human enterprise, thriving on communal effort and participation, a gifting economy, radical self-reliance, and radical self-expression. The unique soundscape of Black Rock City, Burning Man's ephemeral home, with its multitude of sonic art works, musical performances and immersive environments, offers some of the most unusual and interesting sonic experiences for the week that it exists. This study looks at the evolution of this unique soundscape through the course of the event, from its beginning as an uninhabited desert, to the gradual construction of the city by the inhabitants, to the height of its celebratory completion as the tenth largest city in the state of Nevada, its ultimate destruction with the burning of the central art structures, and the leave-no-trace cleanup process that follows. Throughout the event, we witness a ritualistic ebb and flow of sound as the citizens of the city celebrate radical self-expression in remarkable ways: hot days of construction and exploration, the city-wide celebration of sunset, the festive all-night dancing, the exhausted and restful morning, the exuberant burning of the man, and the contemplative and quiet burning of the temple. Our study analyzes the soundscape across the vast space of the event, looking at its daily and week-long evolution, through field recordings, discussions with participants, and personal observations. The paper is derived from observations over the previous eight years of the event, as well as a sound journal based on Burning Man 2011.

I. What Is Burning Man?

Burning Man is a multifaceted event that serves many different purposes for many different groups of people. It has been referred to as a week long "celebration of art, community, and fire,"¹ a "New Age techno-fest,"² and "glorious Hell on earth,"³ among many other descriptions. "Caveat," the pseudonymous author of several posts on the Burning Man blog, reduced it to this: "Burning Man is also about a kind of epic confusion that is good for the soul."⁴ Burning Man has the power to delight, confuse, confound, and offend just about everyone who attends, and it does so without any specific "script" or "program."

The event occurs annually over an eight-day period that concludes on the first Monday of September (Labor Day in the United States). Begun as a small beach party in 1986, it has taken place in the Black Rock Desert of northern Nevada, about 190 km north of Reno, since 1991. "Black Rock City," the foundations of which are planned and provided by the Burning Man Organization (funded through ticket sales), is literally built by the participants as they arrive and begin to populate the streets with structures, shelters, theme camps, art installations, and a variety of community services. In accordance with some of the Ten Principles of Burning Man, there is no commerce, and a "gift economy" is practiced. Participants also agree

to the Principles of radical self-reliance, radical self-expression, radical inclusion, communal effort, and an expectation of universal participation, among others. For a detailed description of the event and its history, the Ten Principles, and information about the organization itself, see the Burning Man website.⁵

Although no money is exchanged at Burning Man, much time and money is spent preparing for it. As participants ourselves over multiple years of attendance, we can attest to the immense preparation and sacrifice the event requires. Indeed, we acknowledge our role in writing this paper as that of participant-observers, invested in the culture and community of the event even as we attempt to explicate aspects of the experience for a larger audience.

The population of the city has increased almost every year, surpassing 50,000 in 2010, and causing the event, for the first time in its history, to cap ticket sales in 2011. Accordingly, Black Rock City has evolved from an encampment of a few thousand participants into a fully-functional metropolis boasting its own post office and zip code (89412), several radio stations, at least two daily newspapers, a public works department, and its own non-professional police force – the Black Rock Rangers – who act as an interface between Burning Man participants and

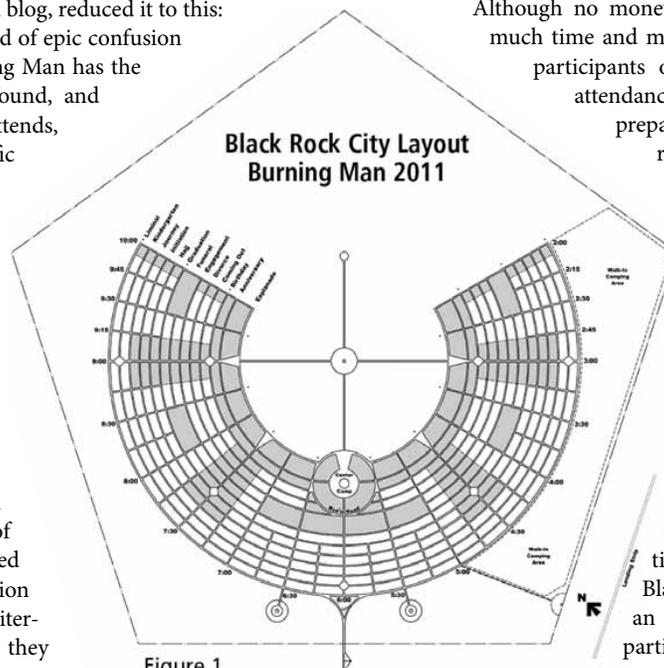


Figure 1

state and federal law enforcement agencies. Due to another of its Ten Principles, Burning Man is the largest leave-no-trace event in the world.⁵ As a locus of art, music, performance, dancing, and widely varied manifestations of alternative culture and celebration, it also has a unique and extremely fascinating soundscape. Below we will discuss the soundscape of Burning Man, in terms of its primary features, its function as map, calendar, and clock, as well as some general observations about the role sound plays in the lives of its residents as the event unfolds in time and space.

2. The Soundscape of Burning Man

The Black Rock Desert is a vast expanse of the Great Basin in northern Nevada that was once the bed of Lake Lahontan during the Pleistocene epoch, and is now a perennial dry playa between the Jackson and Calico Mountains, a 2600 square-km area northeast from the small town of Gerlach, about 1,191 m in elevation. The Desert is bisected by the Black Rock Mountains, which frame Black Rock City's horizon and play a prominent role in its daily activities – a critical moment is marked each evening when the sun descends behind Granite Peak and the air temperature begins to plummet. In addition to hosting Burning Man, the desert is a mecca for rocketry enthusiasts, and a favorite location to attempt to break the vehicular land speed record, second only to the Bonneville Salt Flats some 600 km to the east. Otherwise, it is a mostly-uninhabited desert wasteland that is hostile to life. The ground is hard, crusty, crack-ridden clay with a saline, mineral crust, free of vegetative material, and with large areas that are perfectly flat. Some claim that it is “the largest flat piece of land on earth.”⁶ The cracks in the desiccated ground form a complex, irregular polygonal pattern. Sound radiates with few reflections, since there are literally no geological features, other than the flat ground itself, for many kilometers in all directions. This is a boon for radio broadcasting and transmission artists – Burning Man's plethora of radio stations broadcast well beyond the borders of the event during the week of their charter.

The soundscape of the event location, about 25 km northeast of the town of Gerlach, just off of Nevada's County Road 34, is normally very subdued. There are few plants, birds, insects, or humans living nearby, only the occasional sounds of traffic on the nearby road, and high-flying aircraft. The wind races across the playa unobstructed, raising great plumes of dust from the hard-packed ground. Once participants arrive and begin constructing the city, things change. Light construction sounds emerge, along with arriving vehicles, gasoline-powered generators, loud voices, amplified music from loudspeaker systems large and small, and an increasingly dust-filled wind. As structures change the path of the wind, the sound of the city begins to emerge, using both its physical structure and its content to define listening paths in the dust. The Burning Man soundscape emerges once the population and building surpass a critical point, and begin to resemble and function like a city.

2.1 Primary Features

While it is difficult to characterize the soundscape of Burning Man, there are several sounds that have consistently assumed prominent roles during the past ten years:

- Amplified music
- Fireworks (though formally banned, they nonetheless occur regularly)
- Air horns
- Bursts of flame from a variety of jets and cannons
- Large fires
- Megaphones
- Gasoline-powered generators
- Bicycle-related sounds
- People talking, laughing

The first item, which is far more complex than it may seem at first, is the most essential to understanding the sonic fabric of the city. It consists primarily of electronic dance music multiplied and spread across an enormous, flat space. Beat-oriented and heavy in the low frequencies, all genres of DJ-driven dance music can be found in Black Rock City, with an emphasis on psy-trance and, in recent years, dubstep. This music is played throughout the city, at a variety of volume levels, throughout the day and night. It emanates from mobile sources known as “art cars” or “mutant vehicles” – huge industrial and public-transit vehicles converted into stages or clubs – as well as hundreds of individual encampments dedicated to public entertainment and celebration. At its peak, between midnight and 3:00 AM, the city becomes a sound-mass of thumping, ambient confusion. As one traverses the city at that time, the soundscape, more than any other sensory experience, communicates the massive size and diversity of the city, as well as the passion and energetic celebration of its inhabitants.

Most of the prominent elements from the list above can be heard throughout the city at all times of day and night, but the emphasis, demeanor, and overall sound level of the soundscape varies widely with time and place and is occasionally marked by unmistakable events. The Black Rock City soundscape thereby harbors a wealth of information regarding one's location in both space and time that can be easily gleaned by an experienced citizen, some of which is available even to relative newcomers. In this section we will attempt to describe the most salient features of the soundscape's spatial and temporal structures, while speculating upon the origins and consequences of these self-organizing phenomena.

2.2 Spatial Organization: The Burning Man Soundscape as a Map

Black Rock City's layout consists of a two-thirds circular grid of streets, arrayed around the central point of the Burning Man effigy (See Figure 1). Ring streets (after the innermost street, called the Esplanade) are named alphabetically according to an acoustic that changes with the year's theme, while radial streets are named according to their clock positions, e.g. 2:00 or 5:30. Addresses of particular camps are commonly given in terms of these coordinates. For example, in 2011 our camp was placed at 2:45 on Anniversary. Radial streets span from 2:00 to 10:00, and ring streets have extended as many as ten blocks behind the Esplanade.

Within the circle of the Esplanade, there is an open space dotted with dozens upon dozens of art installations. A large plaza can be found at 6:00 and Esplanade, surrounding a “Center Camp” structure. Medium-sized plazas are embedded in the city at 3:00 and 9:00, and smaller plazas can be found in numerous locations. The “temple,” a secular structure whose architecture changes drastically each year, is located in the 12:00 direction, opposite Center Camp. Beyond the temple is a large area of open desert commonly referred to as “deep playa,” also dotted with a multitude of art installations and other isolated structures, continuing until the outermost border of the city, the “trash fence,” is reached. This layout reflects many years of refinement. Listening paths and other lines of desire have played a key role in this development, resulting in a city that is, in part, shaped by sound and, accordingly, can be navigated and understood through listening.

The most highly trafficked and interactive camps are placed at the Esplanade and plaza areas, imparting a “residential” and “public” sound to different areas. This distinction is heightened at night (further discussed in the next section). In more residential areas, there may be some local small sound systems playing music, or loud hums from generators, but generally these areas are much quieter than other parts of the city due to the surrounding, noise-blocking structures and the tendency of sound to radiate upwards from the hard surface of the desert.

The length of the 2:00 and 10:00 radial roads, facing the deep playa, are districts designated for the loudest sound installations, and are the locus of many DJ performances and a fair portion of the city's nightlife. Proximity to these roads guarantees a higher level of ambient sound from electronic music sources through much of the day and all of the night. By contrast, an area designated "Hushville", located in the city's residential area, disallows its residents from operating sound systems, gasoline-powered generators, and other noisy devices. Adjacent to Hushville is "Kidsville", organized by and for parents bringing small children to the city and wanting to maintain an area that is removed from the more licentious, graphic, and noisy areas elsewhere. In 2011, the Kidsville/Hushville area consumed two enormous city blocks, between the 5:00 and 5:30 radials, and the "D" and "F" rings.

Perhaps the most sonically interesting portion of the city is the deep playa. In this large empty area, the sound being hurled out into the desert from all other points in the city combines into a complex soup far too dense and complicated to readily dissect. Distance eliminates most of the high frequencies, and disperses much of the power of the non-directional low end. The occasional art car, equipped with a mobile sound system, can emerge from the soup and dominate it for a while as it passes by. But the unique, vibrant, and utterly complex noise floor remains a constant, ready to absorb any temporarily differentiated sound back into its happy chaos. In the deep playa, especially at night, one feels compelled to listen to the soundscape's slow shifting, which is more of an ongoing reorganization than an evolution, and become lost in one's awareness of its simultaneous enormity and quietness. Consequently, the most shocking and eerily gratifying sounds in deep playa can be ones that are small but nearby, like a zipper or a bicycle bell, that trigger a sudden collapse of scale, a rapid return to local listening.

Traversing Black Rock City's diverse territory demonstrates the communicative power of the distinctions between its regions, as the nature of an area being entered often announces itself to the ear before the eye perceives a change. In this way, consciously perceiving the soundscape serves to increase the circumference of one's awareness of one's surroundings beyond the present visual horizon in a

way that is coherent, informative, and useful in navigation. The entry gate is filled with the sounds of joyful greetings and bells being rung by first-time visitors. The city's bustling Center Camp is filled with the commotion of many boisterous conversations and small groups of musicians or spoken word performances. The temple features a hushed mixture of quiet voices, expressions of grief, and occasionally a soft vocal or instrumental performance. Artworks with bells or chimes announce themselves across distances in high winds. A 2010 performance piece called "Ein Hammer" dominated the evening soundscape of the inner playa with a maniacal amplified voice. Within earshot of our camp in 2011, the clatter of a wheel of fortune continually identified the center of a nearby plaza. As the city is built and soundmarks materialize and become familiar, the sonic identity of one's neighborhood rapidly solidifies. While this is hardly a quality unique to Burning Man, its pervasive availability and its prominence within an environment that is inherently so transient are unexpected and remarkable.

2.3 Temporal Organization: The Burning Man Soundscape as a Clock

The sun rises in Black Rock City around 6:00AM, and sets around 7:00PM. In the mid-afternoon, the temperature can rise as high as 45 degrees Celcius, while at night it can fall as low as 5. Some of the most universally quiet moments across the city occur during the hottest part of the afternoon, between 1:00 and 4:00PM. While it is never impossible to locate a place to hear dance music, a majority of the city's sound systems are quiet or operating at lessened volumes during this time. The inner playa is still full of activity, including some vehicles with mobile sound systems, but no more so than the typical neighborhood street anywhere in the city's residential areas. There is a notably muted quality to the overall soundscape.

With the descent of the sun toward the horizon, the heat becomes noticeably less oppressive and the citizenry's ability to work and play returns quickly. Vehicle traffic increases, and food preparation commences in many camps. At "sun-mountain time" – the moment when the sun disappears behind the mountains – there is a daily roar of celebration that passes through the city, heralding the beginning



Another Door



Thunderbridge

of nighttime with cheering, air horns, sirens, and other noisemakers. As the temperature plummets, the city's nighttime soundscape blooms. By 9:00PM, the city has settled into a new sonic pattern, with the residential districts emptying out or shutting down and becoming virtually silent save the distant sounds of celebration, while at the same time the sound of the Esplanade and the inner playa picks up, the large dance camps crank up their volume and play more aggressive music, and the deep playa fills with increased noise. The sound levels in these areas rise until around midnight, and remain at their highest point until 4:00AM or beyond, even as the residential areas become hushed, filled with empty tents, or sleeping campers.

The first hints of color in the sky typically coincide with a shift towards mellower, more ambient music, and the volume slowly decreases, though dance beats continue to be heard throughout the morning while the temperature remains low. The daylight hours contain a broader diversity of musical styles than the nighttime's emphasis on dance music, and that diversity begins to emerge with the sun. Around noon, the cycle completes itself with the return of intense heat and the temporary abatement of the multi-musical soundscape.

The daily cycle has also given rise to a number of activities that have become quasi-"traditional", and which one can use to mark the passing of time. The cheering at sun-mountain time may be the most widely practiced example, but there are many more that are specific to certain neighborhoods or art pieces on the open playa. For many years, the 3:00 Plaza's Hokey Pokey Camp has hosted a public-participation rendition of its namesake dance at exactly noon throughout the festival. The procession of lamplighters jingles around the city's main thoroughfares each evening just before the sun sets. Camps in the vicinity of the Deathguild each year become familiar with the "Two men enter, one man leaves" speech from the film *Mad Max Beyond Thunderdome*, which marks the start of the evening's activities at their own Thunderdome, a re-creation of the post-apocalyptic movie's dueling chamber. Afternoon calls of "Otter

pops!" announce the arrival of a group of participants handing out the frozen treats at the peak of the day's heat. Most neighborhoods have some sort of timed occurrence, whether planned or naturally resulting from changes in use and participation throughout the day. Through a familiarity with their surroundings, participants quickly develop an intuition about the precise time of day that comes as much from a reading of the sounds surrounding them as it does from the position of the sun and the sensation of temperature.

2.4 Temporal Organization: The Burning Man Soundscape as a Calendar

While the general outline of daily sound evolution unfolds across Black Rock City's expanse, other qualities of the soundscape evolve over the course of the week, and serve as aural reminders of the week's progress. In the days leading up to the official opening of the event, many members of placed theme camps are allowed into the city early to begin the construction and decoration of their structures. Even on these days, the sound of music is never absent for long, but the sounds of wind, vehicle traffic, generators, and the use of electrical and hand tools predominate. The morning and evening periods, where natural light intersects with reasonable work temperatures, are most active. At night, many camps use generators to power floodlights and continue their labors.

By 12:01AM on Monday, the official start of the event, many aspects of the cyclical soundscape described in the section above have already come into focus. Added to them is the frequent tapered whirr coming from the engines of slowly passing cars, trucks and recreational vehicles that are finding their homes – the universally observed speed limit in Black Rock City is 5 miles per hour (8 kph). A new roar of construction and physical labor commences as the newcomers begin to build their encampments. Work in the desert can be exhausting, and while there are dance parties already in action by Monday evening, they lack the earnestness of those in the coming days.

By Tuesday evening, the city sounds like it is in full swing. Generally, more than 60% of the population has arrived and set up their quarters, and the focus has shifted from unpacking and construction to exploration and celebration. This can be noticed in the increased volume and duration of the evening's wash of music, and the increased volume and energy of the noise floor, as well as the diminution of the sound of passenger vehicles. The city's intensity will increase incrementally each night until Saturday, when the ceremonial burning of the Burning Man effigy brings the long crescendo to its catharsis.

Starting as early as Wednesday night, a new sound can be heard on the inner playa between 8:00PM and 12:00AM – the sound of other major effigies and smaller artworks being burned in their own ceremonies. The sound from these events manifests both as the distinctive low rumble and high crackles of a bonfire, and the shouts and cheers of the participants who observe it. Dozens of major sculptures are burned in this way over the next three evenings. In 2011, a ring of large effigies built by community groups hailing from places across North America, Europe, and Australia, and installed in a circle surrounding the man, were burned simultaneously on Thursday night, dramatically altering the inner city's soundscape for an hour or more. On Friday night, the shouts and cheers accompanying the combustion of an enormous Trojan Horse sculpture could be heard even in distant neighborhoods.

As the city's population swells, its culture inevitably shifts as well. Participants arriving on Friday have not experienced the construction of the city, and they come more as tourists than residents. Sometimes their behavior reflects an ethos disconnected from the event's Principles. Not surprisingly, this difference can be discerned in the sounds they produce, and, while subtle, this new color in the sonic fabric is perceived and remarked upon by participants every year.

The Saturday night burning of the man is preceded by a ceremony of hundreds of fire performers and musicians (primarily drummers) known as the Fire Conclave. The micro-soundscape of this event is among the most bewildering and intense to be found in the city at any moment, as a significant portion of the city's population crowds around the safe perimeter, and a majority of the city's mutant vehicles, many with sound systems fully cranked up, crowd in behind them, forming a noise-ring of unbelievable complexity and high noise levels. Following the Conclave performance, the burn begins with a lengthy display of fireworks that gradually evolves into an 30+ meter tall bonfire. When the structure of the man falls, many members of the crowd begin a spirited race around the burning structure, while others rapidly disperse and wander out into the night's celebrations, which are the most intense of the week so far.

Sunday's soundscape dramatically reverses the trend that has been progressing all week, as the sound of de-construction and packing up begins in the morning and dominates the soundscape throughout the day. Familiar elements persist, but with a strongly shifted emphasis. By Sunday evening, as much as 20% of the population has already departed. The final structure to be burned each year is the temple, an event that reflects the somber and introspective nature of the structure, and the function it serves in the life of the city. While the burning of the man is an unparalleled bacchanal, the tens of thousands of people gathered at the temple burn are almost universally silent. Distant dance camps shut down their systems, and the mutant vehicles turn off their motors. The sounds of the enormous fire – in 2011 the temple consisted of six enormous wooden towers, including one over 40m tall – can be heard clearly across and beyond the gathered crowd. A different, more intimate sort of catharsis is reached through collective respect and restraint.

The event officially ends at noon the next day, and the phenomenon referred to as "exodus" has its own, distinct soundscape: a miles-long column of idling vehicles, straining back towards the overburdened two-lane highway.

3. Conclusion

Black Rock City embodies an ostensible oxymoron – the impermanent metropolis. Each year presents an opportunity to change anything and everything about the city. Obviously, since the city is literally constructed by its participants, this change is inevitable, but there are aspects of the city that return annually in some form, albeit retooled around fresh ideas, often related to the year's theme. In terms of sound, we do tend to choose a loud city each year, and if anything, the city has gotten louder as it has increased in size. However, structural and scheduling decisions made by the event's organizers reflect an ongoing awareness of sound's role in the city's life, and seek to mitigate its potentially detrimental effects even as they cultivate and encourage the noisy celebration that is, for many, the point of the event. While more traditional metropolitan settings must confront their own history any time a change is contemplated, Black Rock City provides us with an urban model of annual refinement, a template that is as fascinating and instructive as it is unique.

Endnotes

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