



Excerpt from *Limits of Hearing. Noise and the Acoustics of the Political* (Grenzen des Hörens. Noise und die Akustik des Politischen), Bielefeld: Transcript Verlag 2021

## 6. The Auditive: Political Acoustics

*What rescues them from the darkness of night where they would, and still should perhaps, have been able to remain, is an encounter with power; without this collision, doubtless there would no longer be a single word to recall their fleeting passage. The power which lay in wait for these lives, which spied on them, which turned its attention, even if only for a moment, to their complaints and small tumults, which marked them by a blow of its claws, is also the power which instigated the few words which are left of those lives.*

Michel Foucault<sup>1</sup>

### 6.1. Topography of the Auditory

The soundscape is an expression of a doxa of hearing. It draws dividing lines between good and bad sounds, between humans and nature, between social groups with fine or coarse hearing. Soundscape research tends to follow an idealized and idealizing concept of landscape, closing its ears to the acoustic effects of domination. As a pastoral sonic scenery, the soundscape represents, first, the aesthetic-symbolic perception of an idealized and

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<sup>1</sup> Foucault 1979, p. 80. What interested me in this passage from *The Life of Infamous Men* is the word *tumult*. In the German translation of the text it is *Lärm* (noise), in the French original *vacarme* (noise, racket) – the idea that from the perspective of power or authority, the voices of the subaltern, the proletariat or infamous people are perceived as noise or a meaningless racket that can only gain intelligibility by entering the archives coded by power.

harmonious totality, second, a geographic demarcation, and third, an administrative unit. A landscape can contain people and social structures, and it is the result of human activity, but as a concept it stands outside of the political. People appear in a 'cultural landscape' only in the abstract, such as when history, economics, and traditions have produced particular landscape designs. An acoustic example from European history is the territorialization of land by church bells, which are commonly heard and understood as a picturesque feature of a certain culture and not as a means of power. 'Hearing' here is not to be conceived as the physiological process of perceiving sound. What is heard and how it is heard, to what standards of evaluation it is subjected and what remains outside of perception results from a social context. This also means that different groups, persons, and bodies each have a different auditory perception and that it is in their relations and interactions that hearing and the audible are first constituted as social facts (and thus neither an ideal-typical audible nor an ideal way of hearing exists). In *The Audible Past*, Jonathan Sterne writes:

The fundamental problem of social thought is to explain the relation between the personal and the social. For too long, scholars of sound have ignored the two-way connection between the personal and the social, opting instead to deduce social reality from ossified descriptions of human experience. It is no accident that Marx begins one of his earliest published discussions of communism with the argument that the history of the senses is essential to the history of society. (Sterne 2003, p. 348)

To which of Marx's writings Sterne refers is not noted. A hint can be found in the *Theses on Feuerbach*, published posthumously by Friedrich Engels in 1888, in which Marx presented his materialistic theory of society and history in bundled form. Regarding the correlations between sensory and social factors, these eleven theses can be edited as follows:

The chief defect of all hitherto existing materialism [...] is that the thing, reality, sensuousness, is conceived only in the form of the object or of *contemplation*, but not as *sensuous human activity*, practice, not subjectively. [...] Feuerbach, not satisfied with abstract thinking, wants contemplation; but he does not conceive sensuousness as practical, human-sensuous activity. [...] [T]he human essence is no abstraction inherent in each single individual.

In its reality it is the ensemble of the social relations.

Feuerbach, who does not enter upon a criticism of this real essence, is consequently compelled:

To abstract from the historical process and to fix the religious sentiment as something by itself and to presuppose an abstract – isolated – human individual.

Essence, therefore, can be comprehended only as 'genus', as an internal, dumb generality which naturally unites the many individuals. (Marx 2002, p. 1)<sup>2</sup>

Such an abstract generic being in the sense of Feuerbach, assuming a natural commonality connecting humans, would be the ideal inhabitant of the natural soundscape: equipped with a natural ear, this person would listen to the harmonious sounds of a natural habitat and, similar to a gardener, devote her- or himself to its care and maintenance. No perspective on social relations can be derived from such a conception. To the extent that it addresses social reality at all, it does so under conditions of "ossified descriptions of human experience" or starting from a "mute unity that naturally connects the many individuals". For Marx, perception is a subjective sensual activity or practice and thus something concrete. The object of perception or the object of hearing may in each case be general, generalizable, and abstractly the same for all perceiving subjects, but the practical sensuous processes of perception are not. This disparity of the sensual is at the same time the basis of any exchange about perceptual contents and thus of the practical production of a sensible meaning. From a social and historical point of view, the perception of people, persons, individuals or subjects is not a static matter, it is subject to changes, modulations and recoding. Walter Benjamin has summarized this circumstance in a concentrated form, also quoted by Sterne: "[D]uring long periods of history, the mode of human sense perception changes with humanity's entire mode of existence." (Benjamin 1968, p. 222). Or, put into the form of a slogan: *The sensory is political*.

The outlines of these politics of the sensory can be traced both on the basis of historical change along diachronic time axes and analyzed in a synchronic and current topography. If we speak of a spatial division of the sensory or of individual sensory registers from the perspective of the political, the question arises as to which nomenclature should be used to describe them. Landscapes, areas, territories, precincts, regions, zones, domains, planes and fields originate from different disciplines and knowledge formations. They form intersections between geography and geometry, between biology and politics. They form synonyms, refer to different types of partitioning, and open up a disparity of definitions and metaphors. An area or surface offers a spatial extension on which enclosures and demarcations can be made – which always

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<sup>2</sup> Cf. <https://www.marxists.org/archive/marx/works/1845/theses/theses.pdf>

includes the possibility of transgressing these boundaries. They constitute the ground or medium on and in which bodies can reside. On the ontology of the areal, Jean-Luc Nancy writes: "'Areality' is an obsolete word that denotes the essence or property of an *areal* (*area*). As it happens, the word also lends itself to implying an absence, a lack of reality, or a tiny, light, floating reality: that of the distance that locates a body or within a body." (Nancy 2003 p. 40). The distance that a body occupies from another is that which locates it: on a surface, in a space, within an areal. Distance as a condition of the possibility of perception is that which tends to not be perceived itself. A distance is real, it can be estimated or sensed, but the distance between several bodies is, according to Nancy, *a-real* - perhaps measurable in spatial distance, but at the same time small, light, and floating. It is the basis of perception or its medium and thus permeated by an irreducible noise. All senses are based on a distance – including the tactile, because touch *touches* the body,<sup>3</sup> it does not penetrate it (if it did, it would be an injury). What can penetrate the body to a certain degree are sound waves, provided that they were able to propagate in the interspace of the distance before. In the acoustic phenomenon of body or bone sound, this distance becomes vanishingly small, but there is still a transmission from one body to another, an interspace that had to be crossed. Condition of this transmission is a threshold that must be bridged. The sound waves must pass through the path of the transmission mechanisms and the various media that make up the auditory system: Eardrum, ossicles, lymph, hair cells and nerves that turn a variation in air pressure into something heard. All registers of the sensual are embedded in the *areality* and therein form different modes of traversing and bridging their respective distances to each other and locating the bodies in their relations.

In a society, the distribution of bodies becomes a question of power. Certain territories are demarcated, occupied and defended against intruders, access is controlled, expulsions are carried out, movements in certain directions are channelled or prevented. This is where the power-political terminology of spatial expansion, with its synchronous orientation to geography, politics, and anatomy, is to be located: a territory is a tract of land or an area over which a ruler commands. In German, the words for landscape, society, and lordship (*Landschaft*, *Gesellschaft* and *Herrschaft*) share the same suffix, a reference to abstract concepts of cooptation. The perimeter of a dominion or an administrative unit is circled as a

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<sup>3</sup> In German, there is an untranslatable difference between *berühren* (to touch) and *anrühren* (to touch lightly, to lay a finger on somebody, to move someone emotionally).

district. Region, from the Latin *regio* for 'direction,' 'boundary,' or 'area,' can denote both a domain and the divisions of anatomy into specific body regions. Areas and planes can mean both geographic and geometric subdivisions of space. All of these terms share the modes of subdivision and enclosure: fencing, incorporation, surrounding and limiting, subdividing into sections and zones.

Territory can be described as an area from the viewpoint of power. A territory is formed by its occupation and marking – a previously neutral area is territorialized. The *areality* in the sense of Nancy emphasizes that aspect of the areal/territory that bodies stay there and relate to each other, e.g. taking a distance or finding each other. Also, power acts towards the bodies, it has an effect on them. As they are absent or present, they can be gathered or displaced. The formation of territories or territorialization draws on those sensory registers that can sense a spatiality beyond the immediate proximity of the body: the olfactory, the auditory, and the visual. The demarcations made in these registers form a kind of 'biopolitical'<sup>4</sup> continuum whose sphere of action ranges from the demarcations made by animals to form their territories to the divisions of urban space into specific neighbourhoods or zones. The modern and abstract territories, such as nation-states, are usually associated as visually bounded: areas delineated by lines on a map, as visual abstractions of spheres of influence, or as marked by concrete walls, fences, and border posts. The territorializations of the social often run along concrete (or better: accessible to concrete perception) boundaries and are not solely visually encoded. To the extent that an area becomes unclear, other senses take the place of the visual. Luigi Russolo had illustrated the primacy of auditory orientation on the battlefields of World War I, Marshall McLuhan's media theory discovered a "step towards non-visual and auditory space" in the technological upheavals of the 20th century, and sound design in some respects responds to a situation in which orientation can only be achieved by acoustic means.

Regarding acoustic territories, Brandon LaBelle writes: "Acoustic space thus brings forward a process of acoustic territorialization, in which the disintegration and reconfiguration of space [...] becomes a political process." (LaBelle 2011, p. xxiii f.). Territorialization in this sense can be understood as the drawing of boundaries within previously unstructured or differently structured areas and spaces. Similar to how animals, especially songbirds, mark out their territories through sound – acoustically occupying a huge area compared to their body size –,

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<sup>4</sup> Biopolitics in this instance should be understood as a term for a continuum between biological and political strategies of demarcation and is only loosely connected to Foucault's concept of biopower.

the auditory can mark a presence or claim far beyond the space occupied by bodies in the sphere of the social. The comparison with an animalistic sound production should not put this form of territorialization close to archaic cultural techniques. Acoustic territories form the audible background of social environments and in some cases represent the spearhead of current technological development.

This work aims at sketching the outlines of political acoustics; in its context the term 'the audible' has been used several times to denote the totality of perceptible sound events. According to its tradition and terminology, acoustics as a general science of sound is rather focused on the physical and biological aspects of the audible. Acoustics belongs to the vocabulary of natural sciences, and the use of the term establishes a metaphorical proximity to their fields of application. If the audible is to be grasped under conditions of power, the term *auditory* proves to be more appropriate: the word already poses a question of power in its etymology. The Latin *audire* can be translated as 'to hear', 'to listen' or 'to sound', but it also contains the nuances of 'to interrogate' and 'to obey'. Thus, an etymological series can be formed: Hearing, obeying, obedience (in German: *Gehör, Gehorsam, Gehorchen*). Authority must first make itself audible with a loud voice, the command that is to be followed must be pronounced in order to be heard and obeyed. Power, understood as a purposeful force, must meet its addressees. The command is brought to the outside, it bridges the distance between the bodies and penetrates into its recipients.<sup>5</sup> This idea coincides with what Michel Foucault wrote about the microphysics of power:

First of all, it is necessary to get rid of a very widespread thesis according to which, in our bourgeois and capitalist societies, power has denied the reality of the body in favour of the soul, of consciousness, of ideality. In reality, nothing is more material, nothing is more physical, more corporeal than the exercise of power. (Foucault 1976, p. 107 f.)

The auditory denotes the audible under conditions of the political, i.e. as a socio-acoustic field in which power and resistance unfold. A concise definition of power, which assigns it a decentralized system of coordinates in the social field, was elaborated by Foucault in *The History of Sexuality*:

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<sup>5</sup> In *Crowds and Power*, Elias Canetti described this process of penetration as an injury. The command leaves a foreign body in its recipient, causing a kind of incurable inflammation: "Every command consists of momentum and sting. The momentum forces the recipient to act, and to act in accordance with the content of the command; the sting remains behind in him." (Canetti 1978, p. 305)

It seems to me that power must be understood in the first instance as the multiplicity of force relations immanent in the sphere in which they operate and which constitute their own organization; as the process which, through ceaseless struggles and confrontations, transforms, strengthens, or reverses them; as the support which these force relations find in one another, thus forming a chain or a system, or on the contrary, the disjunctions and contradictions which isolate them from one another; and lastly, as the strategies in which they take effect, whose general design or institutional crystallization is embodied in the state apparatus, in the formulation of the law, in the various social hegemonies. Power's condition of possibility, or in any case the viewpoint which permits one to understand its exercise, even in its more 'peripheral' effects, and which also makes it possible to use its mechanisms as a grid of intelligibility of the social order, must not be sought in the primary existence of a central point, in a unique source of sovereignty from which secondary and descendent forms would emanate; it is the moving substrate of force relations which, by virtue of their inequality, constantly engender states of power, but the latter are always local and unstable. [...] [Power] is the name that one attributes to a complex strategical situation in a particular society. (Foucault 1978, p. 92 f.)

This description of power refrains from deriving itself from a visually connotated center. It is not about a 'sun of sovereignty' whose rays form a clear image of societal power relations. The sun is supposed to function as a guarantor of stability and centering for the theories and discourses in which it appears, just as Derrida highlighted its function in the systems of metaphysics and metaphors:

Metaphor [...] consists in a substitution of proper names having a fixed sense and reference, especially in the case of the sun. This referent is the origin, the unique, the irreplaceable (so at least do we represent it to ourselves). There is only one sun in this system. The proper name is in this case the first mover of metaphor, itself non-metaphorical, the father of all figures of speech. (Derrida, 1974 p. 44)

Although the warming power of the sun can be felt tactilely, it plays out its function as a centering metaphor in the register of the visible. For a theory of power in the auditory, it is significant how Foucault describes the "complex strategic situation" to which he gives the name 'power': as a "moving substrate of force relations", as a process that is "permanent, repetitious, inert and self-reproducing" and which denotes the "overall effect that emerges from all these mobilities" (Foucault 1978, p. 93). This description of power relations can no longer be captured in an image of clear and distinct lines of sight. It suggests a thinking of

power as relations of forces that play out in the messy spatiality of fields, areas, and territories. Here, a shift within Foucault's theory of power can be noted. In *Discipline and Punish*, published a year before *The History of Sexuality*, power under the conditions of disciplinary society is developed from a logic of the visual. Panoptism, at once an architectural design for the ideal prison and a metaphor for the social formations that result from disciplinary power, is a matter of visual order and the gaze:

The crowd, a compact mass, a locus of multiple exchanges, individualities merging together, a collective effect, is abolished and replaced by a collection of separated individualities. From the point of view of the guardian, it is replaced by a multiplicity that can be numbered and supervised; from the point of view of the inmates, by a sequestered and observed solitude [...]. Hence the major effect of the Panopticon: to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power. (Foucault 1995, p. 201)

This image of power derived from the panopticon is encoded in the register of the visible, while its legal basis, criminal law, corresponds to the encoding of the sayable. In his book on Foucault, Deleuze put this connection in the formula: "[...] a form that haunted the whole of Foucault's work: the form of the visible, as opposed to the form of whatever can be articulated" (Deleuze 1988, p. 32). But what has always distinguished power, what Foucault implies in his definition from *The History of Sexuality*, and what Deleuze acknowledges in his text on the *Societies of Control* – by stating that power has changed its aggregate state: away from the solid forms of discipline to the liquid and/or gaseous ones of control – is that all registers of the sensory are in some way connectable to power. The absence of a center in the social power structure coincides as much with the singular plural anarchy of human sensory registers noted by Nancy<sup>6</sup> as it does with the absence of a "sun of sovereignty", the central star of the Occident that, according to Derrida, stabilizes the metaphors of metaphysics. The human sensorium is connectable to power mechanisms; the preference or rejection of certain senses must be thought of as the result of historically and culturally different strategic power relations. From this perspective, the interest in the auditory that has grown strongly in recent decades can be understood. Auditory power techniques create a strange and heterogeneous social field in which different social formations and practices meet, intermingle, and produce hybrid forms. The auditory field of the social thus becomes a resonating space of power and

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<sup>6</sup> Nancy describes this assemblage as "The 'singular plural' structure and dynamics of all the senses, their way of being precisely 'together' and touching themselves while still distinguishing themselves [...]." Nancy 2007, p. 71



resistance, music and racket, sound and noise. As a concept, the auditory refers to real spaces, areas and territories in and on which these processes occur. An auditory field is created when the previously unstructured space of the audible is territorialized by sound events and undergoes a process of structuring; a process that draws boundaries in that space, divides areas, and creates territories. At the same time, the auditory field can also designate the space of thought in which a theory of these processes can be formulated: as a register of conceptual thought, as a metaphor that points beyond actual auditory spaces and marks out a terminological tableau on which terms of a political acoustics can be defined, set in motion, and enter relations with one another.

## 6.2. Transgressions: Noise and Violence

The implicit in judgments about noise becomes explicit when it breaks into social space as acoustic violence. Sound, and thus noise, behave transgressively:<sup>7</sup> they cross boundaries, e.g. when invading one's own home as the 'noise of others'. But sound is also suitable for acoustically expanding one's own position and occupying a territory. It can cross physical boundaries, it creeps into the auditory canals and can be felt throughout the body as vibration. In violent confrontation, in insurrection or war, noise becomes a factor in the acoustics of the political. The connection of noise, violence and war was a decisive factor for the futuristic art of noise, it transferred the acoustics of the political extreme into the aesthetics of the musical. The connection between noise and violence, between loudness and sovereign authority, and the use of sound as a weapon is an archaic form; myths and religions are permeated by this relation. The psychoanalyst Theodor Reik traced the biblical and mythical references of this relation in his *Probleme der Religionsphilosophie* (Problems of the Psychology of Religion) published in 1909. Noise and music are closely related in the narratives concerned: "The common feature of these myths is that the invention of music and the first instruments is attributed in all these narratives to the gods and demigods. Orpheus, Arion, Hermes, Osiris, Apollo, Athena and Marsyas – everywhere it is a god who told man what he was suffering through the sounds." (Reik 1909, p. 178 f.). On one hand, music came from the deity to man. On the other hand, the communication between God and man is characterized by a discordant,

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<sup>7</sup> In this chapter I use the term transgression in its plain meaning. The implications of transgression in the writings of Georges Bataille will be discussed in a separate chapter dealing with noise as an aesthetic practice.

intense and excessive quality. Thus, in the Jewish rite, the shofar – a ram's horn that allegedly was the only instrument to survive the destruction of the Temple of Jerusalem and is still in use today – is, according to Reik, a "noise instrument". On it "no melodies, no different tones at all" (Ibid. p. 183) can be played, its sound is "more similar to the roar of a bull than to a musical performance" (Ibid. p. 193). According to Reik, this corresponds to the archaic form of ritual and prayer: "Originally, in interaction with the deity, the principle was: the louder, the better. One does not speak to God, one calls to him [...], one cries out to him [...]" (Ibid., p. 182). In this context, even the voice of God itself, the sacred noise par excellence, bears no relation to meditative silence or a cosmic harmony of the spheres. Reik insists that the sound of the shofar and the voice of God are similar. The blowing of the horn represents an act of identification with God, it "represents the presence of God" (Ibid., p. 224). The Old Testament emphasizes the warlike and destructive use of the shofar in several places. One of the most famous biblical passages on this complex concerns the blowing of the 'trumpets of Jericho' with which the Israelites brought down the fortifications of a city.<sup>8</sup> The instrument was also used by the people of Israel in other military contexts: "In the Bible we hear the sound of the shofar, the blaring of the horn or the terûa, in the thick of battle. Job speaks of the 'Kôl Schôfar' in an account of combat. It serves to frighten the enemy like the barditus of the Germanic tribes. It is the intention of fright, of shock, that stands out most clearly in its use [...]" (Reik 1909, p. 186 f.).

Contemporary examples of sacred noise corresponding with holy terror, or the presence of God can be given with difficulty. As Murray Schafer has lamented, the power of loudness has been so permanently profaned by industrial revolution, mass media, and amplification technology that only simulacra of sacred noise remain.<sup>9</sup> In contrast to this tendential immobilization or obscuration of sacred acoustics, the use of sound as a means of violence and terror has not disappeared from arsenals to this day. The use of sound as a means of psychological terror, threat, and intimidation is probably as old as violent confrontation between people. The war cry unfolds its effect precisely in its proximity to the animalistic; in

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<sup>8</sup> In a kind of perverse appropriation, the German Luftwaffe during World War II used the term 'Jerichotrompeten' for the sirens installed in its dive bombers (cf. Mattern, Jens/Kloth, Hans Michael: "Stukas über Wielun," in Spiegel Online, 26.8.2009, <https://www.spiegel.de/geschichte/kriegsbeginn-1939-a-948468.html>).

<sup>9</sup> Cf Schafer: "[...] to have the Sacred Noise is not merely to make the biggest noise; rather it is a matter of having the authority to make it without censure. " (Schafer 1994, p.76)

the combination of noise, threat, deterrence and violence, a contiguity of man and animal, of anthropophony and biophony, is indicated.

In the course of modernity, the noise production of war has taken on proportions that prompted not least Luigi Russolo and Ernst Jünger to write a prose of excessive descriptions of noise.<sup>10</sup> The mechanization of war in the 20th century led to an exponential growth of its noise production, the pseudo-sacred character of which was and remains an object of fascination for fascism. What can be established as a historical constant is that noise has always been a symptom or effect of the mass use of violence. However, the idea of a concrete and functional technology of sonic weapons is more recent. The concept of demoralizing or incapacitating the enemy with concentrated sound has found various applications historically, but a real-world sonic weapon capable of doing more than causing mere auditory damage poses practical problems. The harmful effects of extreme sound are well understood, but some persistent myths about its potential applications persist. Jacques Attali, who in addition to his work as an economist and advisor to François Mitterrand was also one of the pioneers of noise theory, equates noise with violence in his *Political Economy of Music*: "[...] noise is violence: it disturbs. To make noise is to interrupt a transmission, to disconnect, to kill. It is a simulacrum of murder." (Attali 1985, p. 26).<sup>11</sup> This thesis is not a mere metaphor for Attali; he wants to back it up with physical evidence:

In its biological reality, noise is a source of pain. Beyond a certain limit, it becomes an immaterial weapon of death. The ear, which transforms sound signals into electric impulses addressed to the brain, can be damaged, and even destroyed, when the frequency of a sound exceeds 20,000 hertz, or when its intensity exceeds 80 decibels. (Ibid., p. 27)

These are simple misconceptions. A frequency of 20 kHz is not perceived by the vast majority of people and does not impair hearing in any way. Sound intensities of 80 dB damage the hearing at longer exposure times without recovery pauses, immediate hearing damage generally occurs at sound pressure levels around 120 dB, while at a threshold of 160 dB the

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<sup>10</sup> "This is a frenzy above all frenzy, an unleashing that breaks all bonds. It is a frenzy without consideration and limits, comparable only to the forces of nature. Man is like the roaring storm, the raging sea and the roaring thunder. Then he is merged into the universe, he races toward the dark gates of death like a projectile toward its goal." (Jünger 1922, p. 53). Jünger expressed himself in this and similar terms about his experiences at the battlefield in the First World War: man becomes a force of nature in war, i.e., he phantasmatically exchanges first nature for second nature.

<sup>11</sup> In *Noise. The Political Economy of Music*, the neoliberal wolf Attali poses in the sheepskin of post-marxist and situationist theory. A thorough critique of Attali's politics is beyond the scope of this text. A good starting point for a critical assessment from a situationist perspective can be found at <https://www.notbored.org/attali.html>

eardrum can rupture and permanent hearing loss occurs.<sup>12</sup> Legend has it that it is possible to use infrasound as a weapon that can cause dizziness, nausea, vomiting, and intestinal cramps, or to incapacitate the enemy with 'acoustic projectiles'. In a research report published in 1999, physicist Jürgen Altmann examined the truth of these and similar myths. Altmann proves that infrasonic weapons and similar fantastic warfare devices are at the limits of what is physically possible and that the relation between effort and effect of such applications hardly offers real possibilities of use. According to his research report, the only physically realizable effect of a sonic weapon is the temporary or lasting impairment or destruction of the sense of hearing.<sup>13</sup>

Altmann emphasizes the interest in the use of non-lethal weapons (NLW) that arose among various militaries after the end of the Cold War. These were mainly intended for counterinsurgency purposes. "Whereas some foresee a military revolution and 'war without death', most analyses predict or prescribe that NLW would just augment lethal weapons, arguing that in actual war both types would be used in sequence or in parallel. " (Altmann 1999, p. 1). Military and police applications are blurring into a grey area with the common goal of ensuring the most extensive control of revolting crowds. One of the few 'non-lethal' devices based on acoustic principles currently in actual use by military forces, police and security services is the Long Range Acoustic Device (LRAD) manufactured by the US company Genasys (until 2019: LRAD Corporation), which has been in production since 1996 and (according to the manufacturer) is used in 72 nations. The LRAD is a loudspeaker that focuses sound at a dispersion angle of 15 to 30 degrees and transmits it at a range of up to 3 kilometers, where the frequency range between 1 kHz and 5 kHz, which is important for speech intelligibility, is particularly amplified.<sup>14</sup> A striking feature of the LRAD is its alignment with visual techniques of control, which is achieved through the technology of sound focusing: Similar to a searchlight, the LRAD can aim at its targets as if with a beam, it concentrates sound to a focal point and minimizes its uncontrolled scattering. According to the manufacturer, the device is designed as "[...] a highly intelligible long-range communications system" that "fill[s] the critical gap between the limited range and intelligibility of bullhorns and non-lethal measures", it is "non-kinetic and much safer than water cannons, tear gas projectiles, rubber bullets, pepper

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<sup>12</sup> Cf Altmann 1999, p. 13

<sup>13</sup> Ibid, p. 60. Altmann points out that the deployment of common hearing protection can neutralize the effects of sonic weapons.

<sup>14</sup> Cf. the Genasys/LRAD 2016: *Brochure Law Enforcement* at [https://genasys.com/wp-content/uploads/2015/05/LRAD\\_Brochure\\_Law\\_Enforcement.pdf](https://genasys.com/wp-content/uploads/2015/05/LRAD_Brochure_Law_Enforcement.pdf)

balls, Tasers and flash bang grenades" (LRAD/Genasys 2015, p.1). In the same *White Paper*, LRAD/Genasys feel obliged to emphasize that their product is "not a weapon" (ibid.). Whether it is precisely that or a safe communications systems remains disputed. In June 2017, a New York City court ruled that the NYPD's use of an LRAD during the Black Lives Matter protests that took place in 2014 in response to the killing of Eric Garner must be evaluated as a form of acoustic violence. The police had made excessive use of the LRAD's warning tone, causing the six plaintiff demonstrators to experience symptoms such as "migraine, sinus pain, dizziness and tinnitus".<sup>15</sup>

De facto, the LRAD has three applications: the transmission of announcements and orders in chaotic situations, the dispersal of crowds, and the option to incapacitate attackers. In the first two functions, uses are documented, among others, during the protests against the G20 summit held in Pittsburgh in 2009 (the police used an LRAD to drive demonstrators off the street with painful siren sounds).<sup>16</sup> In 2005, the device was used on the cruise ship *Seabourn Spirit* to repel a pirate attack off the coast of Somalia.<sup>17</sup> A case study published on the Genasys website also includes an account of LRAD deployments at protest rallies against former presidential candidate Donald Trump that took place in San Diego in May 2016.<sup>18</sup> On the same website, other uses of the device are enumerated. These range from widely audible announcements in confusing crowd situations to counterinsurgency in the prison system. The LRAD is intended to encourage prisoners to behave in accordance with the rules, to prevent communication between prisoners, to stop non-compliant behaviour and to end fights or riots.<sup>19</sup> The possibility of "scalable EOF"<sup>20</sup> is emphasized, i.e. the gradual Escalation Of Force (or violence). The particularly good intelligibility and unmistakable assertiveness of the LRAD compared to other sound amplification technologies is mentioned again and again.

A lack of comprehensibility on part of law enforcers raises problems of a fundamental nature. In demonstrations, riots or insurrections, a lack of comprehensibility can be tantamount to a loss of authority. The *Assembly Act* of the Federal Republic of Germany stipulates in § 13: "As

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<sup>15</sup> Cf. Moynihan, Colin: »Noise as a Weapon? Police Use of Sound Cannons Questioned«, in: *New York Times*, 1.6.2017, <https://www.nytimes.com/2017/06/01/nyregion/sound-cannon-protest-lawsuit-long-range-acoustic-device.html?searchResultPosition=1>

<sup>16</sup> Footage of this can be found at [https://www.youtube.com/watch?v=QSMY3\\_dmrM](https://www.youtube.com/watch?v=QSMY3_dmrM)

<sup>17</sup> Cf. »I Beat Pirates with a Hose and Sonic Cannon«, in: BBC News, 17.5.2007, [http://news.bbc.co.uk/2/hi/uk\\_news/6664677.stm](http://news.bbc.co.uk/2/hi/uk_news/6664677.stm)

<sup>18</sup> Cf. Genasys/LRAD 2016

<sup>19</sup> Cf. Ibid.

<sup>20</sup> Cf. Genasys/LRAD 2019 [https://genasys.com/wp-content/uploads/2019/10/Brochure\\_Defense.pdf](https://genasys.com/wp-content/uploads/2019/10/Brochure_Defense.pdf)

soon as an assembly is declared dissolved, all participants must leave immediately."<sup>21</sup> The text of the law does not specify how this declaration is to be legally enforced, nor do the police laws of the German federal states provide any information on this. In practice, such declarations must be transmitted vocally. They attain their legal force through the principle of orality, in the use of the 'living voice'<sup>22</sup>. If no one hears them, it seems as if there has been no declaration – which again raises the problem of force or 'means of coercion'.<sup>23</sup> The Austrian *Rechtsinfokollektiv* writes about the dissolution of demonstrations by the police:

The dissolution of a demonstration takes place with a verbal announcement by the assembly authority. This is usually done with a megaphone or loudspeaker of an emergency vehicle. In practice, announcements of the dissolution are usually difficult or impossible to hear due to the background noise and the police speakers, which are far too weak for several hundred people. The fact that the announcement is not audible or understandable for all demonstration participants, however, unfortunately does not harm the dissolution. The dissolution of the demonstration is still valid and the police can also take action against those who did not hear or understand the announcement. (Rechtsinfokollektiv 2021)

There seems to be an unbridgeable gap between the mythical expression of a sacred noise, which derives from God as a sign of absolute authority, as well as the delimited and delimiting noise development of war on the one hand, and the supposedly sterile acoustic assertiveness of modern sonic weapons on the other. Noise here no longer unfolds as an acoustic effect of violence, rather it is supposed to take the place of violence itself. The ideal application of the LRAD consists in the transmission of an order, which would be obeyed immediately. If the order cannot be enforced, it is replaced by acoustic force. The warning sounds of the LRAD are intended to inflict pain and to compel to leave the scene. Commands, warnings and the infliction of pain unfold their effect in the order of the spatial, creating distances or 'safety zones' or dispersing gatherings. It is precisely in its spatial effect that this technical application

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<sup>21</sup> Cf. § 13 Abs. 2 VersG, [http://www.gesetze-im-internet.de/versammlg/\\_13.html](http://www.gesetze-im-internet.de/versammlg/_13.html)

<sup>22</sup> Mladen Dolar has analyzed the relationship of the sacred and legal usage of the voice: "Those words, carefully stored on paper and in memory, can acquire performative strength only if they are relegated to the voice, and it is as if the use of the voice will ultimately endow those words with the character of sacredness and ensure their ritual efficacy, in spite of—or, rather, *because of*—the fact that the use of the voice does not add anything to their content. [...] Secular examples follow the same pattern: court proceedings have very strict rules about the parts of the process and the depositions that have to be made by voice." (Dolar 2006, p. 107 f.)

<sup>23</sup> *Zwangsmittel* or *unmittelbarer Zwang* (direct coercion) are German legal speak for the use of violence by the police forces.

overlaps with archaic forms of noise production. In Michel Serres' reading, noise can both take the place of the weapon and occupy space:

The cause and goal of a squabble are the taking of space, and noise occupies space. The whole point is to hold, occupy or take a space. [...] Noise against noise. Noise against weapon. Noise is a weapon that, at times, dispenses with weapons. [...] And noise occupies space faster than weapons can. (Serres 1995, p. 52)

Noise, clamour, loud sound thus become distance weapons that replace or supplement the direct application of force, the physical contact with batons, rubber bullets or pepper spray. During the protests of the *gilets jaunes* in the winter of 2018/19, the French riot police CRS used masses of so-called *grenades assourdissantes* in Paris. These flashbang grenades are used to disperse crowds, frighten or paralyze demonstrators and establish a sonic dominance of state power. In their simplistic effectiveness, these grenades are entirely devoid of the high-tech nimbus of LRAD.<sup>24</sup>

Noise can become an auditory block that occupies a certain terrain, develops its authoritative effect there, and within which nothing else is to take place or become audible. From the perspective of information theory, this access to public space opens up a paradoxical continuum in which opposites merge: The clear, comprehensible and distinct command and noise as painful sound are gradations of the same power function. Its antipode is the mass defined as chaotic, disorderly and noisy, a crowd that becomes a kind of 'social noise'.

The acoustics of power do not take place on the spatial level alone; their dynamics must also consider the factor of time. Chronologically, the use of force is immediate, while the order allows for a delay since time must pass to see if it will be obeyed. The situation of rioting and repression follows a logic of escalation and de-escalation, in which command and violence follow one another and can merge into each other. Temporal and spatial factors are thus in an interplay that intertwines power and force. The two touch, they respond to each other. Between them stretches a dynamic continuum of distances and durations, which Elias Canetti described in this way:

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<sup>24</sup> Documentation of the protests can be found in this video uploaded to YouTube on 11/26/2018: <https://www.youtube.com/watch?v=m8B0chGfrts> , retrieved 7/1/2020 The use of noise grenades can be observed starting at minute 06:00.

The word 'force' suggests something close and immediate in its effect, something more directly compelling than power. The phrase 'physical force' is really only a more explicit expression of the same idea, for power in its lower and cruder manifestations is always better described as force; it is by force, for example, that prey is seized and carried to the mouth. When force gives itself time in which to operate it becomes power, but when the moment of crisis arrives, the moment of irrevocable decision, it reverts to being pure force. Power is more general and operates over a wider space than force; it includes much more, but is less dynamic. It is more ceremonious and even has a certain measure of patience. (Canetti 1973, p. 281)

In Canetti's argumentation, force or violence is both the point of departure and termination of power. In the command, both are intertwined, it concentrates the physicality of power in the sense of Foucault on a single point, it becomes a sting, a projectile: "But the sting sinks deep into the person who has carried out the command and remains in him unchanged." (Ibid., p. 305). For Canetti, the command has an underlying pre-linguistic function in which what matters is not so much what is said, but how something is stated: "Commands are older than speech. If this were not so, dogs could not understand them. [...] The trainer makes his will known to [the animals] in short, clear commands, no different in essence from those addressed to human beings; and they also obey his prohibitions." (Ibid. p., 303). The command is an utterance that can be arbitrarily reduced in content. Ultimately, it can do without words. In the sense of an interface of power and force concentrated on a single point, it can also consist merely of a painful sound, of a warning signal that is supposed to compel flight. The logic of information transmission is thus reduced to a bare and skeletal formula: *Obey. Get out. Clear the space.* This statement is absolutely concrete, there is nothing to misunderstand about it, even if it is devoid of words. There is no choice among different messages. On a physical level, it is an infliction of pain without the direct expenditure of kinetic energy, without touch and without contact: no blows, no rubber bullets, no pepper spray, only painful whistling sounds or explosions that provide the acoustic dominance of the law enforcers – an acoustic projectile that enters the body through the auditory canal. Canetti's metaphor of the sting is involuntarily taken by the word in this process. The complex of acoustic power and force, one of the possible definitions of noise, thus becomes a guarantor of intelligibility; intelligibility, however, is diametrically opposed to the definition of noise as uncertainty given in information theory. This intelligibility gets by without logic, without interpretation and without linguistics, since it aims at the body and only strives for the execution of a command.



Deleuze and Guattari, in a chapter of *A Thousand Plateaus*, addressed the consequences that this complex has for the theory of language. According to one of the *postulates of linguistics*, language is informative and communicative. The authors contrast this rule with the logic of commands or order-words: "The elementary unit of language—the statement—is the order-word. Rather than common sense, a faculty for the centralization of information, we must define an abominable faculty consisting in emitting, receiving, and transmitting order-words." (Deleuze/Guattari 1987, p. 76). Deleuze and Guattari aim at an understanding of the order-word in which statement and action coincide. They define two modes of this overlap: In the case of the performative, the utterance itself is an action, such as in an oath or a vow; in the delocutionary, a more general and comprehensive intersection between the two spheres can be formed, in that "[t]here are also intrinsic relations between speech and certain actions that are accomplished by *saying them*." (Ibid. p. 77). Asking a question or issuing a command are speech acts in which such a relation is realized. For information theory and its model of communication, this view raises problems. Although information theory ignores the semantic part of communication and concentrates on its technical aspects, it calculates that information always aims at an effect (an action, a behavior). Otherwise it would not aim at unambiguity and interference-free communication channels.<sup>25</sup> Although the critique formulated by Deleuze and Guattari is aimed at the *postulates of linguistics*, the terms they use – information, redundancy, noise – are taken from the toolkit of information theory. At the heart of their critique lie the divisions and hierarchizations made in information theory between message, noise/interference, and redundancy. The hierarchical relationship between information and redundancy formulated by Shannon and Weaver is turned on its head:

Order-words do not concern commands only, but every act that is linked to statements by a 'social obligation'. Every statement displays this link, directly or indirectly. [...] The relation between the statement and the act is internal, immanent, but it is not one of identity. Rather, it is a relation of *redundancy*. The order-word itself is the redundancy of the act and the statement. [...] Language is neither informational nor communicational. It is not the

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<sup>25</sup> The general and abstraction-from-meaning character of information theory, which cannot make a distinction between art and military technology, is evident from this definition: "The word *communication* will be used here in a very broad sense to include all of the procedures by which one mind may affect another. This, of course, involves not only written and oral speech, but also music, the pictorial arts, the theatre, the ballet, and in fact all human behavior. In some connections it may be desirable to use a still broader definition of communication, namely, one which would include the procedures by means of which one mechanism (say automatic equipment to track an airplane and to compute its probable future positions) affects another mechanism (say a guided missile chasing this airplane)." (Shannon/Weaver 1963, p. 3)

communication of information but something quite different: the transmission of order-words, either from one statement to another or within each statement, insofar as each statement accomplishes an act and the act is accomplished in the statement. The most general schema of information science posits in principle an ideal state of maximum information and makes redundancy merely a limitative condition serving to decrease this theoretical maximum in order to prevent it from being drowned out by noise. We are saying that the redundancy of the order-word is instead primary and that information is only the minimal condition for the transmission of order-words [...]. (Ibid., p. 79)

In the case of the order-word as delocutionary, one is thus dealing with an immanence and not with a relation of identity. The command as statement and the command as action do not take the form of identity ( $A=A$ ) with all its ontological complications, but that of immanence, in this case: of remaining in a given area without crossing the distance or boundary which is suggested in the proposition of identity by the sign of equality. What connects them is not the principle of equation or equality (which always refers to an *inter*, an in-between space), but the principle of repetition in the same space, of redundancy, whose formula would be "A, A, A, ...". The role of information in the generalized social chain of command is to establish uniqueness (a role that, in information theory, redundancy again assumes as a buffer or margin of safety). It establishes that social mechanisms and power structures produce unambiguous, purposive couplings: "Information is only the strict minimum necessary for the emission, transmission, and observation of orders as commands. One must be just informed enough not to confuse 'Fire!' with 'Fore!' [...]." (Ibid., p. 76). In a text on Jean-Luc Godard's cinema that appeared four years before *A Thousand Plateaus*, Deleuze commented on the relationship between information, redundancy, and noise from perspective that seems to privilege the role of noise more and to indicate a direction that escapes the command structure. For noise and disturbance leave the place ascribed to them in information theory as noise source when they are no longer conceived as a threat to intelligibility, but reveal an area of language that can escape the interlocking of redundancy and information in the command structure:

We ought in fact to invert the scheme of information theory. The theory assumes a theoretical maximum of information, with pure noise, interference, at the other extreme; and in between there's redundancy, which reduces the information but allows it overcome noise. But we should actually start with redundancy as the transmission and relaying of orders or instructions; next, there's information – always the minimum needed for the satisfactory reception of orders; then what? Well, then there's something like silence, or like stammering,

or screaming, something slipping through underneath the redundancies and information, letting language slip through, and making itself heard [...]. (Deleuze 1995, p. 41)

How can we apply to political conflict what Deleuze says about language and information theory? In a conflict, riot or insurrection, it is not only what is said that matters, but also how it is said and by how many. Political disputes have a performative level in which the statement can tend to be covered up. What role could noise, roaring and disturbance play in a political argument; can noise 'make something flow' (a discourse, a dissense, a dissonance), introduce dynamics into hardened positions and enable an articulation of the unsayable?

As a homonym, noise, or, in the Romance languages, *bruit*, *ruido*, and *rumori*, establishes a consonance of 'riot' and 'noise' that links acoustic and political negativity. A similar conflation is found in modern Greek. The word *θόρυβος* (*thorubos*) today denotes acoustic noise as well as noise in the sense of information theory. In its original meaning, however, it was associated with the sphere of the political. *Thorybos* or *thorubos* there denoted the noise of the people in revolt (the *δῆμος/demos*), political strife, and disorder in assemblies. However, *θόρυβος* did not have exclusively negative connotations among the ancient Greeks but was seen as an integral part of political processes. For the Greek scholar Ilias Arnaoutoglou, it was one of the essential elements of ancient Greek democracy:

*Thorubos* (that is cheers, shouts, heckling and laughter) was an essential feature of social activity in the ancient Greek world. Several scholars emphasized the role of *thorubos* in the working of Athenian democracy, in the assembly and in the lawcourts. Tacon [...] claims that *thorubos*, that is cases when speakers interrupt each other, *demos* interrupts speakers, *demos* allies with opposing speakers, was an integral feature of assembly debate and by extension of Athenian democracy. Anti-democracy theorists regarded it as negative. In the same vein, Wallace [...] notes that the Athenian *demos* felt no obligation to sit quietly and listen to talk they objected to; such conduct was a befitting feature of a monarchy, oligarchy or tyranny. *Thorubos* was some sort of a negative vote of the people. (Arnaoutoglou 2014, p. 1)

The democracy of the ancient polis was thus permeated by a noisy turmoil that was an essential part of its processes. *Θορυβος* as a concept is remarkable insofar as it assigns a productive role to unrest and turmoil in sociopolitical disputes and thus differs fundamentally from the currently prevailing dispositifs of security politics. According to Arnaoutoglou, *θορυβος* heightened socio-political tension, but on the premise that political life was woven

of tensions.<sup>26</sup> Likewise, *θορυβος* leaves behind the dichotomy of *φωνή* (*phōnē*) and *λόγος* (*lógos*), by means of which the division into rationally speaking citizens on the one hand and animals, slaves, and women on the other was accomplished (in the case of Athenian democracy, however, under the premise that it is the male citizens of the state alone who can and may produce *θορυβος*. Those who are not admitted to the assembly merely make noise). Noise as a constitutive feature of political processes is the opposite of the social command structure and the state apparatuses of power and violence with their sterile ideology of non-lethal means of coercion. From an information-theoretical perspective, Noise would be located in the situation of the insurrection in a crowd of people that emits chaotic noise and thus threatens the intelligibility of the targeted information. Noise is, in the logic of a police information theory (or an information-theoretically operating police), synonymous with the uncontrolled and chaotic crowd.<sup>27</sup> In the insurgency, several definitions of noise come into play, which cannot be neatly separated from each other, but rather merge and produce a disorder, a specific noise of contrasting definitions.

The command as a performative act is not the only mode in which power can express itself acoustically. What Serres calls the spatial and space-occupying function of noise (and which he explicates using the example of a pre-modern battle din) can become a comprehensive design of the acoustic environment in the context of current technologies of power and control. Around the G20 summit in July 2017, large parts of the city of Hamburg were dominated around the clock by the sonic dominance of police helicopters. In the run-up to the summit, Hamburg's local press reported: "It will be crowded over Hamburg during the summit. A total of 17 police helicopters and one twin-engine airplane [...] are in operation. [...] In addition, three Bundeswehr helicopters can be requested by the police - also in the course of

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<sup>26</sup> Politics, as exemplified by the Athenian polis, as something composed of tensions can also be found, under other names, in Jacques Rancière's work: "The setting-up of politics is identical to the institution of the class struggle. The class struggle is not the secret motor of politics or the hidden truth behind appearances. It is politics itself, politics such as it is encountered, always in place already, by whoever tries to found the community on its *arkhe*. This is not to say that politics exists because social groups have entered into battle over their divergent interests. The torsion or twist that causes politics to occur is also what establishes each class as being different from itself." (Rancière 1999, p. 18). Without disagreement, without dissonance or noise, there is no politics.

<sup>27</sup> Examples of how law enforcers use the ambiguity of noise to their strategic advantage can also be found. In 2021, while the British public was discussing the *Police, Crime, Sentencing and Courts Bill* (a law that massively expanded the powers of the police. One section concerned 'noisy protests' and officer's authority to disperse them) that has since been passed, the story made the rounds that Priti Patel could not give a clear definition of noise in the text of the law in a news broadcast. Such ambiguities are intentional; their scope for interpretation provides those in power with strategically usable leeway.

Cf. <https://www.independent.co.uk/news/uk/politics/priti-patel-protest-law-ban-b1821610.html>

an administrative assistance - so that in total even up to 20 helicopters would be available."<sup>28</sup> It can be assumed that the sound emissions of this operation were not consciously taken into account by the Hamburg police authorities and that they were accepted as collateral damage of a surveillance that was as complete as possible.<sup>29</sup> The effects of this acoustic omnipresence, however, made perfect sense from the point of view of a demonstration of power. The helicopter missions intertwined two sensory registers in an asymmetrical power relationship whose simple message was: *You have to hear us because we can see you*. In this sense, a sound that in all possible definitions could only be described as noise, annoyance and communication-less static, became a message and a symbol of power. One could speak of a subjugating design if the ensemble of noise and surveillance did not violate basic assumptions of design theory, especially that of intentional and planned design. To impute plan and premeditation to the police would distract from another possible explanation - that one is not dealing with the planned design of whatever kind, but with the more or less arbitrary yet agentic shaping of a situation.

In the context of a theory of political acoustics, larger contexts could be established from a situation like this. Such a theory, or even a study of the topic at all, has so far only existed in rudimentary form. With a few exceptions, soundscape research seems to shy away from dealing with political clashes, social struggles and the acoustics of the political.<sup>30</sup> One approach to an analysis of noise as a characteristic of politics can be found in Brandon LaBelle's *Acoustic Territories*:

The riot, the street fight, and the demonstration may be understood as dynamic instances of conflict and debate, as well as an audible interaction between writing (the dictates of law) and noise (the suspension of law), an interaction that lends to defining history: on one side, the law as a signature of written record, decree, juridical account, and on the other, a drive toward its overturning, whose momentum relies upon, is initiated, or calls for the development of a separate language, one that stands in opposition, or that brings the law into its own hands. [...] Thus, riots, street fights, and demonstrations produce an audibility that seeks to overwhelm

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<sup>28</sup> Cf. Zand-Vakili André: »So schützt die Polizei bei G20 den Himmel über Hamburg«, in: *Hamburger Abendblatt*, 30.6.2017, <https://www.abendblatt.de/hamburg/g20/article211082035/So-schuetzt-die-Polizei-bei-G20-den-Himmel-ueber-Hamburg.html>

<sup>29</sup> Since air surveillance could have also been achieved with silent drones, contrary speculations would also be possible.

<sup>30</sup> One of the exceptions is the *Protest & Politics* project, which offers an interactive map of footage from protests around the world at <https://citiesandmemory.com/protest/>

the written record, the law, and house rule with a meaning determined by volume and the promise embedded in making a noise. (LaBelle 2010, p. 109)<sup>31</sup>

These considerations must be modified at crucial points. On the one hand, LaBelle's juxtaposition of noise and written law inevitably misses the moment of acoustic violence in the sphere of the political. What emerges from the complex of sound-as-weapon, the logic of command, and subjugating 'sound design' by forces of order is not found in any legal text. There is a paragraph in German law about the dissolution of assemblies, but no codification of the process itself. Political noise unfolds in a grey area of law, which does not correspond to the juxtaposition of order and revolt. The police produce and use noise just as their counterparts do.<sup>32</sup> On the other hand, the emancipatory or utopian promises of noise, as suggested by LaBelle, are to be subjected to a differentiating critique. In the situation of an uprising, several of the possible definitions of noise blend into a specific topos, they merge seamlessly into one another: Loud sounds determine the scene as acoustic noise. In a socio-political sense disturbances, negativity and violence are released, and according to an information-theoretical-cybernetic definition the official communication channels and control circuits are disturbed, blocked or interrupted. However, all these aspects are subject to their own calculations. Violence is responded to with counter-violence, noise with greater and more targeted noise for which LRADs and flashbang grenades provide the paradigm; disruptions and interruptions can be calculated according to the order-from-noise principle, taken into account, and made a factor in security policy strategy. If noise is to have a genuine role in the sphere of political revolt, then it must always be ignited by concrete and ultimately contingent individual cases. An abstract, supra-historical and predictable form of noise, which takes place according to calculable regularities would result in a *contradictio in adjecto*, in which all parties involved in a conflict know exactly what to expect and in which no system-disrupting or system-destabilizing noise and revolt could unfold.

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<sup>31</sup> One of the examples of noise as a means of street fighting and political agitation that LaBelle cites is the smashing of windows of public buildings by the British suffragettes in the early 20th century. This form of vandalism, aimed at winning women's suffrage, broke not only written but also unwritten laws: namely, how women should behave in public. The noise of shattered glass broke through laws and conventions and brought a revolutionary cause loudly into the public sphere (cf. *ibid.*, p. 112 f.).

<sup>32</sup> This idea could also be applied to the tendency of global wars and armed conflicts to become increasingly 'asymmetric': the decomposition of the international conventions by which war was supposed to be contained by a set of rules, as a specific kind of noise or chaotic movement of noise; however, this is beyond the scope of this paper. I refer in this context to the 2015 book *Listening to War* by J. Martin Daughtry.

In this texture, in which various definitions of noise as well as power and violence interweave to form an acoustics of the political and thus its auditory field, music is one of the strands. In his book *Sonic Warfare*, Steve Goodman describes aspects of a political acoustics to which he gives the name *unsound*. The not yet or no longer audible is combined in this term with an auditory irrationality; a concept that has some intersections with noise. Goodman makes the analogy or ambiguity of *unsound* productive in his conception of sonic fiction, in which the not yet or no longer audible opens speculative spaces of possibility for strategies of power of the auditory and forms of an acoustic resistance. *Unsound* in this context denotes an access to the audible that obeys no aesthetic reason and can enact an acoustics of violence; a force that turns 'innocent' pop songs into torture devices. *Unsound*, as a concept, can to some extent escape the definitory pitfalls inherent in the juxtaposition of sound and noise (such as when the one is reduced to the emblem of an aesthetic rationality of the auditory and the other becomes the signature of acoustic violence). For music also occupies a place in the acoustics of power and force. This does not so much refer to the orderly and signal-like mobilization of sound, which as military music fulfilled a structuring function within the tendentially chaotic 'art of war' for centuries. The shofar horns, which as the voice of God *in effigie* brought down the walls of Jericho, can be read as the mythological model of modern psychological warfare. Thus, several examples can be found from recent decades in which popular music has been re-functioned as a demoralizing siege tool. In December 1989, during the U.S. invasion of Panama, the dictator Manuel Noriega, who had barricaded himself in the Vatican embassy, was subjected to days of loud rock music by American troops.<sup>33</sup> A similar situation arose in 1993 during the FBI's siege of the Davidian sect in Waco, Texas.<sup>34</sup>

One of the results of the War on Terror – which has little relevance in the context of global political developments but forms an ominous nexus in the context of music and political acoustics – is a kind of inversion of the functions of the military-entertainment complex. While Friedrich Kittler in 1991 saw "rock music" as a "misuse of military equipment"<sup>35</sup> and pointed out that all sound recording and transmission technologies that made the international spread of popular music in the second half of the 20th century possible could be traced back to the

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<sup>33</sup> Cf.: "The Rock 'n' Roll Assault on Noriega," The National Security Archive, Feb. 6, 1996, <https://nsarchive2.gwu.edu//nsa/DOCUMENT/950206.htm> , which also provides a list of songs used, including *Nowhere to Run* by Martha and the Vandellas.

<sup>34</sup> Cf. Goodman 2010, p. 21

<sup>35</sup> Cf. Kittler 2014

technical innovations of the two world wars, today we are confronted with a situation in which popular music itself has become a means of force used by the military. For the occupation of Iraq by U.S. troops and for the Guantanamo Bay internment camp, there is evidence of the torture of prisoners through music by the U.S. Army's Psychological Operations Companies (*psy-ops*). These and similar techniques of 'white' torture leave no physical trace and are difficult to prove. They target the psyche of victims, where they can have devastating effects.<sup>36</sup> A 2003 BBC report quotes a *psy-ops* officer reporting on the use of heavy metal and music from the children's show *Sesame Street* in interrogation situations with Iraqi detainees: "They can't take it. If you play it for 24 hours, your brain and body functions start to slide, your train of thought slows down and your will is broken. That's when we come in and talk to them".<sup>37</sup> In the 2010 documentary *Musik als Waffe* (music as a weapon), filmmaker Tristan Chytroscheck collected accounts from perpetrators and victims of this practice. In an interview, he points out the neurological effects that music can have in the exceptional situation of interrogation and torture:

[Question]: Why did the prison guards use music for torture? Wouldn't loud noises have had the same effect?

[Answer]: We asked a music psychologist that question. Music is probably most effective because the brain is very bad at tuning out music. People who live on noisy streets eventually get used to the noise. The brain can eventually tune out the noise. It can't do that with music. Music, like speech, has rhythm and melody, and our brains are programmed to perceive those sounds.<sup>38</sup>

Thus, it is the basal characteristics of music that make it amenable to a decidedly violent and harmful application. This literally perverse use of music coincides in a paradoxical way with the definition of noise as a harmful form of the auditory. Insofar as noise can be defined as an audio-aesthetic practice devoid of the attributes of music (rhythm, melody), it could be concluded in an *argumentum e contrario* that noise is less suitable for the purposes of torture

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<sup>36</sup> Systematic torture through music can be documented for various times and regions; e.g. prisoners were forced to sing nationalist songs during the Greek Civil War (1944-1949) (cf. Grant, Morag Josephine: "Rein, schön, furchtbar. Musik als Folter," in Paul/Schock (eds.): *Sound of Time*, Göttingen: Wallstein 2014, pp. 547-553).

<sup>37</sup> »Sesame Street Breaks Iraqi POWs«, in: *BBC News*, 20.5.2003, [http://news.bbc.co.uk/2/hi/middle\\_east/3042907.stm](http://news.bbc.co.uk/2/hi/middle_east/3042907.stm)

<sup>38</sup> Lukic, Toni: »In Guantanamo wurde mit der Sesamstraßenmusik gefoltert«, Interview with Tristan Chytroscheck, in: *VICE*, 22.12.2012, <https://www.vice.com/de/article/exkyx7/news-in-guantanamo-wurde-mit-der-sesamstrassenmusik-gefoltert>



than harmless light music. In the context of torture, however, just about any stimulus can become a means of violence. Music itself is not so much characterized by an inherent violence as it is by points of connection and contact with violence and power, both in terms of its application and its creation and development. The nexus of music and power will be the central topic of chapter 6.4. Before that, however, the role of silence, that ostensible absence of sound that seems like the antithesis of noise, must be examined more closely in its relation to other phenomena of the auditory and especially in the role it plays in the auditory field of the social and in the acoustics of the political, of power and of violence.

## Sources

**Altmann, Jürgen** (2001): *Acoustic Weapons. A Prospective Assessment*, in: Science and Global Security 9, 3

**Arnaoutoglou, Ilias** (2014): *Greek thorubos, Roman eusthatheia. The Normative Universe of Athenian Cult Associations*,

[http://www.academizanda.edu/7199619/Greek\\_thorubos\\_Roman\\_eustatheia. The normative universe of Athenian cult associations](http://www.academizanda.edu/7199619/Greek_thorubos_Roman_eustatheia._The_normative_universe_of_Athenian_cult_associations)

**Attali, Jacques** (1985): *Noise. The Political Economy of Music*, Minneapolis: University of Minnesota Press

**Benjamin, Walter** (1968): *Illuminations*, New York: Schocken

**Canetti, Elias** (1973): *Crowds and Power*, New York: Continuum

**Cities and Memory** (2022): *Global Sound Map of Protests*, <https://citiesandmemory.com/protest/>

**Daughtry, J. Martin** (2015): *Listening to War. Sound, Music, Trauma and Survival in Wartime Iraq*, Oxford: Oxford University Press

**Deleuze, Gilles** (1988): *Foucault*, Minneapolis: University of Minnesota Press

**Deleuze, Gilles** (1995): *Negotiations*, New York: Columbia University Press

**Deleuze, Gilles/Guattari, Félix** (1987): *A Thousand Plateaus*, Minneapolis: University of Minnesota Press

**Derrida, Jacques** (1974): *White Mythology*, in: New Literary History, Vol. 6, No. 1, On Metaphor, Baltimore: Johns Hopkins University

**Dolar, Mladen** (2006): *A Voice and Nothing More*, Cambridge MA: MIT Press

**Foucault, Michel** (1976): *Mikrophysik der Macht*, Berlin: Merve (my translation)

**Foucault, Michel** (1978): *The History of Sexuality Vol. 1*, New York: Pantheon Books

**Foucault, Michel** (1979): *The Life of Infamous Men*, in: Ibid. Power, Truth, Strategy, Sydney: Feral Publications

**Foucault, Michel** (1995): *Discipline and Punish*, New York: Vintage Books

**Genasys** (2020): *Products*, <https://genasys.com/ahd-products/>

**Genasys/LRAD Corporation** (2019): *BrochureDefense*

[https://genasys.com/wpcontent/uploads/2019/10/Brochure\\_Defense.pdf](https://genasys.com/wpcontent/uploads/2019/10/Brochure_Defense.pdf)

**Genasys/LRAD Corporation** (2016): *Brochure Law Enforcement*,

[https://genasys.com/wp-content/uploads/2015/05/LRAD\\_Brochure\\_Law\\_Enforcement.pdf](https://genasys.com/wp-content/uploads/2015/05/LRAD_Brochure_Law_Enforcement.pdf)

**Genasys/LRAD** Corporation (2017): *Case Study San Diego Police Department*,

[https://genasys.com/wp-content/uploads/2016/12/LRAD\\_Case-Study-San-Diego-PD-Crowd-Communications-at-Anti-Trump-Rally.pdf](https://genasys.com/wp-content/uploads/2016/12/LRAD_Case-Study-San-Diego-PD-Crowd-Communications-at-Anti-Trump-Rally.pdf)

**Genasys/LRAD** Corporation (2015): *White Paper*,

[https://genasys.com/wpcontent/uploads/2015/05/whitepaper\\_LRAD\\_Humanely\\_Resolving\\_Public\\_Safety\\_Situations.pdf](https://genasys.com/wpcontent/uploads/2015/05/whitepaper_LRAD_Humanely_Resolving_Public_Safety_Situations.pdf)

**Goodman**, Steve (2010): *Sonic Warfare*, Cambridge MA: MIT Press

**Jünger**, Ernst (1922): *Der Kampf als inneres Erlebnis*, Berlin: E.S. Mittler und Sohn (my translation)

**Kittler**, Friedrich (2014): *The Truth of the Technological World*, Stanford: Stanford University Press

**LaBelle**, Brandon (2011): *Acoustic Territories*, New York/London: Continuum

**Marx**, Karl (2002): *Theses on Feuerbach*, <https://www.marxists.org/archive/marx/works/1845/theses/theses.pdf>

**Nancy**, Jean-Luc (2000): *Being Singular Plural*, Stanford: Stanford University Press

**Nancy**, Jean-Luc (2003): *Corpus*, Zürich: Diaphanes (my translation)

**Ranciére**, Jacques (1999): *Disagreement. Philosophy and Politics*, Minneapolis: University of Minnesota Press

**Reik**, Theodor (1909): *Probleme der Religionsphilosophie, I. Teil: Das Ritual*, Leipzig/Wien: Internationaler Psychoanalytischer Verlag (my translation)

**Schafer**, R. Murray (1994): *The Soundscape*, Rochester, Vermont: Destiny Books

**Shannon**, Claude/**Weaver**, Warren (1964): *The Mathematical Theory of Communication*, Urbana: University of Illinois Press

**Serres**, Michel (1995): *Genesis*, Ann Arbor: The University of Michigan Press

**Sterne**, Jonathan (2003): *The Audible Past*, Durham/London: Duke University Press