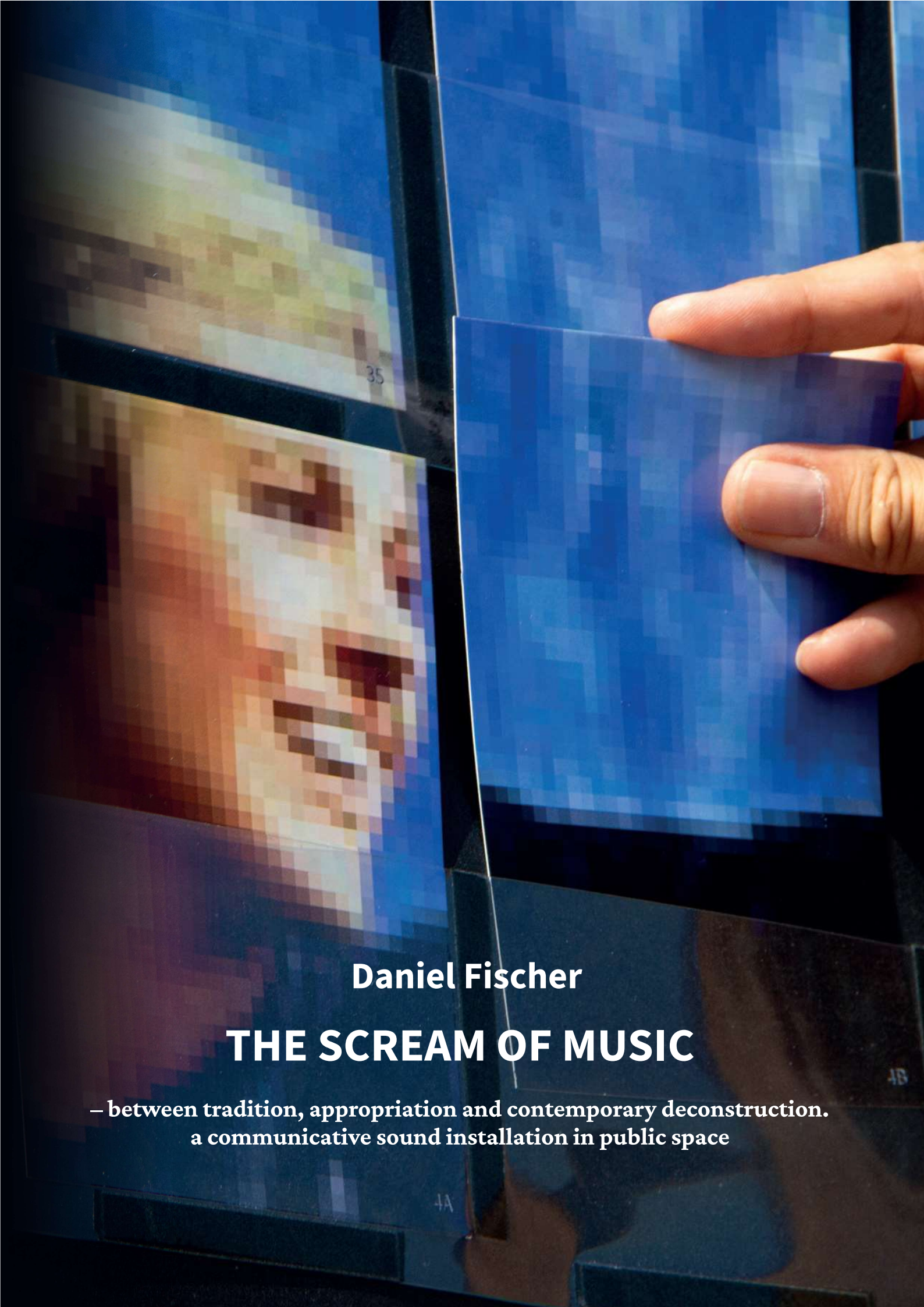


A hand is holding a blue card with a pixelated pattern. The background is a collage of pixelated images, including a yellow and white abstract shape, a brown and white abstract shape, and a blue and white abstract shape. The card is being held over the collage.

Daniel Fischer

THE SCREAM OF MUSIC

– between tradition, appropriation and contemporary deconstruction.
a communicative sound installation in public space

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Masterarbeit

zur Erlangung des akademischen Grades

Master of Arts (M.A.)

im Masterstudium

Interface Cultures

Eingereicht von

Daniel Fischer

m1575015

Angefertigt an der
Kunstuniversität Linz
am
Institut für Medien

Beurteiler

Univ.-Prof. Dr. Laurent Mignonneau

.....

Abgabefahr 2026

Datum der Approbation:

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Cover design: Eva Maria Dreisiebner (<https://777animation.com>)

Cover images: Eva Maria Dreisiebner

The Scream of Music

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Figure 1: The Scream of Music, installation view.

Photo credits: Eva Maria Dreisiebner

Abstract

This thesis examines how symbols of national identity change through processes of medial transformation and performative re-staging in historically charged spaces, using my artistic installation *The Scream of Music* as its central case study. The work translates an iconic image from the film *The Sound of Music*, a globally circulating symbol of Austrian national identity, into a chain of technical and performative transformations: image encoding, vocal performance (yodeling), directional sound transmission via a Long Range Acoustic Device (LRAD), algorithmic pattern recognition, and material reconstitution as a fragmented postcard image.

This research integrates theoretical analysis with artistic practice, drawing on cultural studies, media theory, political philosophy, and sound art. The conceptual framework builds on three interconnected perspectives: First, it engages with theories of identity as a narrative and communicative construct, particularly through the work of Anderson, Hall, Appiah, and Hecht. Second, it considers borders as biopolitical and medial formations, drawing on critical analyses by Balibar, Foucault, and Vaughan-Williams. Third, it approaches media as active agents of meaning production, informed by the media theories of McLuhan, Eco, and Lefebvre. Rather than merely illustrating these theoretical positions, the study tests and interrogates them through the concrete technical, spatial, and social conditions of the installation.

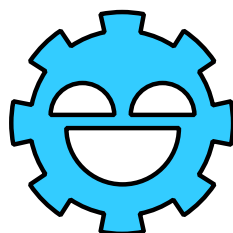
Beyond its analytical objectives, the thesis reflects on artistic research as a form of situated knowledge production. The realization of *The Scream of Music* involved extensive technical experimentation, interdisciplinary collaboration, and engagement with legal, social, and political constraints in public space. These processes proved to be not ancillary but constitutive of the research itself. The thesis argues that medial transformation can function as a critical method: by exposing the infrastructures, errors, and conflicts through which national symbols are produced, circulated, and contested, artistic practice becomes a means of generating knowledge about identity, power, and public space.

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Acknowledgments

This master's thesis and the associated artistic project would not have been possible without the support of numerous people.

My special thanks go to **Univ.-Prof. Dr.techn. Laurent Mignonneau** for his dedicated supervision of my master's thesis and valuable professional input. I also thank **Prof. Dr. Robert Pfaller**, **Univ.-Prof. Dr.phil. Anne von der Heiden**, **Univ.-Prof. Mag.art Manuela Naveau PhD**, **Univ.-Prof. Mag.art. PhD. Joachim Smetschka**, and **Univ.-Ass. Alexander Wöran, MA** for their stimulating discussions and critical perspectives, which significantly enriched my artistic and theoretical engagement.

For technical support, I thank **Sen.Art. Mag.art. Holunder Heiß** and **Mag.art. Matthias Narzt**, as well as the **team of the Media Workshop at the University of Art and Design Linz**, who assisted me with their expertise.

In realizing my project within the framework of the Ars Electronica Festival, I was able to draw on a great network: I thank **Adir. Silvia Leitner, BA** from the Events Department of the University of Art and Design Linz and the **team of the Ars Electronica Festival** for their organizational support and the opportunity to present my work in this inspiring context.

I am grateful to the **Developer Lab of Linz (dev/lol/)** for providing a creative and collaborative space that fostered technical experimentation and community exchange.

My heartfelt thanks go to **Eva Maria Dreisiebner, MA** not only for her tireless emotional support, but also for her creative work on pictures, video editing, design, and inserts. I thank **Andreas Fischer** for excellent project management, PR work, audio support, and social media management.

For their valuable contributions to the artistic realization, I thank **Maria Moling** for the audio samples, **Mehmet Çolak** for the audio sample effects, **Bernhard Pusch** (PuschTV) for the video recordings, **Martin Fischer** (Fa. Loracs) for providing the LRAD system, and **Joe** (Fa. janu-beschriftungen.at) for the professional printing.

During the setup and execution of the exhibition, I was actively supported by **Daniel, Aurel, Gabriel, Roman, Sarah**, and **Lisa Ackerl** – thank you for your tireless commitment.

I would also like to express my special thanks to the **Cultural Department of the City of Linz**, which played a key role in making this project possible.

Finally, I would like to thank everyone who contributed to the success of this work in various ways and who are not mentioned here by name.

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1. Introduction

This thesis developed out of my artistic work on *The Scream of Music* and from a sustained interest in how national identity is produced, mediated, and negotiated through cultural symbols and technologies. From the beginning, the project was conceived not only as an artwork but also as an inquiry: an attempt to understand what happens when a familiar symbol of national identity is displaced from its habitual media environment and subjected to a chain of technical, spatial, and performative transformations.

The central research question of this thesis—**how symbols of national identity change through their medial transformation and performative re-staging in a historically charged space**—is therefor inseparable from the artistic process itself. Rather than approaching this question from a purely theoretical distance, I chose to engage with it through practice. The installation *The Scream of Music* functions as both an artistic statement and a research instrument in which conceptual reflection, technical experimentation, and public encounter are tightly interwoven.

The title *The Scream of Music* operates on multiple levels, each reflecting a different dimension of the work's conceptual framework.

Most immediately, it references *The Sound of Music*, the 1965 film that serves as the iconic source material for the installation. By replacing 'Sound' with 'Scream', the title marks a deliberate shift in register. From the harmonious, domesticated notion of sound as melody and cultural heritage toward something more urgent, more violent, more difficult to ignore.

The 'scream' also points to the technological reality of the LRAD (Long Range Acoustic Device) itself. This is not a neutral speaker but a directional sound weapon capable of producing volumes up to 150 decibels, a level that can cause permanent hearing damage and physical pain. The LRAD's capacity for sonic violence is not incidental to the work but central to it. When a national symbol is transmitted through a device designed for crowd control and military operations, the scream becomes literal: what was once a gentle cultural signifier is amplified into something that can physically affect bodies across space.

But the scream extends beyond the technical apparatus. It also refers to the overwhelming presence of *The Sound of Music* in Austria's touristic and commercial landscape. Walking through Salzburg, one encounters an inescapable saturation of the film's imagery: tour buses, souvenir shops, staged photo opportunities, and constant media replay of its visual vocabulary. This commercial repetition functions as its own form of loudness. A relentless projection of a singular, sanitized version of Austrian identity that drowns out more complex, uncomfortable historical narratives. The

tourism industry's amplification of *The Sound of Music* is itself a kind of scream: insistent, penetrating, impossible to escape.

In this sense, the title encapsulates the work's core concern: how cultural symbols are not just represented but '*performed*' through media and infrastructure, and how this performance involves power, volume, and the capacity to occupy, or dominate, public space. *The Scream of Music* makes audible what is usually naturalized: that identity is always already amplified, transmitted, and weaponized.

In writing this thesis, I have aimed to follow established academic standards of research and citation while remaining attentive to the specific conditions of artistic research. The theoretical framework is based on extensive reading in cultural studies, media theory, political philosophy, and sound studies. Most of these texts, particularly works by German- and French-speaking authors, were read in their original German editions. Wherever authoritative English translations were available, I deliberately used these versions in the thesis in order to maintain terminological consistency and to situate the work within the Interface Cultures master program. All translations that are not taken from published English editions are used as paraphrases and marked as such. (American Psychological Association, 2017, para. 2) The reader can find the original German quotes in the Notes at the end of the thesis .

At the same time, this thesis reflects a learning process that unfolded through making. The realization of *The Scream of Music* required me to work across multiple domains: image processing, audio production, directional sound transmission, machine learning, and the legal and acoustic conditions of public space. Many of the most relevant insights emerged not from smooth execution but from moments of difficulty. Technical failure, environmental interference, misunderstandings in reception, and institutional constraints. These experiences challenged initial assumptions and sharpened the conceptual focus of the work. Rather than treating such moments as obstacles, I came to understand them as productive elements of the research itself.

Working on this project was both demanding and deeply rewarding. It involved long periods of technical experimentation, interdisciplinary collaboration, and negotiation with authorities, institutions, and publics. Simultaneously, it offered the opportunity to reflect critically on my own position as an artist working with politically charged technologies and symbols. The process reinforced my conviction that artistic practice can function as a rigorous mode of inquiry. One that does not merely illustrate theoretical concepts but actively tests them under real conditions.

The structure of this thesis follows this dual orientation. The second chapter develops the theoretical framework, focusing on identity as narrative and communicative construct, borders as biopolitical and medial formations, and media as active agents in the production of meaning. The third chapter situates *The Scream of Music* within a broader field of sound-based artistic practices in public space. The fourth chapter analyzes the artwork itself in detail, combining conceptual interpretation, technical description, and reflection on exhibition context and reception. The concluding chapter synthesizes these findings and reflects on medial transformation as a critical artistic method.

Ultimately, this thesis does not seek to provide a definitive account of national identity or media. Instead, it proposes *The Scream of Music* as a situated experiment, one that brings to light how symbols acquire meaning through media, infrastructures, and power relations, and how these meanings shift when they are exposed to transformation, error, and public contestation. In this sense, the work is as much about learning through making as it is about articulating theoretical insight.

2. Theoretical Framework - Identity, Border, Medium

The installation *The Scream of Music* is embedded in a dense network of national narratives, border politics, and media technologies. An iconic image from *The Sound of Music*, a globally powerful symbol of 'Austria' is translated into an acoustic sequence, transmitted across the Danube via Long Range Acoustic Devices (LRAD), and algorithmically reconstructed on the opposite side. To comprehend what is being negotiated in this constellation, a theoretical framework is necessary that interweaves three levels:

- Identity as a narrated and negotiated category,
- Border as a biopolitical and medial construction,
- Medium as an active agent of meaning production.

The following sections unfold these levels and connect them to the specific arrangement of *The Scream of Music*.

2.1 Identity as Narrative

National identity is not a natural state of aggregation but the result of ongoing narrative work. Benedict Anderson fundamentally shaped this perspective with his concept of the '*imagined community*.' He describes nations as '*imagined political community—and imagined as both inherently limited and sovereign*' (Anderson, 2016, p. 6). '*Imagined*' here does not mean '*fictitious*' in the sense of unreal, but rather indicates the fact that the bond of the nation lies in the imaginary: people experience themselves as part of a collective '*we*,' even though they will never personally meet the vast majority of their '*fellow citizens*.' This '*we*' must be continuously produced and re-new through symbols, rituals, media, and institutions.

Anderson draws a direct parallel between modern subjects and nations: "*As with modern persons, so it is with nations. [...] engenders the need for a narrative of 'identity'*" (Anderson, 2016, p. 205). Identity, both individual and collective, depends on narratives. Nations exist by narrating themselves: in textbooks and films, in tourist images, commemorative ceremonies, anthems, logos, mascots, and postcard motifs.

Stuart Hall shifts this insight even more strongly to the level of discourse. For him, "*cultural identities [...] are the points of identification, the unstable points of identification or suture, which are made, within the discourses of history and culture. Not an essence but a*

positioning" (Hall, 1990, p. 395). In this understanding, identity is not an inner substance but a suture, a point that temporarily holds together subject, history, and culture. It remains unstable and must be constantly re-established.

Hall emphasizes that meaning fundamentally rests on a process of endless displacements. For sense to emerge in a concrete situation, a provisional stop is needed: *"if signification depends upon the endless repositioning of its differential terms, meaning, in any specific instance, depends on the contingent and arbitrary stop—the necessary and temporary 'break' in the infinite semiosis of language"* (Hall, 1990, p. 397). Identity, such as 'Austrian,' 'bourgeois,' 'touristic', is such a temporary interruption. It appears 'natural' but, as Hall emphasizes, is always 'strategic' and contingent (Hall, 1990, p. 397).

Against this background, Kwame Anthony Appiah critiques classical models that attempt to derive national identity from objective characteristics: origin, language, culture. He points at one of his big questions: *"there's something wrong with our models here, too, starting with answers we've given to fundamental question: what makes a bunch of people into a nation?"* (Appiah, 2019, p. XV). His answer shifts the focus from objective to subjective conditions: *"To be a nation, it is not enough to meet an objective condition of common descent; you have to meet a subjective condition, a condition that lies in the hearts and minds of members"* (Appiah, 2019, p. 76).

Being a nation is less a question of 'origin' or 'culture', than of shared ideas, self-images, and stories. Meanwhile, Appiah marks the role of the external gaze: *"Being a people is not just a matter of how you think of yourselves. [...] Identity [...] is negotiated between insiders and outsiders"* (Appiah, 2019, p. 79). Identity therefor emerges in the tension between self-description and external attribution and so it is a space of negotiation, not property.

Already in *Cosmopolitanism*, Appiah describes how such identity processes condense in a global communication space. Only with the *"single web of trade and a global network of information"* has a situation emerged in which *"each of us can realistically imagine contacting any other of our six billion conspecifics" and sending them "a radio, an antibiotic, a good idea" as well as "a virus, an airborne pollutant, a bad idea"* (Appiah, 2007, p. X–XI). Under these conditions, identities are increasingly formed transnationally; national symbols are part of global circulations.

In *The Lies That Bind*, Appiah explicitly places identity at the center of political thought: *"The picture of self-development we've been tracing puts identity at the heart of human life. A theory of politics, I am suggesting, ought to take this picture seriously"* (Appiah, 2023, p. 26). Labels and classifications are crucial here: *"Once labels are applied to people, ideas about people who fit the label come to have social and psychological effects"* (Appiah, 2023, p. 66). Labels are not harmless; they structure perception, feelings, and options for action.

To analyze the logic of such social identities, Appiah introduces the abstract variable "L," which can stand for any category such as 'women,' 'Blacks,' 'gays,' 'butlers,' 'English.' The relevant questions then are: What counts as 'appropriate' action for an L? How do these expectations shape one's own life?

Appiah writes: *"Ideas about the ways people conceive of themselves and their projects shape their lives by the thought that something is an appropriate way of acting for an L; identification*

plays a role in shaping the way the agent makes decisions about how to conduct a life" (Appiah, 2023, p. 66).

And further: *"Thinking of yourself as an L shapes your feelings; perhaps it shapes your actions so that you sometimes do something as an L"* (Appiah, 2023, p. 66). Identity appears as a script that guides actions and frames emotions.

At this point, Michael Hecht's *"communication theory of identity"* (CTI), as presented by Littlejohn and Foss, can be woven in. Hecht shifts the perspective once again: away from identity as an *'inner state'* toward identity as something that emerges through communication at different levels. Littlejohn and Foss summarize Hecht's position as follows: Identity is *"a joining point between the individual and the society, and communication is the link that allows this intersection to occur"* (Hecht, as cited in Littlejohn & Foss, 2008, p. 89). Identity is particularly that intersection where personal experience and social order meet and where communication is the medium of this encounter.

Hecht differentiates identity into four layers that interact with each other. Littlejohn and Foss summarize this in *"Theories of human communication"* as following:

"Hecht breaks identity down beyond simply the personal and ascribed dimensions. These two dimensions interact in a series of four tiers or layers. The first tier is the personal layer, which consists of your sense of yourself within a social situation" (Littlejohn & Foss, 2008, p. 89).

This concerns self-images, memories, values. How one understands oneself in a concrete situation. Followed by the second level of communication: *"The second tier is the enactment layer, or what others know about you based on what you do, what you have, and how you act"* (Littlejohn & Foss, 2008, p. 89). Identity is here literally *'performed'* in language, clothing, gestures, symbolic objects, in professional roles, online profiles, and artistic gestures.

In combination with the *'others'* the individual gets in relation: *"The third tier of your identity is the relational, or who you are in relation to other individuals. Identity gets constructed in your interactions with them"* (Littlejohn & Foss, 2008, p. 89). Identity is negotiated in relationships: as friend, opponent, artist, citizen. Who I *'am'* depends on what relationships I stand in and how these relationships are communicatively shaped.

The fourth level is an aspect of society: *"Finally, the fourth tier of identity is the communal layer, which is attached to a larger group or culture"* (Littlejohn & Foss, 2008, p. 89). Here people locate themselves in collectives: as members of a nation, a scene, a religion, a milieu. At this level, narratives such as *'we Austrians,' 'we Europeans,'* or *'we Sound of Music tourists'* emerge.

Littlejohn and Foss bring these thoughts into a concise sentence: *"Communication is the means by which identity is established and the mechanism by which it changes as well"* (Littlejohn & Foss, 2008, p. 89). In connection with Hecht, it becomes clear: identity is not merely what I *'am'* on the inside, but what emerges in communication processes at the personal, performative, relational, and collective levels.

Placing Anderson, Hall, Appiah, and Hecht side by side yields a consistent picture:

- Anderson shows that nations as imagined communities are based on narratives and symbols.
- Hall makes clear that identity is always a temporary positioning in an open field of meaning.
- Appiah elaborates that labels and self-identifications structure actions and feelings.
- Hecht and the CTI unfold these processes across four intertwined levels of communication.

For *The Scream of Music*, this framework is central. 'Austria' appears here not as a homogeneous entity but as a network of personal identifications, performative acts, relational attributions, and collective narratives. The famous image from *The Sound of Music* functions at the communal level as a symbol of a supposedly 'authentic' Austrian identity. At the same time, it shapes the personal and relational levels. For instance, among tourists who approach the country through this film, or among residents who distance themselves from this projection.

2.2 Border as Political-Medial Construction - Biopolitics and LRAD

The logic of narration continues at borders. Étienne Balibar develops a central concept for this: modern communities are, for him, imaginary constructions stabilized by institutions and narratives. He writes: *"Every social community reproduced by the functioning of institutions is imaginary, that is to say, it is based on the projection of individual existence into the web of a collective narrative"* (Balibar, 1991, p. 93). Nations are in this way based on the projection of individual life courses into a collective 'we' that is only produced through schools, media, administration, and law.

Balibar emphasizes that individual identity is always anchored in a historical field: *"All identity is individual, but there is no individual identity that is not historical or, in other words, constructed within a field of social values, norms of behaviour and collective symbols"* (Balibar, 1991, p. 94).

The nation bundles such values, norms, and symbols, and it does so through concrete border demarcations. These run not only externally but also structure who can be considered 'belonging' internally: *"The individuals destined to perceive themselves as the members of a single nation are either gathered internally from diverse geographical origins [...] or else are brought mutually to recognize one another within a historical frontier which contained them all"* (Balibar, 1991, p. 94).

To grasp this process more closely, Balibar introduces the concept of *"fictive ethnicity"*: *"I apply the term 'fictive ethnicity' to the community instituted by the nation-state [...] no nation possesses an ethnic base naturally, but as social formations they are nationalized"* (Balibar, 1991, p. 96). 'Ethnicity' is understood here not as a starting point but as a product of

nation-state practice. The nation needs this fiction because without it, it would appear "*precisely as an idea or an arbitrary abstraction*" (Balibar, 1991, p. 96). Borders in this sense mark not only territory but also secure an imagined ethnic and cultural unity, externally and internally.

Michel Foucault shifts the analysis from symbolic orders of belonging to the techniques by which modern states manage life. In *Society Must Be Defended*, he distinguishes between disciplinary power, which "*centers the body, produces individualizing effects, and manipulates the body as a source of forces that have to be rendered both useful and docile,*" and a second technology "*which is centered not upon the body but upon life: a technology which brings together the mass effects characteristic of a population, which tries to control the series of random events that can occur in a living mass*" (Foucault, 2003, p. 243). This second technology "*aims to establish a sort of homeostasis, not by training individuals, but by achieving an overall equilibrium that protects the security of the whole from internal dangers*" (Foucault, 2003, p. 244).

Foucault refers to this second modality of power as biopolitics. Its logic no longer hinges on dramatic displays of sovereign violence but on the continuous regulation of life processes: birth rates, mobility, health, security, and risk. In *Security, Territory, Population*, he describes a "*state of government that is no longer essentially defined by its territoriality, by the surface occupied, but by a mass: the mass of the population, with its volume, its density, and, for sure, the territory it covers*" (Foucault, 2009, p. 110). Borders, within this framework, become concentrated sites where this management of life is enacted and intensified.

Nick Vaughan-Williams extends this Foucauldian shift to the contemporary European border regime. He emphasises how the classical sovereign prerogative "*to take life or let live*" has been replaced by a more ambivalent biopolitical power that "*fosters life or disallows it to the point of death*" (Vaughan-Williams, 2017, p. 36). The figure of the "*irregular migrant*" crystallizes this ambiguity: a subject "*who can never be sure whether they will be cast as a potential security risk or a life in need of saving*" (Vaughan-Williams, 2017, p. 43). Border governance, produces lives that are simultaneously securitized and humanitarianized, managed as threats and as vulnerable bodies.

This ambivalence also shapes the question of agency. Following Puggioni, Vaughan-Williams identifies the *voice* of migrants as a fragile yet significant means of resisting exceptionalism: "*the voice 'as a weapon against abuses' and the possibility of contesting a politics of exceptionalism*" (Puggioni, as cited in Vaughan-Williams, 2017, p. 77). Yet the metaphor of voice as a '*weapon*' becomes strikingly ironic when set against the material realities of contemporary border technologies. Human vocal expression embodied, precarious, easily silenced, stands in sharp contrast to the up to 160 dB projection power of devices such as the LRAD, whose acoustic force is designed not to communicate but to overwhelm. This dissonance exposes a central tension of border biopolitics: the state amplifies its own sonic power to produce compliance, while migrant voices persist only as fragile acts of insistence within an environment engineered to drown them out.

Against this background, the role of Long Range Acoustic Devices (LRAD) in border control takes on particular significance. LRADs are originally military-developed devices

that function on the one hand as directional loudspeakers for announcements, and on the other hand, in '*deterrent tone*' mode, emit extremely loud, painful acoustic impulses. Police and military models reach sound pressure levels clearly in the range of immediate hearing damage; acoustic professional associations locate the pain threshold far below this. LRADs, fit into an arsenal of so-called '*less-lethal weapons*' that are not supposed to kill but produce extreme physical effects.

Patel (2019) shows in the case of *Edrei v. Maguire* how U.S. courts legally assess the use of an LRAD 100X against demonstrators as violence. At Black Lives Matter protests in New York, the '*deterrent tone*' was deployed 15–20 times within a few minutes from close distance; the plaintiffs reported long-lasting symptoms such as tinnitus, dizziness, and hearing loss. The Second Circuit Court of Appeals determined that the use of a device with "*incapacitating and painful effects*" in "*area denial*" mode constitutes a form of physical force and that a "*reasonable*" police officer must know that excessive use violates clearly established rights (Patel, 2019).

That LRADs appear in European border control is shown by Chantal DaSilva: "*the EU Commission expresses concern about the use of such devices at the Greek-Turkish border, where they are intended to deter asylum seekers from crossing the border with extremely loud acoustic impulses*" (DaSilva, 2021). Euro-Med Human Rights Monitor criticizes these technologies as "*dangerous, experimental and discriminatory*" and warns that they are part of a development transforming the EU into a "*digital fortress*" (Euro-Med, 2021). LRADs are there embedded in an ensemble of digital border technologies, from AI-supported cameras to sensor infrastructures to bio-metric recognition systems, that aim to identify, control, and deter migrants early.

Isobel Cockerell describes the Evros border area (Greek-Turkish) as a highly militarized zone and communicative "black box" where journalists, NGOs, and protection seekers have hardly any access. The LRAD 450XL tested there reaches levels up to 150 dB values at which inner ear structures can be irreparably damaged (Cockerell, 2024). LRADs appear here as symbolically and physically effective markers of the border: they create an acoustic horizon where belonging abruptly ends.

Henri Lefebvre offers a particularly useful lens for understanding how borders come to appear as natural, self-evident features of political reality. For Lefebvre, political space is never produced by '*material violence*' alone. Even when force, law, and territorial control seem to be the decisive factors, they remain interwoven with symbolic and representational practices. As he writes: "*Political space is not established solely by actions (with material violence generating a place, a legal order, a legislation): the genesis of a space of this kind also presupposes a practice, images, symbols, and the construction of buildings, of towns, and of localized social relationships*" (Lefebvre, 1991, p. 245). In other words, space is never merely administered. It is continually imagined, narrated, and mediated.

Seen from this perspective, borders are not just lines enforced through security infrastructures. They are also cultural and medial constructs. Their meaning is shaped by images circulated in the press, by political rhetoric, by surveillance footage, by humanitarian campaigns, and by the spectacularized aesthetics of crisis. Nowhere is this clearer than at the European external borders, where visual and sonic representations:

coastguard videos, thermal drone imagery, satellite photos of migrant boats, or the amplified commands of acoustic deterrence devices, form a central part of how “Europe” perceives and governs itself. The border is therefor produced twice: materially, through enforcement technologies, and symbolically, through the media ecologies that render these technologies visible and intelligible to the public.

Lefebvre’s insight allows us to understand the European border not only as a site of geopolitical tension but as a mediated space whose reality is co-constructed by images, sounds, and narratives. In this sense, the border becomes a kind of media product, an artifact of representation as much as of security policy.

Christian Schmid takes up Lefebvre’s approach when he describes the city: the city is a product that only emerges from the complex interplay of spatial practice, representation of space, and spaces of representation, or of what is perceived, conceived, and experienced. (Schmid, 2005, p. 25)¹

Linz and the location where *The Scream of Music* takes place, is such a space: traffic surface, landscape image, the Danube as historical border, tourist backdrop, and acoustic resonance body.

2.3 Medium, Mediality, Signal Transformation

The specific role of the medium in this constellation can hardly be discussed without Marshall McLuhan. His famous phrase “*The medium is the message*” is more than a slogan. McLuhan writes: “*The medium is the message. This is merely to say that the personal and social consequences of any medium—that is, of any extension of ourselves—result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology*” (McLuhan, 1964, p. 1). New media change the scale, tempo, and pattern of everyday life and there for the way people experience the world.

Nathalie Moulon builds on this when she formulates in relation to our culture, “*the real message is the medium itself, that is to say, simply that the effects of the medium on the individual or on society depend on the change of scale produced by each new technology*” (Moulon, 2018, p. 334). The medium itself as technical dispositif and as social arrangement becomes the actual message.

Umberto Eco shifts the perspective even more strongly to the side of reception. In *Über Gott und die Welt*, he describes mass media as systems that do not transport ideologies but are themselves the ideology, because the incessant, uniform bombardment of the media levels out content and places recipients in a situation of disempowerment (Eco, 1985, pp. 146–147)². In parallel, he insists that the receiver always retains a remainder of freedom: The receiver always has a remainder of freedom when receiving the message, namely I say ‘*differently*,’ not ‘*wrongly*’ (Eco, 1985, p. 149)³.

Eco conceptualizes communication as a dynamic interaction between signal, noise, code, and context. The meaning of a message, he argues, emerges only through the interpretive framework that recipients apply to it. Because audiences draw on different codes depending on their social situations, the same message can give rise to multiple interpretations. For Eco, this variability is not a marginal effect but the defining principle of mass communication: Interpretive variability is the fundamental law of mass communication. Its messages reach very different social situations with very different codes (Eco, 1985, pp. 151–152)⁴.

In his engagement with information theory, Eco also distinguishes between '*meaning*' and '*information*': meaning requires '*order*' and '*redundancy*,' while information grows with unpredictability, ambiguity and disorder. (Eco, 1990, p. 168)⁵ Noise is thereby a disturbance that occurs in the channel and can change the physical structure of the signal, so that the extinguishing of the light bulb is mistakenly understood as a message. (Eco, 1990, p. 93)⁶

With regard to sound, Eco refines these considerations when he writes that a '*tone*' is not merely a physical event but a '*product of intention*' that only appears as a tone because it is recognized as such by the receiver and distinguished from all other vibration possibilities. (Eco, 1990, pp. 130–131)⁷ The actual meaning arises from the relationship between signal and receiver, because, semantic assignment is never completely contained in the signal but results from the situation and the interpretive activity of the receiver. (Eco, 1990, pp. 132–133)⁸

Kendall Wrightson condenses this for extreme situations of hearing when he writes that under certain conditions, sounds become "*anti-information: 'noise'*" (Wrightson, 2000, p. 2). Particularly in the context of LRAD deployment, this flip from information to noise and pain becomes visible: the channel is over-driven, and the medium becomes physically precarious.

The Scream of Music also plays with the transition from analog to digital medium and back, which also changes the way the message, the medium and the communication can be interpreted.

Gerhard Johann Lischka and Peter Weibel describe how digital techniques further intensify the '*free floating of signifiers*': Digital technologies have further enhanced the polylogical nature of free-floating signifiers. While analog technology can still be decoded relatively clearly, digital technology is a metamorphosis that transfers information in energetic form. It can be perceived referentially and non-referentially. This circumstance is also responsible for the fact that digital art has such a hard time being recognized as such, because the digital itself already appears masterfully created, as if by magic. (Lischka & Weibel, 2004, p. 10)⁹

At the same time, media compete with art as Lischka and Weibel explain: However, this auratization in a very ordinary way already has an effect as mediatization as such, because whatever the media do and show is an exaggeration or detachment from everyday life, from life as such, which is thereby removed. And this is where the media

compete with art, forcing it to expand into the diversity of the media. This expansion has become part of the apparent boundlessness of art. (Lischka & Weibel, 2004, p. 8–9)¹⁰

Thomas Veigl pursue this thought further when they understand software and code as a genuine medium. They refer to tendencies to regard software as the "essence" of new media and to stylize "*knowing software*" as a form of enlightenment (Grau & Veigl, 2011, p. 178).

Dealing with symbols like the picture used in *The Scream of Music*, we have to take a deeper look into theories of communication and interpretation and there Littlejohn and Foss offer a complementary symbolic-theoretical framework that builds directly on Susanne Langer's philosophy of symbolization. For them, symbols are the primary means through which humans communicate concepts, general ideas, or forms. As they summarize, "*A symbol or set of symbols works by communicating a concept, a general idea, pattern, or form. [...] A symbol is 'an instrument of thought'*" (Littlejohn & Foss, 2008, p. 106). While signs simply signal the presence of something, much like a command that prompts a dog to perform an action, symbols enable people to think about what is not immediately present. They therefor function at a conceptual level, allowing individuals to abstract, imagine, and interpret beyond the concrete world.

This symbolic capacity is, as Littlejohn and Foss emphasize, "*central to human life*," because "*the process of symbolization is as important to humans as eating and sleeping*." Human beings orient themselves toward their physical and social environments not merely through perception but through the meanings they construct symbolically (Littlejohn & Foss, 2008, p. 106). These meanings involve both denotation, the shared or commonly agreed-upon reference, and connotation, the personal and affective associations that individuals attach to a symbol. Langer's account of abstraction further deepens this framework: as humans generalize from concrete experiences, symbols become increasingly broad and schematic, yet continue to structure how people understand the world.

Language exemplifies this through what Langer calls discursive symbolism: the ability to combine symbols into sentences and propositions that form complex pictures of reality. A single word evokes a basic conception, but its arrangement with other words produces a unified, meaningful scene. Simultaneously, Langer distinguishes discursive from non discursive or presentational symbolism, which operates through forms such as art, music, or rituals that convey meaning holistically rather than sequentially. These forms are particularly suited for expressing emotional, existential, or otherwise ineffable dimensions of human experience.

Littlejohn and Foss draw on this distinction to argue that presentational symbols often communicate the deep structure of human experience more effectively than linguistic ones. Their reading of Van Gogh's *Still Life with Open Bible* exemplifies this point: while the painting denotes a Bible, a candle, and a novel, its connotative resonance reflects Van Gogh's personal engagement with themes of life, death, and religion. The artwork functions as a symbol that processes and communicates emotional and biographical meaning beyond what language alone could capture (Littlejohn & Foss, 2008, p. 106).

Within this broader symbolic framework, communication emerges as the very medium through which identity is formed and transformed. Because people understand the world and themselves through symbolic processes, identity cannot be conceived as pre-existing communication. Rather, as Littlejohn and Foss state explicitly, "*communication is the means by which identity is established and the mechanism by which it changes as well*" (Littlejohn & Foss, 2008, p. 89). Symbolic action, whether discursive or presentational, is therefor constitutive of identity: it is how individuals interpret their experiences, negotiate meanings in relation to others, and participate in cultural forms that shape collective belonging.

Back to the medium of sound, Dominique Moulon describes sound as a transversal medium that connects practices, spaces, and technologies: "*the sound medium is transversal to multiple practices, as is the digital medium that plays a major part in the de-compartmentalisation between these practices*" (Moulon, 2018, p. 230). In nocturnal outdoor spaces, particularly in urban contexts, experimental fields emerge "*at the scale of our interfaced and connected cities, where the act of shaping the urban landscape is sometimes political*" (Moulon, 2018, p. 333). There, it is no longer about 'stable' monuments of established power but about "*unstable monuments capable of accounting for the relativity of human relations in public life*" (Moulon, 2018, p. 333).

2.4 The Sound of Music as Identity Symbol

The Sound of Music was released in 1965 and directed by Robert Wise, based on the 1959 Broadway musical by Richard Rodgers and Oscar Hammerstein II. The film tells the story of Maria, a young novice who becomes governess to the seven children of the widowed Captain Georg von Trapp in Salzburg in 1938, shortly before the Austrian Anschluss to Nazi Germany. The narrative combines romance, family drama, and political resistance, culminating in the von Trapp family's escape across the Alps to Italy.

The film became one of the most commercially successful productions in cinema history, winning five Academy Awards including Best Picture and Best Director. Its famous songs: 'Do-Re-Mi,' 'My Favorite Things,' 'Edelweiss,' and the title song 'The Sound of Music' became cultural touchstones. While the film achieved worldwide success, its reception in Austria was notably ambivalent: Austrian audiences often viewed it as a kitsch-laden, historically inaccurate romanticization that glossed over the complexities of the Nazi era.

Despite, or perhaps because of, this domestic ambivalence, *The Sound of Music* became the primary lens through which international audiences encountered Austria. The film's sweeping alpine landscapes, baroque architecture, and folkloric elements created a powerful visual and emotional vocabulary that continues to shape Austria's global image more than half a century after its release. (Wikipedia, 2025)

Within this structure, *The Sound of Music* plays a key role in my work. The film is not only a successful Hollywood musical but a globally effective generator of Austrian identity images. The opening sweeps over the Alps, the baroque backdrop of Salzburg, the combination of family idyll, music, and supposedly timeless landscape romanticism have become standard motifs of what is internationally perceived as 'Austrian.'

Gundalf Graml has analyzed in detail how a touristic and cultural dispositif forms from this film. In an early essay, he describes the Sound of Music tours in Salzburg as "*performative space for the construction and narration of Austrian national identity*" (Graml, 2005, p. 192). Tourists enter not a neutral city but a stage already pre-structured by the film. Authenticity here is derived less from historical facts than from emotional and sensory impressions: "*'Reality' and 'authenticity' here are the result more of correlating emotional and sensory impressions than of historical facts and physical characteristics*" (Graml, 2005, p. 197).

The various versions of Maria, as a historical figure, a film figure, a tour guide figure, become "*figures of authentication*" of Austrian national space (Graml, 2005, p. 199). This rearrange what people think about Austria and what they imagine. And for sure this was used not just in commercials but also to reshape the picture of Austria. But: "*Often, the ambiguous state of the nation becomes most visible in the attempts to 'fix' the historical meaning of places that constitute national identity*" (Graml, 2005, p. 200).

In his later works, Graml locates this motif in the context of Austrian postwar history. He recalls that "*authors such as Ingeborg Bachmann, Thomas Bernhard, Franz Innerhofer, Felix Mitterer, or Elfriede Jelinek have criticized touristic images of Austria as a 'Potemkin facade' with which political, cultural, and social elites cover up participation in National Socialism*" (Graml, 2020, p. 1–2). Polemical attributions in which Austria appears as a '*touristic banana republic*' and Austrians are described as '*pirate-like*' beneficiaries of naive tourists or as '*servile*' hosts have contributed to a more critical view of the social effects of tourism but have also generated stereotypical counter-images (Graml, 2020, p. 2). Graml therefor advocates seeing tourism not only as an exploitative relationship but as a "*discursive arena for both the formation and the analysis of (post)modern identity processes*" (Graml, 2020, p. 2).

In the case of *The Sound of Music*, he shows that the film is embedded in a longer tradition of romantic landscape painting, city views, and touristic imaginaries. The Hollywood production assembles what earlier images produced as individual still lifes into a stream of moving images: "*In many ways, The Sound of Music film's visual representation of the city [Salzburg] is a repetitive enactment of the perspectives captured by the romantic painters*" (Graml, 2020, p. 243). At this point, Graml takes up Clifford Geertz's formula "*that it is indeed the 'copy that originates'*" (Geertz, 1986, as cited in Graml, 2020, p. 245): the copy, the film, becomes the source of what later counts as the 'original' of Austrian identity.

The repeated manifestations of the Sound of Music narrative in films, tours, merchandising, media citations, show "*how the connection between tourism and Austrian identity narratives has adapted to twenty-first century conditions*" (Graml, 2020, p. 244). Despite the temporal distance from the Nazi era, its legacy remains effective: "*the legacy*

of Austria's collaboration with National Socialism continues to shape Austria's national identity narrative" (Graml, 2020, p. 244). *The Sound of Music* has become a "major discursive terrain for debating and making visible this historical legacy with and for younger generations of Austrians" (Graml, 2020, p. 245).

In this constellation, the theoretical lines unfolded in this chapter become visible: Anderson, Hall, and Appiah make clear that national identity exists only through narratives, positionings, and labels; Balibar, Foucault, and Vaughan-Williams show that borders are biopolitical and media-supported arrangements that regulate life; McLuhan, Eco, Lischka & Weibel, Moulon, as well as Littlejohn & Foss clarify that media and symbols themselves shape reality. *The Scream of Music* connects these levels by sending a national symbol through a medium that is simultaneously a communication tool and a weapon, and therefor intertwining identity, border, and medium in a single, concrete experimental arrangement.

The installation takes up the symbol as a picture and shifts it into another enactment layer: instead of appearing as a visual motif in a film or on a postcard, the image is encoded in yodeling, transmitted via a LRAD sound speaker, and algorithmically reconstructed on the other side. This changes the way identity is communicated at all four levels: the self-image ('*personal layer*') of the yodeling person, the performative action ('*enactment layer*'), the relationship between the artwork, the city, the Ars Electronica festival and its visitors, as well as the Danube as natural border ('*relational layer*'), and what 'we' as a community narrate about Austria, borders, and sound ('*communal layer*'). Identity becomes not only the subject of the work but its actual material.

3. Critical Transformations: Sound Interventions in public space

3.1 LRAD as an Artistic Medium – Samson Young: Canon (2015–2016)

<https://www.thismusicisfalse.com/>



*Figure 2: Samson Young, Canon (2015–2016), installation view.
photo credits: Simon Vogel, Cologne*

Samson Young's artwork *Canon* (2015–2016) presents a critical examination of mobility, power, and control, utilizing the Long Range Acoustic Device (LRAD) as an artistic medium. The installation, presented at Art Basel 2016, operates on multiple levels of meaning: while the term '*canon*' can refer to the musical form in which a theme is repeated and offset, the LRAD functions as a '*sound cannon*', originally conceived as a control instrument for dispersing bird flocks and crowds.

Young stands in the uniform of Hong Kong's colonial police circa 1979 on an eight-meter-high lift platform, emitting bird calls that are projected via LRAD into a designated exhibition space. This technical mediation is deliberately chosen and references a historical trauma: in 1979, the cargo ship *Skyluck*, carrying 3,000 Vietnamese refugees, requested entry to Hong Kong harbor. Colonial authorities refused, and the ship was held offshore for twenty-three weeks—a floating prison. Young creates a scenario in which bird calls, free, mobile, unhindered, are instrumentalized to exercise control. The receiving space is sparsely furnished with a metal bench named "Skyluck" and a red plastic basin like those provided to refugees for basic needs.

The work problematizes fundamental concepts of globalization and neoliberalism: while capital and birds fly freely across borders, humans are bound to national territories. Young uses the formal abstraction of sound, his LRAD-projected medium, to reveal a material, historical reality. The installation at Art Basel, a center of the global art market, makes clear that '*freedom*' is a selective privilege granted only to those whose movement is legitimized by capital. Young thus combines avant-garde techniques of artistic defamiliarization (following Shklovsky) with a political analysis of power, border regimes, and the exploitation of technology for control and exclusion.

Samson Young's *Canon* is central to my own work because it understands the LRAD not merely as a technical tool, but as a historically and politically charged medium. Similar to *The Scream of Music*, an originally military control instrument is removed from its functional context and transferred into an aesthetic situation in which power relations, mobility, and border regimes become audible. Young's work reinforces my approach of not using the LRAD as a neutral transmission technology, but as a semantically '*heavy*' object whose history and political implications remain inseparably connected to the transmitted sound.

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3.2 National Identity & Sonic Encoding – Lawrence Abu Hamdan

<https://lawrenceabuhamdan.com/>



Figure 3: Lawrence Abu Hamdan, *Earshot* (2016), installation view.
photo credits: Helena Schlichting

Lawrence Abu Hamdan works as a forensic artist, practicing what he calls '*forensic listening*'—an approach that uses sound and audio as tools for uncovering injustice, analyzing power, and reconstructing memory. His works focus on the mediation of language, accent, and national identity through states and technological systems, particularly how audio forensics and accent analysis are deployed to regulate borders, asylum, and citizenship.

In early projects like *The Freedom of Speech Itself* and *Conflicted Phonemes* (both 2012), Abu Hamdan examined methods governments use to verify asylum applicants: so-called '*refugee detectives*' instructed refugees to speak into recording devices while other immigrants analyzed their phonemes to identify '*false statements*.' These systems are fundamentally flawed, as accents are not stable markers of origin or identity. This pseudo scientific method led to the rejection of hundreds of asylum applications from Somalis in the Netherlands and other countries.

Abu Hamdan also explores subtler forms of acoustic control. *The Hummingbird Clock* (2016) exposes the hum of the British electricity grid, which the Metropolitan Police uses to verify evidence and timestamp recordings, a form of everyday, invisible surveillance

that Abu Hamdan democratizes through a public website. His monumental series on Saydnaya prison is based on interviews with freed prisoners of a Syrian military detention facility who experienced their cells blindfolded but reconstructed the architecture through acoustic memory. Abu Hamdan uses '*acoustic profiling*' and '*echo profiling*' to make this limited knowledge world experienceable.

Lawrence Abu Hamdan's practice of '*forensic listening*' is particularly relevant to my work, as it demonstrates how sound, voice, and accent become instruments of state border demarcation. *The Scream of Music* takes up this logic by encoding national identity not visually but acoustically and transmitting it across distance. Abu Hamdan's works sharpen my understanding that sound is never merely expression, but can always also be evidence, a moment of suspicion, or a control signal. An ambivalence that is consciously activated in the performative act of yodeling across a symbolically and politically marked border.

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3.3 Making Invisible Infrastructures Audible – Christina Kubisch

<https://christinakubisch.de/>



Figure 4: Christina Kubisch, *Electrical Walks* (2004–ongoing), participatory sound installation. Photo credit: Christina Kubisch.

Christina Kubisch's artistic practice involves making the invisible electromagnetic infrastructures of our environment audible. Since 2003, the Berlin-based artist and composer has conducted her *Electrical Walks* through various cities. A project that invites people to explore the hidden electromagnetic landscape of their surroundings while wearing special headphones that translate electromagnetic signals into sound.

The functionality is technically elegant: Kubisch developed specially constructed headphones that receive electromagnetic fields and convert them into audible sound. She then maps geographic territories and identifies '*hot spots*', locations with particularly strong or interesting electromagnetic signals such as ATMs, security systems, electronic cash registers, subway systems, microwaves, and transmission towers. The artist creates specialized maps and invites the public to undertake these walks themselves, thereby perceiving their urban environment with completely new acoustic senses.

The project has experienced over 90 iterations worldwide: Kubisch has conducted *Electrical Walks* in Germany, England, France, Ireland, Japan, Latvia, Sweden, Switzerland, Slovakia, Spain, Taiwan, and the USA. The recorded sounds range from neon signs to subway systems, security gates, and trams. At ZKM in Karlsruhe, Kubisch

discovered particularly fascinating electromagnetic sources in the museum's old and new server rooms, which she later integrated into her composition "*Out of Sight*" (2023) is a three-part work that functions like '*abstract images*' with overlapping sound surfaces.

Kubisch's innovation lies in breaking down the dichotomy between the '*invisible*' and the '*audible*.' She reveals that technology is not simply '*invisible*' because it is not seen. It is permanently present and active, just not perceptible to our biological sense organ of the ear. Through her practices, the environment is re-semanticized: the hum of an electricity grid, normally ignored or subliminally perceived, becomes material for artistic experience. This leads to critical reflection on surveillance, infrastructure, and the media layers that organize our everyday space, an aesthetics of attention that makes the hidden accessible.

Christina Kubisch's Electrical Walks are formative for my work insofar as they show how invisible technical infrastructures can be made experienceable through sonic translation. *The Scream of Music* also operates with such a shift in perception: an image is transformed into sound, a familiar symbol transferred into an acoustic event. Kubisch's approach reinforces my attempt to make mediality itself the subject, not as an abstract concept, but as a sensually experienceable layer that structures our everyday life without normally being consciously perceived.

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3.4 Sound Transforming Spatial Perception – Max Neuhaus: Times Square

<https://www.max-neuhaus.info/>



Figure 5: Max Neuhaus, *Times Square* (1977), permanent sound installation, New York. Photo credit: Gwenn Thomas.

Max Neuhaus's *Times Square* is a permanent sound installation initiated in 1977 and considered a pioneering work of sound art. The work consists of an electronic sound generator installed in a steam exhaust shaft beneath a grating between Broadway and Seventh Avenue (45th–46th Street). The sound emanates 24 hours a day, without hidden signage or marking that would indicate the work as an art object. Neuhaus wanted the sound to be perceived simply as a "*plausible, unusual machine noise from underground*" and overlooked until serendipitously discovered by the viewer.

The sonic quality is described by Neuhaus himself as an "*echo of large bells*" and characterized differently by various observers: the Dia Art Foundation calls it a "*deep, slightly pulsating drone*," the Metropolitan Transportation Authority a "*rich harmonic sound texture*," the New York Times a "*deep, resonant and slightly undulating drone with a tone reminiscent of deep carillons or church bells*." What's interesting is that, although it is a single frequency pattern, the perceived quality of the sound changes relative to human

movement—pitch, timbre, and tone shift depending on the listener's position and body posture.

The longer history of the installation is turbulent: Neuhaus negotiated between 1973 and 1977 with the Metropolitan Transportation Authority and Con Edison about the installation, a lengthy dispute that was only successful after Neuhaus founded a nonprofit organization called *Hybrid Energies for Acoustic Resources* (HEAR). Power supply was continually problematic; subway system voltages were too high, Con Edison refused to connect to MTA property, so Neuhaus hired a private maintenance company to connect the work to a nearby streetlight. In 1992, the installation was deactivated due to lack of maintenance, but in 2002 it was revitalized by Christine Burgin, a New York gallerist, with support from the Dia Art Foundation.

The philosophical significance of *Times Square* lies in its ability to fundamentally transform spatial perception: the sound converts the public square from a visual to an acoustic event space, an inversion that makes the centrality of sound in urban life newly visible. Neuhaus was one of the first contemporary artists to use sound as a primary medium rather than as a secondary or supporting element. *Times Square* exists as a resistant acoustic presence in one of the loudest, most visually overloaded areas on earth. It challenges a form of attention that stands against noise pollution.

Max Neuhaus' *Times Square* is a key work for my practice because it shows how sound does not illustrate space but constitutes it. In *The Scream of Music*, the public space along the Danube is likewise reorganized through sound: not visual presence but acoustic reach defines the experiential space of the work. Neuhaus' deliberate renunciation of visibility and marking has sharpened my approach to understanding sound as the primary carrier of meaning that shifts perception subtly yet sustainably.

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3.5 City Soundscape – Cevdet Erek

<https://cevdeterek.com/>



Figure 6: Cevdet Erek, *Bergama Stereo* (2019–2020), multi-channel sound installation. Photo credit: Mathias Voelzke.

The Istanbul-born artist Cevdet Erek works at the intersection of sound, sculpture, and architecture, creating site-specific spatial installations that interrogate perception, time, and history. Trained as an architect, lecturer, musician, and sound engineer, Erek uses his multifaceted knowledge to design sonic environments that invite audiences to active participation and reflective engagement with sensory experiences.

A central work is *Bergama Stereo* (2019–2024), an architecture-sound installation that critically engages with cultural property, colonial origins, and reconstruction. In the late 19th century, the German Empire transported fragments of the Hellenistic Pergamon Altar from its original location in western present-day Turkey to Berlin. Erek's installation works with a 34-channel composition that acoustically activates the sculptural frieze of the original altar, '*bringing it to life.*' The sound composition combines elements of Berlin's contemporary techno scene with traditional dance rhythms of the *davul*, a characteristic bass drum from music of the Bergama region, the altar's place of origin. This hybridization is deliberate: it breaks with classicist notions of '*authentic*' or '*historical*' music and instead celebrates the diachronic, transcultural existence of sounding objects.

A second work, *Room of Rhythms* (2010–2012), was initially conceived for documenta 13 in Kassel and has developed into a series with further executions at MAXXI Rome, Sydney Biennale, and Istanbul Biennale. These works explore the rhythmic qualities of space itself, how bodily movement and acoustic structures are interlocked. With *ÇIN* (2017), Erek presented an architectural sound intervention in the Turkish Pavilion at the 57th Venice Biennale.



Figure 7: Cevdet Erek, *Far Left – Far Right* (2025–2026), installation view. Photo credit: Daniel Fischer.

Erek's artistic strategy uses seriality as a means to examine the subjectivity of lived experiences in different places, at different times, and in different cultural contexts. His works are not simply '*sound installations*' in the conventional sense, but rather: procedures for activating spaces, through which history, architecture, and corporeality are transformed into their acoustic dimensions. The decomposition of *Bergama Stereo* into various geographic fragments doubles the original colonial fragmentation of the Pergamon Altar, Erek thereby not only makes a historical injustice visible but also

develops 'alternative forms of exhibiting' that question the unified, central museum presentation.

Cevdet Ereğ's works are particularly important for my practice because they employ sound as a means for the historical and spatial re-activation of architecture. In *The Scream of Music*, an iconic image of cultural identity is likewise removed from its original context and transferred into a new spatial-acoustic constellation. Ereğ's handling of fragmentation, seriality, and translocation reflects my own approach of not confirming national symbols but rather re-questioning them through medial displacement and spatial distance.

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3.6 Communication in Public Space – Hörtner/Stocker: Winke Winke (1994)



Figure 8: Horst Hörtner & Gerfried Stocker, Winke Winke: A Message Transmission (1994), telematic installation.

Photo credit: Hörtner / Stocker.

Winke Winke: A Message Transmission (1994) is a communication project by Austrian artists and technologists Horst Hörtner and Gerfried Stocker that critically engages with technologies of message transmission, encoding, and the influence of technological media on the message itself. The project realizes these themes through a physical and telematic installation that makes the process of message transmission across multiple encoding levels visible (and experienceable).

The system functions according to the following principle: A publicly accessible computer terminal with keyboard and monitor was connected to a robot positioned on the summit of Patscherkofel mountain (2,246 m), approximately ten kilometers as the crow flies from the exhibition hall in Hall. Messages entered into the computer were

immediately translated by the robot into the signs of the international maritime flag alphabet. The robot '*played*' these flag signals visibly, with its movements recorded by a video camera. These recordings were fed into a second computer, which used digital image pattern recognition to recognize the flag characters again as letters on the screen and output them, in real time.

The artistic potency of the work lies in its embodiment of the media transmission process: the message passes through several encoding forms, from language to digital text (input), then to physical flag signals (intermedium), then back to digital video and image analysis (output). Each of these transformations harbors the potential for errors, delays, and shifts in meaning. Hörtnner and Stocker demonstrate that '*pure*' communication is impossible—media are not transparent channels but active transformers of the message.

The project was installed in a tension-filled geographical context: Patscherkofel houses a powerful transmitter of ORF (Austrian Broadcasting Corporation) and the Austrian Post, which serves large parts of Tyrol and coordinates program exchange with Italy. *Winke Winke* situates itself in the midst of an infrastructure of media transmission and information control. The project uses this public attention and its security imperatives to conduct a poetic, playful, and simultaneously critical engagement with transmission, encoding, and media control. In an era of internet and digital networks, *Winke Winke* invites reflection on the material, temporal, and technological conditions under which communication takes place.

Winke Winke is of central significance to my work as it reveals the impossibility of unmediated communication. The multi-stage translation process, from text to signal, from signal to image, from image back to text, structurally corresponds to the transformation process in *The Scream of Music*, in which image, sound, space, and technical systems interlock. The work by Hörtnner and Stocker reinforces my approach of understanding errors, delays, and shifts in meaning not as disturbances but as constitutive elements of medial communication.

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3.7 Art Intervention in Public Space – Christoph Schlingensief: Foreigners Out! (2000)

<https://www.schlingensief.com/>



Figure 9: Christoph Schlingensief, *Ausländer raus!* (2000), performance documentation. Photo credit: Paul Poet.

Bitte liebt Österreich – Foreigners Out! Schlingensief's Container (2000) is one of the most radical and controversial art projects in European contemporary art, working simultaneously with the instruments of performance art, reality TV, and political intervention. German artist and director Christoph Schlingensief executed this project during the 2000 Vienna Festival, at a time of intense Austrian confrontations with national identity, xenophobia, and asylum policy, following the formation of an ÖVP-FPÖ coalition government under Chancellor Wolfgang Schüssel and the rise of right-wing populist Jörg Haider.

The project worked with a critical imitation of the reality TV format *Big Brother*: A shipping container housing twelve actual asylum seekers was placed on Herbert-von-Karajan-Platz next to the State Opera. A large sign reading "*Ausländer raus!*" (Foreigners Out!), an FPÖ campaign slogan, was mounted on the container, along with the logo of *Kronen Zeitung*, Austria's most-read tabloid newspaper. The container's inhabitants were subjected to a double siege daily: during the day they were exhibited as attractions,

had to complete German lessons, dance in sexy wigs to oompah music, or were observed and 'fed' by visitors during 'peep-show' times like in a colonial human zoo.

The central perversion of the project was a voting mechanism: visitors could vote via internet or telephone for which two inhabitants were deemed 'least popular' and should therefor be 'deported' daily back to their countries of origin. The winner received 7,000 Austrian schillings and the 'option' of Austrian citizenship through marriage. In the mornings, speeches by FPÖ chairman Jörg Haider blared over loudspeakers while the container's inhabitants completed their lessons, an acoustic environment of racist propaganda.

Schlingensief documented public reactions: An elderly man, empowered by the electoral victory of right-wing populists, demanded not only "Foreigners Out!" but the public execution of asylum seekers with the words "Cut off their heads!" A man with Southern European appearance complained about "Turks and Yugos as the worst" and when asked "What is your name?" answered: "Turkowitsch"—a name with Turkish and Yugoslav ancestry. A white 'patron' lectured a Black asylum seeker about his 'privileges' in Austria and, when asked, could not name a single country on the African continent.

The intensity of reactions, threats with knives, acid, and arson attacks on the container, revealed the merciless reality of racism and nationalist violence. Schlingensief did not work with the illusion of an enlightened public needing a 'lesson,' but exposed the actual social and psychological mechanisms of exclusion as they operate in a society that elects and tolerates right-wing populism. The project was not only critique of reality TV or asylum policy. It was an archaeological excavation of the deep structures of nationalism, racism, and technologically mediated control.

The project's closure after six days demonstrated the boundary between critical art practice and physical security: violence became real, no longer at the level of votes or media reactions. Schlingensief later called this practice 'Cultural Terrorism' a deliberate, provocative strategy that does not lead to reconciliation or dialogue but to the visualization of truths that society prefers to repress.

Christoph Schlingensief's *Foreigners Out!* is a crucial reference point for my work because it exposes national identity as a performative, medially generated, and violent process. While *The Scream of Music* pursues a more subtle, acoustic strategy, both works share an interest in how public spaces become stages for political projections. Schlingensief's uncompromising exposure of social abysses has shaped my own position of not conceiving art as a conciliatory gesture, but as a means of making visible, or in my case: making audible, repressed realities.

References:

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- 2025, from <https://vinylwriters.com/the-greatest-performance-art-christoph-schlingensiefs-foreigners-out-2000/>
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4. Analysis of the artwork – The Scream of Music

The Scream of Music intervenes precisely at the intersection of the city. The LRAD, which is used in border control as an instrument of deterrence and 'area denial,' here functions as a medium of image transmission. Nevertheless, it marks, following Foucault and Vaughan-Williams, the transition of a technique that manages life and controls bodies. The installation uses a technology that in other contexts silences voices as a carrier of an artistic 'scream'. Bio-political border techniques and symbolic identity narratives overlap in the medium of sound.



Figure 10: *The Scream of Music* (2024), Flyer.
Photo credit: Eva Maria Dreisiebner.

4.1 Conceptual Analysis: Symbols, Borders, Media

The Scream of Music can be understood as an unstable monument. The widely known image from *The Sound of Music* functions as a symbol of Austrian identity. Its translation into yodeling, LRAD sound, air vibrations, data, and finally postcards expose, that meaning emerges in the movement between media. The work does not simply exhibit a message 'about Austria' but presents the conditions of its medial production.

The Scream of Music operates at the intersection of national symbolism, military border technology, and medial transformation. The work uses an iconic still image from the film *The Sound of Music* as its starting point. A cultural product that has become a globally circulating cipher for 'Austria' like few others. The mountain landscape, the family idyll, and the musical staging produce an image of nation that appears equally nostalgic, touristic, and depoliticized. The film image functions as a condensed symbol of national identity, not in the sense of a 'real' Austrian culture, but as a pop icon of an imagined Austria.

As Graml argues, "*Austrian tour organizers as well as tourism officials try to reimagine an 'authentic' Austrian national identity by casting the film as well as the tours as a second-order mechanical reproduction of a much more exciting Austrian national 'reality.' In other words, the copy creates the original*" (Graml, 2005, p. 192).

This reversal, the film image as producer of 'authentic' Austria, already demonstrates that national symbols have no essentialist foundation but are produced through medial repetitions and touristic practices.

Graml further emphasizes: "*The iterative manifestations of the Sound of Music narrative further illustrate how the connection between tourism and Austrian identity narratives has adapted to twenty-first century conditions*" (Graml, 2005, p. 244).

The Scream of Music takes up this iterative logic and shifts it into a critically experimental context.

In contrast stands the Long Range Acoustic Device (LRAD-300X-RE), a directional speaker technology originally developed for military communication and deployed at EU external borders to deter migrants. While *The Sound of Music* image serves an imagined, seemingly harmless conception of national identity, the LRAD points to those violent border practices through which exactly this political community is territorially secured. Between 'wholesome world' aesthetics and sonic weapon, a field of tension emerges in which questions of belonging, inclusion, and exclusion are negotiated.

The third central pole is yodeling as a historically and regionally anchored vocal practice. Yodeling stands for both, a vocal technique and a cultural signal. Characterized by abrupt shifts between chest and head voice, wordless syllables, and wide pitch intervals, yodeling historically functioned as a form of long-distance communication across alpine

landscapes. Its vocal structure is inherently spatial: it addresses distance, echo, and the physical propagation of sound rather than linguistic meaning. This makes yodeling particularly suited to processes of technical transmission and algorithmic analysis, as employed in *The Scream of Music*.

At the same time, yodeling is strongly charged as a symbol of Alpine and Austrian identity. Much like the imagery of *The Sound of Music*, it operates within a field of cultural clichés shaped by tourism, nostalgia, and popular media. (Plantenga, 2004) By isolating the vocal material from its familiar performative context and subjecting it to directional sound transmission via LRAD and machine-based pattern recognition, the work deliberately destabilizes this symbolic register.

The vocal samples used in the installation were provided by Maria Moling, a musician and vocalist whose artistic practice moves between traditional alpine vocal techniques, contemporary music, and experimental performance. Raised in South Tyrol and deeply connected to the Ladin musical heritage through her work with the band Ganes as well as her own projects, Moling's voice embodies a living relationship to yodeling. (Ganes, 2024) Her collaboration situates the work not as an abstract appropriation of a tradition, but as a dialogue with a contemporary artistic practice that actively negotiates between heritage, transformation, and authorship.

The Danube, which runs between the University of Art and Design Linz and the Ars Electronica Center, forms another historically charged border—between city districts, but also as part of the longer history of European border demarcations along rivers. The work stages an acoustic crossing here: A military border device is used to 'yodel' a nationally charged image across a river, translating it into sound and spatially projecting it.

Media play a double role in this arrangement: on one hand as technical transmission instances (loudspeakers, microphone, computer, AI models), on the other hand as symbolic filters that determine what circulates as an '*image of Austria*' and how it is read. *The Scream of Music* makes these processes visible by not only citing the image symbolism but breaking it apart and reassembling it in a sequence of media transformations. Image → Sound → Space → Algorithm → Image.

4.2 Medial Transformation: Image → Sound → Space → Algorithm → Image

At the center of the artistic and research question stands what happens to a symbol of national identity when it is sent through a chain of radical medial transformations. Instead of simply reproducing the image from *The Sound of Music*, *The Scream of Music* systematically disassembles it and transfers it into technical, acoustic, and performative practice.

Walter Benjamin writes: "*Even the most perfect reproduction of a work of art is lacking in one element: its presence in time and space, its unique existence at the place where it happens to be*"

(Benjamin, 1968, p. 220). *The Scream of Music* makes just this dimension of loss productive: The film image loses its 'aura,' but through this very process becomes an object of critical reflection on reproduction, mediality, and national symbolism.

The famous image from *The Sound of Music* is not used as a nostalgic citation but as an exemplary identity symbol that is opened to its presuppositions through medial transformation and spatial displacement. The image information is translated into a yodeling sequence, sent across a historically and politically charged border, the Danube, via LRAD, and reconstructed on the other side through algorithmic pattern recognition. The entire process shifts the symbol from its touristically and cinematically familiar environment into a context in which questions of bio-politics and border technology resonate.

4.2.1 Image → Code

The starting point is a single still image from the film, divided into a grid of $21 \times 12 = 252$ image segments. Each segment receives a hexadecimal number as a unique code, ranging from 00 to FC. At this level, the image is transformed from an iconic, semantically loaded symbol into an abstract, numerical structure. The touristic myth of Austria transforms into a set of data points that possess no visual charm but dissolve into a technical vocabulary of addressing and indexing. The image is present only through its position in code space; national symbolism is deconstructed at the level of protocol.

The hex encoding of the *Sound of Music* image is a metamorphosis: a transformation that makes the image oscillate between different levels of meaning, and analog and digital realms, like Liska and Weibel mentioned, described in chapter 2.3.

4.2.2 Code → Sound

The numerical codes of the image parts are then assigned to 16 yodel samples recorded by Maria Moling. These values do not function as descriptive metadata but as purely operational addresses. The translation from image to sound therefor follows a strict protocol: the sequence always begins with the hexadecimal value 00, followed by the successive codes of the image segments (01, 02, 03 ... FC).

The value 00 functions as a structural marker rather than a representational element. After the completion of each horizontal image line, the code 00 is transmitted again, re-establishing synchronization before the next line begins. In this way, the two-dimensional structure of the image is preserved within a one-dimensional temporal sound sequence. Spatial order is not represented visually but enforced through repetition, reset, and timing.

This encoding strategy emphasizes that meaning does not reside in the individual yodel samples themselves, but in their ordered succession. Yodeling here operates as a carrier

signal: its cultural associations remain audible, yet its primary function within the system is organizational. The vocal material becomes a protocol that translates spatial segmentation into temporal rhythm, making the image readable only through adherence to the underlying code.

Littlejohn and Foss emphasize that *"A symbol or set of symbols works by communicating a concept, a general idea, pattern, or form. [...] A symbol is 'an instrument of thought'"* (Littlejohn & Foss, 2008, p. 106). In *The Scream of Music*, yodeling becomes such an *"instrument of thought"*—it does not simply represent alpine tradition but functions as a symbolic system that translates image units into acoustic events.

4.2.3 Sound → Space

The yodel samples are projected via LRAD across the Danube, a distance of about 350 meters from the roof of the University of Art and Design Linz (approximately 25 m above street level) to the main deck of the Ars Electronica Center. The data becomes sound and the sound becomes directed sonic beam in a specific urban space. The transmission is not abstract but situated in meteorological, acoustic, and urban conditions: wind, reflections on building facades, the water surface of the Danube, and an existing ambient sound level of approximately 50 dB from traffic significantly determine the transmission.

Biserna argues: *"The decision to record (at) the border is neither transparent nor neutral. On the contrary, this choice makes clear the artist's involvement in a spatiotemporal apparatus that is saturated with cultural, social, economic and political issues."* (Biserna, 2017) This observation translates directly to *The Scream of Music*: The decision to stage the Danube as an acoustic border is not a neutral gesture but a political positioning that marks the space itself as culturally and historically charged.

Moulon describes such urban interventions as experimental fields *"at the scale of our interfaced and connected cities, where the act of shaping the urban landscape is sometimes political"* (Moulon, 2018, p. 333). *The Scream of Music* consciously uses this political dimension: sound shapes urban space and thereby unveil which infrastructures, norms, and power structures regulate public space.

4.2.4 Space → Algorithm

On the opposite side, the arriving yodel is captured via microphone and analyzed by an AI system based on BirdNET. The algorithm recognizes which sample was sent and translates it back into numerical codes. The spatially deformed sound, interspersed with noise, reflections, and temporal delays (approximately 1 second sound propagation time), is algorithmically interpreted.

Wrightson describes how under certain conditions, sounds become "*anti-information: 'noise'*" (Wrightson, 2000, p. 2). In *The Scream of Music*, this boundary between information and noise is constantly negotiated: The algorithm must decide what is recognized as '*yodel-sound*' and what should be treated as disturbance. This distinction is not objective but is established through training, thresholds, and statistical models and this is structured by technical and epistemic presuppositions.

4.2.5 Algorithm → Image

The recognized codes control the arrangement of 252 printed postcards in transparent pockets on a 3 m × 2.5 m tarp. From the classified sound events, an image gradually emerges. The original *Sound of Music* motif, but filtered through space, technology, disturbances, and algorithmic decisions. The manual placement of the postcards makes the artist himself part of the algorithmic chain; the visual reconstruction becomes performative.

Peter Bürger describes the avant-garde strategy of montage: "*The avant-gardiste, on the other hand, joins fragments with the intent of positing meaning [...]. The work is no longer created as an organic whole but put together from fragments*" (Bürger, 2016, p. 70). The postcard wall in *The Scream of Music* is such a montage: a fragmented image that reveals its own construction and thereby breaks through the illusion of organic wholeness.

This chain of transformations is not only a technical workflow but an aesthetic argument: It shows that symbols of national identity are not stable but are shaped by media, infrastructures, and material conditions. Each stage, from hex code via yodel sound, sonic beam, AI embeddings to postcard, adds its own '*layer*' of meaning, error-proneness, and interpretive scope. Exactly where the system does not function perfectly, when samples are not recognized, when pockets remain empty, when image parts are missing, it becomes visible how fragile and constructed both technical and national '*totalities*' are.

Kathleen Forde argues: "*The strategies for electronic audio-visual manipulation, despite their short history, have evolved at a correspondingly explosive rate. It follows then that it is not the technological bells and whistles but the aesthetic and philosophic concerns implicit in the application of recent technology that delineate some of the most profound work of our time*" (Forde, 2005, p. 13). *The Scream of Music* confirms this thesis: Technical complexity is not an end in itself but serves the aesthetic and philosophical engagement with identity, mediality, and power.

4.3 Technical Implementation

The technical implementation of *The Scream of Music* follows the described transformation logic and makes it operative: An image is translated into a sequence of sound events, sent through an urban space, analyzed by machine, and reconstructed as a physical image object.

4.3.1 Image Processing and Encoding

For the source image from *The Sound of Music*, a regular grid with 21 columns and 12 rows was defined. Each of the 252 fields corresponds to an image segment with a specific position in the overall motif and was addressed with hexadecimal values (e.g. 0x00 to 0xFC, with corresponding mapping for 252 values). The choice of a hex system refers on one hand to proximity to computer logic (address spaces, memory, color values), on the other hand to the historical practice of encoding and encryption.

4.3.2 Audio Sample Production

The yodel samples were developed in close collaboration with Maria Moling. She provided 16 different yodel phrases, each possessing an independent melodic and sonic character. To increase the robustness of the later recognition system, each of these 16 phrases was played and re-recorded ten times, specifically:

- at different locations (interior spaces, exterior spaces)
- with different playback and recording situations
- partly directly on the main deck of the Ars Electronica Center, to match the later performance environment

In addition, numerous ambient and noise recordings were produced in the city and on site to capture typical interference spectra (traffic, voices, wind, river noise). This variety of recordings fulfills a dual function: technically it serves as data augmentation for training a robust classifier; artistically it anchors the abstract *The Sound of Music* image symbolism in concrete urban spaces and situations.

4.3.3 Machine Learning with BirdNET and Historical Context of Audio Pattern Recognition

Audio pattern recognition refers in the broadest sense to methods by which computers recognize recurring patterns in audio signals, from speech and music recognition to environmental and animal sounds. Historically, this ranges from analog filters and spectrogram analyses via classical digital methods with MFCCs (Mel-Frequency Cepstral Coefficients), Hidden Markov Models, and Gaussian Mixture Models to today's deep learning approaches with Convolutional Neural Networks and Transformer architectures. *The Scream of Music* connects to this development but shifts it into an artistic context: Not speech commands or bird species are recognized, but yodel patterns that stand for image segments.

BirdNET as Infrastructure

Technically, the project is based on the BirdNET framework and the associated BirdNET-Analyzer. BirdNET was developed at the Cornell Lab of Ornithology and TU Chemnitz to automatically recognize bird species from audio recordings. The underlying neural network works with spectrograms and calculates so-called embeddings for approximately three-second audio windows and high-dimensional feature vectors (1024-dimensional) that condense the sonic characteristics (Kahl et al., 2021).

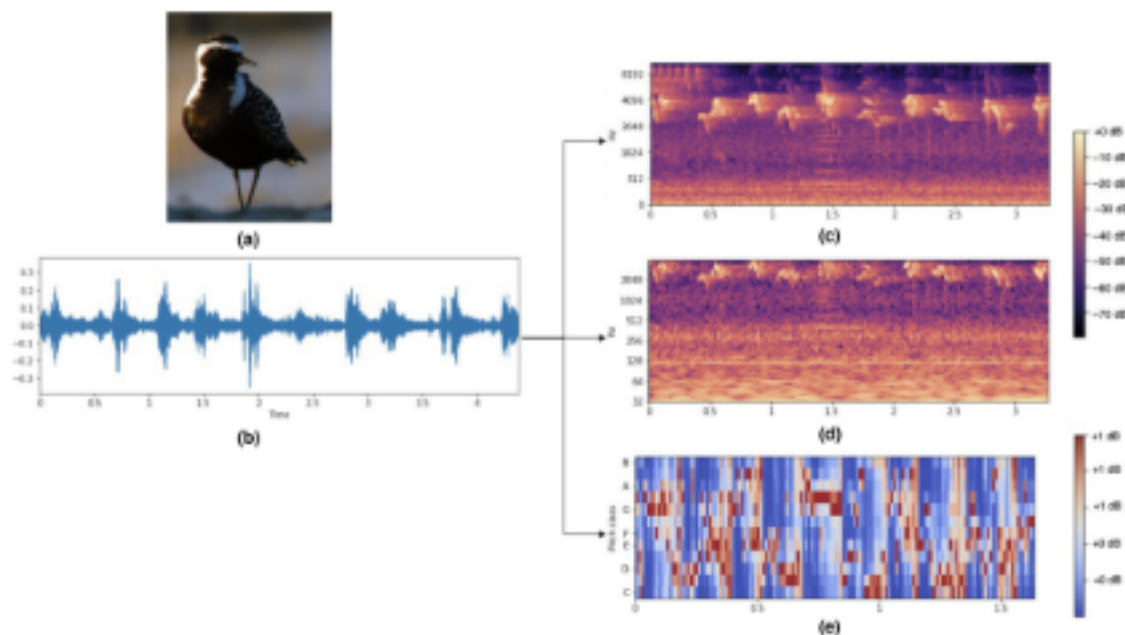


Figure 11: Audio pattern recognition diagram.

Source: Guei et al. (2024).

Different audio signal representations of an American golden plover (Pluvialis dominica) song recordings. (a) Picture of an American golden plover (NL). (b–e) represents the audio waveform, mel spectrogram, CQT Frequency and Chroma Shift's representation of the plover's song, respectively. (Guei et al., 2024)

These embeddings are normally used to classify bird species. For *The Scream of Music*, BirdNET was repurposed: The sonic representation serves here not for biological species determination but for recognizing 16 specific yodel phrases, which in turn encode image segments. An AI system originally developed for ecological biodiversity monitoring is infiltrated into an artistic process.

Grau and Veigl designate code as a medium *"that channels the spirit we imagine in the machine" and as a fetish endowed with magical powers* (Grau & Veigl, 2011, p. 184). In *The Scream of Music*, this fetishization becomes concrete: The algorithm that translates an image into sound and later recognizes the signal again remains invisible but structures the entire process. The *'magic'* of machine recognition becomes an integral part of the artistic statement.

Training a Custom Classifier

BirdNET-Analyzer allows training one's own lean classification head based on the pretrained embeddings. The training pipeline consisted of:

1. Segmentation of audio files into 3-second windows
2. Resampling to 48 kHz (expected by BirdNET)
3. Sorting into class-ordered subfolders (one folder per yodel phrase)
4. Calculation of BirdNET embeddings for each recording
5. Training of a multi-layer classifier (Dense Layers) that assigns each embedding to one of 16 classes
6. Validation with real test recordings

Hyperparameters such as number of epochs, batch size, and learning rate were determined empirically; the goal was not maximum scientific model optimization but practical robustness under real performance conditions. The model was optimized to classify reliably even with background noise, wind sounds, reflections, and level fluctuations.

4.3.4 Transmission Technology: LRAD and Directional Sound

For transmitting the yodel samples across the Danube, an LRAD-300X-RE was deployed, rented from a specialized provider (loracs.de). The device is a professional directional speaker system that focuses very high sound pressure levels onto a narrow radiation angle. Originally, this technology was developed for military communication, crowd control, and as a *'sonic weapon'* at borders.

Essential technical characteristics:

- Strong directivity with a radiation angle of approximately $\pm 15^\circ$
- High speech intelligibility at distances of several hundred meters
- Maximum sound pressure level: up to 143 dB @ 1 m
- Possibility to precisely limit volume
- Playback: MP3 file via the control unit



Figure 12: LRAD device, detail view.

Photo credit: Eva Maria Dreisiebner.

The LRAD was installed on a stable tripod on the roof of the University of Art and Design Linz (approximately 25 m above street level), with a target distance of 350m to the receiver.



Figure 13: LRAD device, rear view.

Photo credit: Daniel Fischer.

Volume Management and Legal Framework

The work uses the LRAD in a significantly volume-reduced mode. The officially approved target volume was 60 dB. Due to external conditions (wind, temperature gradients, reflections on building facades), however, brief peaks of up to 68 dB occurred.

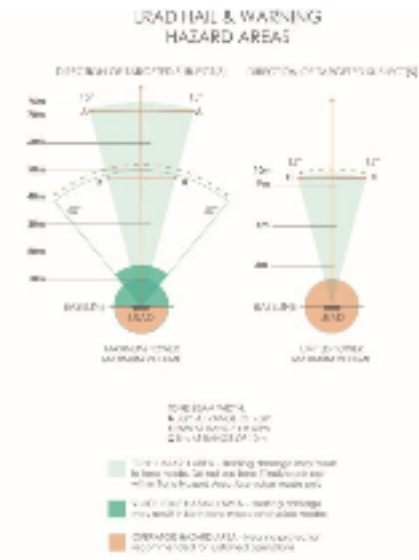


Figure 15: LRAD technical overview (FAQ).

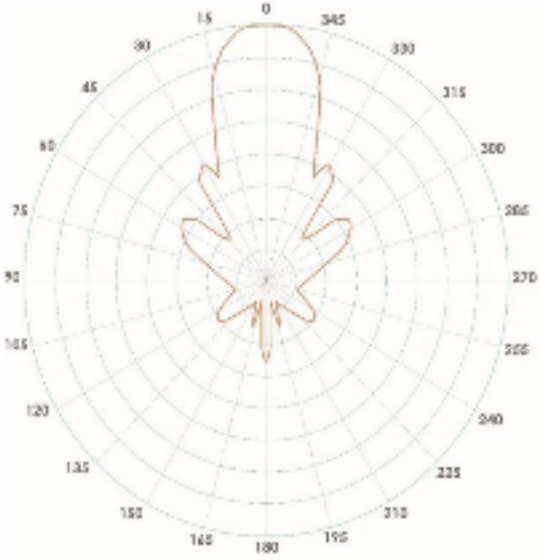


Figure 14: Acoustic Deterrent Systems, directional sound illustration (FAQ).



Figure 16: Acoustic Deterrent Systems, sound pressure level diagram (FAQ).

An unplanned factor was the local ambient sound level of approximately 55 dB from street traffic. To lift the yodel samples above this noise level at all and transmit them reliably, the LRAD had to operate louder than originally intended. The lack of advance sound measurement led to a real-world acoustic discrepancy between planning and performance.

According to the noise protection guidelines for events (Umweltbundesamt, 2011), for rare events (max. 10 days/year) during daytime (6–22 hours), levels of up to 70 dB are permissible, with peak levels up to 90 dB.

Bewertung seltener Veranstaltungen, deren wesentliche Schallquellen elektroakustische Anlagen sind Bei seltenen Veranstaltungen ist in der Entscheidungsfindung im Einzelfall abzu wägen, ob den betroffenen Nachbarinnen und Nachbarn eine über das reguläre Maß (z. B. die Planungsrichtwerte für Immissionen gemäß ÖNORM S 5021 wie im Kapitel 2.2 beschrieben) hinausgehende Belastung zugemutet werden kann. maximal zulässiger Dauerschallpegel. In diesem Fall werden für höchstens 10 Veranstaltungstage folgende Beurteilungspegel vor den Fenstern (im Freien ohne Berücksichtigung der Reflexion an der betroffenen Fassade) als maximal zulässig angesehen: In diesem Fall werden für höchstens 10 Veranstaltungstage folgende energie äquivalenten Dauerschallpegel vor den Fenstern (im Freien ohne Berücksichtigung der Reflexion an der betroffenen Fassade) als maximal zulässig angesehen:

tags (6:00 bis 22:00 Uhr) 70 dB

nachts (22:00 bis 6:00 Uhr) 50 dB

Bei der Ermittlung der höchstzulässigen Anzahl von Veranstaltungstagen pro Kalenderjahr ist auch darauf Bedacht zu nehmen, ob mehrere Veranstaltungstage unmittelbar aufeinander folgen.

(Umweltbundesamt, 2011)

In conclusion, it can be said that the sound levels were higher than planned, but still within the limits of what is officially permitted for events in public spaces during the day. In addition, sound measurements, and especially in this case with directional sound, are very difficult to assess due to the logarithmic quality of sound and the countless factors that can influence directional sound.

This recoding is central: A border and control instrument is transformed into an artistic communication medium, a medium that is itself politically readable because it raises the question of who is allowed to be loud in public space and under what conditions.

4.3.5 Receiving Station & Live Decoding

The receiver side was set up on the main deck of the Ars Electronica Center, approximately 350 meters in distance from the LRAD. The technical chain consisted of:

- Microphone: Rode VideoMic Rycote as directional microphone for capturing the arriving yodel sound
- Laptop: Python script for real-time segmentation and processing
- Classification: BirdNET-based model outputs the most likely class per segment
- OSC interface: Open Sound Control for forwarding classification events
- Visualization: Processing program with graphical user interface for visualizing recognized samples
- Materialization: Manual placement of 252 postcards in transparent pockets on the tarp

In the live situation, a feedback loop emerged: yodel on one side of the Danube, algorithmic recognition and image construction on the other. The audience could not only hear the processing but follow via the GUI and the physical wall structure how sound becomes image again.



Figure 17: Processing user interface, live decoding view.

Photo credit: Daniel Fischer.

4.3.6 Materialization of the Transmission: Postcard Wall

The reconstructed image was not displayed as a projection or screen visualization but as a material object: 252 printed postcards, each assigned to an image segment and this to associated to a yodel sample.



Figure 18: Postcard wall installation during live performance. Photo credit: Eva Maria Dreisiebner.

On a 3 m × 2.5 m tarp with transparent pockets, the postcards were placed in real time during the performance. The order of insertion was determined by the actual recognition of samples by the AI system. If a sample was not recognized or misclassified, the corresponding pocket remained empty or received a 'wrong' card.

Bürger describes how "The insertion of reality fragments into the work of art fundamentally transforms that work. [...] since parts of it no longer have the relationship to reality characteristic of the organic work of art. They are no longer signs pointing to reality, they are reality." (Bürger, 2016, p. 78)

The postcards in *The Scream of Music* are such reality fragments: They are not representations of the image but material traces of the transmission process itself.

Effects of this materialization:

- The image emerged in stages, synchronized with the yodel performance
- The error became visible: omissions and shifts marked disturbances in the transmission process
- The audience could see the materiality of the code, the abstract hex assignments became physical objects with tactility, weight, and position
- The blurriness of the image shows the limits of communication across distance, media, and political border regimes



Figure 19: Presentation on the Ars Electronica Center (AEC) Main Deck. Photo credit: Eva Maria Dreisiebner.



Figure 20: View from the Danube towards the AEC Main Deck. Photo credit: Eva Maria Dreisiebner.

The act of placing the postcards was deliberately performed by myself as the artist. This decision emphasizes that the reconstruction of the image was not an automated visualization but a situated, embodied action. The artist's body became part of the transmission chain, positioned between algorithmic recognition and material outcome. Each card was inserted manually, in real time, following the signals produced by the system. In this sense, the work resists a seamless automation of representation and instead foregrounds the labor, attention, and potential for error inherent in mediation.

The choice of postcards rather than a projected or screen-based visualization was equally intentional. Throughout my previous artistic works, I have consistently sought to materialize information physically rather than represent it through purely digital displays. In *The Scream of Music*, the postcard functions as a culturally loaded object associated with tourism, circulation, and the condensation of place into an image that can be carried, sent, and owned. This choice reinforces the work's engagement with national imagery and its modes of distribution.



Figure 21: Artist at work during the performance.

Photo credit: Eva Maria Dreisiebner.

This material approach continues a line of artistic inquiry already present in earlier works. In my bachelor project *watermap* (2021), for example, meteorological data was visualized through physical water droplets falling onto a sand-based map, allowing abstract information to inscribe itself directly into matter. Similarly, the postcard wall in *The Scream of Music* translates digital codes and algorithmic decisions into physical traces. Information becomes visible not as a clean output, but as a process marked by delay, misalignment, and accumulation.

By insisting on physical materialization, the installation shifts attention away from the image as an end product and toward the conditions of its emergence. The postcard wall does not merely show the result of transmission; it records the temporal, technical, and performative effort required to make the image appear.

After approximately 1 ¼ hours of performance, the overall image was recognizable as the *The Sound of Music* motif, despite individual gaps. The installation thus oscillated between technical precision and deliberate imperfection.

4.3.7 Technical Challenges and Error Behavior

The live situation brought a series of technical challenges that simultaneously became conceptually productive:

- Background noise from traffic, passersby and festival activity
- Wind and weather, which influenced both the propagation of sound and microphone pickup
- Reflections on building facades and the water surface, leading to interference
- Temporal delay through sound propagation time (approximately 1 second over 350 meters) and latency of the processing system



Figure 22: Distance between Kunstuniversität Linz and Ars Electronica Center.

The model was trained for robust recognition; nevertheless, non-recognitions or misclassifications occurred. These were not treated as disturbances in the sense of errors

to be suppressed but as part of the meaning. Technical implementation and concept converge here: The conditions of space, physical, social, political, inscribe themselves into the image that ultimately becomes visible.

Eco describes modern art forms as works that create a '*field of events*', an '*ambiguity*' of the situation, that triggers different operative or interpretive decisions each time. (Eco, 1990, p.46)¹¹ *The Scream of Music* is such a field of events: Each performance produces a different image, depending on wind, noise, algorithmic fluctuations, and performative decisions.

4.4 Exhibition Context & Reception (Ars Electronica Festival 2024)



Figure 23: *The Scream of Music* signage.

Photo credit: Eva Maria Dreisiebner.

The Scream of Music was realized as part of the Ars Electronica Festival 2024 in Linz. The work was designed as a recurring performance over several days: each day, the yodel transmission was to take place for approximately one hour, with a transmission platform on the roof of the University of Art and Design Linz (Hauptplatz 6) and a receiving station on the main deck of the Ars Electronica Center.

In advance, there was approval from the magistrate Linz for an audio performance in public space, with a permissible sound pressure level of 60 dB. The performances on the first day took place as planned. In the course of events, however, several noise

complaints from local residents occurred, who perceived the installation as a disturbance of the peace. On the second day, an official volume measurement was conducted, which showed no exceedance of limit values, but louder sound than planned. Nevertheless, the magistrate decided to prohibit the following planned performances.



Figure 24: The Scream of Music canceled poster.

Photo credit: Eva Maria Dreisiebner.

4.4.1 Political and Social Context

The decision fell into an already politically charged situation: Before the festival, there had been a culture appointment scandal in Linz, following which the mayor resigned. At the same time, the national election campaign was imminent. The project, which thematizes military sonic technology and refers to border practices took place in a context of heightened political sensitivity.

4.4.2 Audience and Differences in Perception

Audience reactions were strongly influenced by the visible process of materialization. Rather than encountering a finished image, visitors witnessed its gradual emergence through the repeated act of placing postcards. This performative gesture made the

underlying protocol legible and foregrounded moments of interruption, misrecognition, and absence.

Several viewers initially assumed that the postcard wall functioned as a decorative or archival display. Only through prolonged observation did it become clear that the image was being actively constructed in real time and that empty or incorrectly filled pockets were not errors of installation but direct consequences of the transmission process. The artist's physical presence, continuously responding to algorithmic output, reinforced the perception of the work as a live system rather than a static representation.



Figure 25: Exhibition view: *The Scream of Music*.

Photo credit: Eva Maria Dreisiebner.

This temporal exposure shifted the audience's focus from the recognizability of *The Sound of Music* motif to the conditions under which recognition becomes possible at all. Attention moved from what was shown to how it was produced, revealing the fragility of communication across technical, spatial, and political thresholds.

The feedback also showed a differentiated picture of reception:

International festival visitors reacted consistently enthusiastically. Many described the work as powerful, poetic, surprising, and technologically innovative. They understood the technical and symbolic complexity of the work.

Art-affine persons with rural backgrounds reacted partly ambivalently. *The Sound of Music* motif is strongly linked for many with conservative or clichéd representations of Austria. The work touched a kind of cultural ambivalence that was not primarily

technically or aesthetically motivated but identity-politically. Some were unsettled by the handling of a motif they have internalized as conservative or kitschy.

Claude M. Steele describes this mechanism: *"We think of ourselves as autonomous individuals. After all, we make choices. But we often forget that we make choices within contexts, always. And pressure tied to our social identities is a component of these contexts. This is difficult to appreciate by reflecting on our experience. And yet, as I've urged throughout this book, it is precisely these pressures that make a social identity real for us. Stereotype threat is a broad fact of life"* (Steele, 2011, p.210).

The ambivalent reaction to *The Sound of Music* motif shows these identity-bound pressure relationships: The symbol is not neutral but activates social and cultural positionings.

Residents of the city of Linz perceived the work largely functionally: interesting or disturbing. For many, the content of the artwork receded behind the acoustic experience, volume became the central feature. Many did not see the work but primarily heard a 'loud noise.'

4.4.3 Media Coverage

Media reports frequently focused on the use of the LRAD and the disruptive character of the sound intervention. Less attention was paid to the material reconstruction of the image, despite its central role in making the transmission process visible. Where mentioned, the postcard wall was often described as an '*image*' or '*visualization*,' obscuring the fact that it functioned as a temporal record of algorithmic decisions rather than a representational display.

Medially, the work was negotiated under headlines like "*Yodel Performance with Sonic Weapon Stopped*." In press reports, it was emphasized that although no limit violation was found, the event was nevertheless terminated after complaints. In many articles the use of similar devices at EU external borders was pointed out.

Three discursive lines were recognizable in the coverage:

1. **Technologization of the debate:** The term '*sonic weapon*' dominated, although volumes were in the range of normal urban events
2. **Political context:** Recent political tension in Linz led to heightened sensitivity
3. **Shift from content to noise:** Many reports reduced the work to its acoustic conflict potential and obscured the substantive engagement with identity and borders

4.4.4 Reflection: Art, Volume, and Public Space

The central question became unmistakable through reception: How much acoustic imposition may art produce in public space?

Miwon Kwon writes: *"As many have said before, the public sphere is always necessarily an ideal, an idealized construction (fantasy), insofar as it imagines a possibility and potential of overcoming social differences to debate issues of common concern."* (Kwon, 2002) The reactions to *The Scream of Music* show how fragile this idealized public is: Different social groups had completely different expectations of urban space and the role of art within it.

Jürgen Habermas argues critically: *"The world fashioned by the mass media is a public sphere in appearance only. By the same token the integrity of the private sphere which they promise to their consumers is also an illusion"* (Habermas, 1989, p.171). In *The Scream of Music*, this tension between public and private sphere becomes concrete: The performance took place in public space but penetrated into private living spaces and thus raised the question of whose claim to space has priority.

Brandon LaBelle extends this perspective: *"Engaging questions of emancipatory practices, I further consider how we understand the public sphere, and how being public is seen to carry the weight and meaningfulness of political engagement. It is precisely such emphasis and equivalence – of publicness and political action – that I'm concerned to question, so as to extend the construct of what Hannah Arendt terms 'the space of appearance' as being central to political reality and its expressions"* (LaBelle, 2018, pp. 4-5).

The Scream of Music operates in this *"space of appearance"*: The work not only makes sound public but demonstrate through sound the political structures of public space.

In my own statement, I made this tension explicit: While football celebrations and concerts at the same location can produce significantly higher volumes, critically reflexive art that thematizes border technology seems to encounter a different form of attention. That the performance was stopped despite permission, registration, city funding, and compliance with limit values indicates a boundary not only of noise but of tolerance toward critical forms of artistic engagement.

From a sober perspective, the magistrate's decision was understandable since complaints were received. From an artistic perspective, it was nevertheless disappointing. After months of technical preparation, with official permission and within legally permissible frameworks.

Salomé Voegelin writes: *"Listening actualizes the work as world. To hear the work is to enter it as world produced from the actuality of its ideas extending into the possibilities of its materialities. between the work and the listener the world of the work expands and pluralizes"* (Voegelin, 2014, p.53). In *The Scream of Music*, this pluralization becomes concrete: Each listener constructs a different 'world' of the work, some hear a poetic experiment, others a noise disturbance, still others a political statement. This diversity is not deficiency but constitutive feature of the work.

Moulon (2018) describes urban sound interventions as sites where "*unstable monuments capable of accounting for the relativity of human relations in public life*" emerge (Moulon, 2018, p.333). *The Scream of Music* is such an "*unstable monument*": It does not mark a stable site of national identity but a temporary, conflict-laden field in which different conceptions of publicness, identity, and belonging collide.

This corresponds to what Eco demands a '*guerilla tactic*' that is not won at the starting point of communication, but at its destination, by discussing the message at the moment of its arrival and controlling the multiple interpretation possibilities. (Eco, 1985, pp. 154–155)¹²

The Scream of Music practices such a guerilla tactic: The work relinquishes control over its meaning to the receiving site: To wind, traffic, algorithm, and audience.

The termination of the event itself became part of the work: The reaction of authorities and the public is not only an external '*problem*' but a kind of social metric that shows how contested acoustic space is, particularly when military technologies, national symbols, and migration experiences are linked together. The unexpected interplay of actual noise, subjective perception, and political mood became a performative element of the installation.

The work does not represent a homogeneous identity but a conflictual space in which different experiential backgrounds and cultural readings collide.

Kwon writes: "*The fantasy of a public sphere, where one might bracket, temporarily, one's private, personal interests to imagine a collective identification, a different sort of intimacy – not for affirmation, consensus, or unification (not a self-same identification) – seems more important than ever. Such an effort to imagine a democratic public sphere anew is necessarily an exercise in abstraction, and the (art) work to be done seems to be located in the space of coming together of this different sort of intimacy and publicity.*" (Kwon, 2002)

The Scream of Music operates in this field of tension: between private discomfort and public claim, between individual perception and collective meaning.

Bürger argues that the historical avant-garde movements destroyed "*the possibility of positing aesthetic norms as valid ones.*" therefore "*the normative examination is replaced by a functional analysis, the object of whose investigation would be the social effect (function) of a work, which is the result of the coming together of stimuli inside the work and a sociologically definable public within an already existing institutional frame.*" (Bürger, 2016, p.87)

The Scream of Music confirms this functional analysis: The work receives its meaning not from abstract aesthetic norms but from the concrete social reaction of different publics.

4.5 Returning to the Research Question: How Do Symbols of National Identity Change Through Medial Transformation?

The central research question of this thesis is: How do symbols of national identity change through their medial transformation and performative re-staging in a historically charged space? Using the example of *The Scream of Music*, several answers can be formulated that operate on different levels.

First, it becomes apparent that a symbol like *The Sound of Music* image loses its apparent stability as soon as it is sent through a technical transformation chain. At the moment when the image is translated into hex codes, yodel samples, sonic beams, AI embeddings, and finally postcards, it becomes visible that it never simply represented 'nature' or 'tradition' but was always already a product of media, infrastructures, and practices. The work makes this mediality radically visible.

Appiah formulates this thought concisely: *"People have supposed that an identity that survives through time and across space must be underwritten by some larger, shared commonality; an essence that all the instances share. But this is simply a mistake. [...] Identities can be held together by narratives, in short, without essences: you don't get to be called 'English' because there's an essence this label follows; you're English because our rules determine that you are entitled to the label – that you are connected in the right way with a place called England"* (Appiah, 2019, p.199).

The Sound of Music image functions according to the same logic: It does not represent an essentialist Austria but a narrative construction stabilized through repeated medial circulation.

Second, the meanings of the symbol shift through the choice of media: A touristic-romantic film image is coupled with a military sonic technology deployed at EU external borders for deterrence. The 'innocent' yodel sound, often marketed as a folkloric gesture, becomes the carrier of an encrypted image projected across a river that itself has long functioned as a border. National identity appears here no longer as a warm homeland image but as contested terrain of infrastructure, control, inclusion, and exclusion.

Bénédictte Miyamoto describes this contradiction: *"The nation-state ideal that emerged in the Modern era has entrenched politically constructed borders by defining national identities as key and uniform, thus excluding undesirable non-nationals as threats to national homogeneity. Yet, art has constantly used non-national models as sources of inspiration and fascination, choosing its models and visual references from cultures beyond its perimeters, and contradicting the nation-state ideal of racial and cultural homogeneity."* (Miyamoto, 2021, p.11)

The Scream of Music makes this contradiction productive: The work uses a symbol of national homogeneity while simultaneously showing the violent border technologies that territorially secure this homogeneity.

Third, the work makes clear that errors, disturbances, and blurriness are not merely technical problems but have epistemic and political significance. Empty pockets in the postcard wall, misrecognized samples, distortions through wind or reflections stand for those aspects of identity and belonging that are not '*co-transmitted*' in official narratives. They stand for what is lost when complex experiences are filtered through media, borders, and institutions.

Fourth, the discussion of identity shifts into a public, conflictual space: The performance does not take place in the protected white cube but in the acoustic fabric of a city where local residents, authorities, festival audiences, and media encounter each other. The fact that the project was stopped despite compliance with limit values is a performative answer to the question of how much '*critical art*' an urban space permits when it touches technologies and discourses actually involved in borders and control.

Graml writes: "*Instead of viewing tourist performances as happening in a certain place, novel conceptualizations of places focus on the performative engagement of a self with his or her environment*" (Graml, 2005, p.194). *The Scream of Music* shifts this performative logic from the touristic to the critically artistic space: The work engages with the urban environment not as a neutral stage but as politically charged, regulated, and contested terrain.

Habermas describes the fragmentation of the public sphere: "*The sounding board of an educated stratum tutored in the public use of reason has been shattered; the public is split apart into minorities of specialists who put their reason to use nonpublicly and the great mass of consumers whose receptiveness is public but uncritical. Consequently, it completely lacks the form of communication specific to a public*" (Habermas, 1989, p. 175).

The Scream of Music makes this fragmentation productive: In this work there is not a homogeneous public addressed, but multiple, partly contradictory publics. This precisely shows how identity and publicness function today.

Finally, *The Scream of Music* shows that symbols of national identity do not simply disappear when transformed but return differently: *The Sound of Music* image reappears at the end of the performance as a blurred, fragmented, but still recognizable touristic icon. However, charged with the traces of its journey through code, voice, technology, space, algorithm, and conflict. Medial transformation changes the symbol not only formally but exposes its conditions: Who speaks? Who hears? Who controls the volume? Who is allowed to be loud in urban space and who is not?

In this sense, *The Scream of Music* is less an illustration of a theory than an experimental arrangement in which medial, political, and aesthetic dimensions of identity practically intersect. The work does not answer the research question with a stable formula but with a polyphonic, partly contradictory finding: Symbols of national identity change through medial transformation by making their own presuppositions, exclusions, and boundaries audible and visible and thereby become political, where they previously circulated as seemingly harmless images.

5. Conclusion: Art as critical practice

The Scream of Music investigated how symbols of national identity change when they are passed through different technical, medial, and spatial systems. The installation shows that identity is less a stable cultural core than a product of translations, infrastructures, and power relations. The technical precision of the work: encoding, yodel samples, LRAD transmission, machine learning, visual reconstruction, is therefore not merely means to an end but a methodical form of knowledge. The work poses the research question not only abstractly but produces an answer through its own functioning (and non-functioning).

5.1 Mediality as a Condition of Identity

The installation shows that identity, whether national, cultural, or collective, is mediated through media: images, films, voices, technical systems, algorithmic classifications. *The Sound of Music* motif, often perceived as a 'natural' symbol of Austrian culture, loses its stability in the process of segmentation, encoding, acoustic transmission, and algorithmic reconstruction and reveals its own mediality.

In this respect, the work confirms theoretical approaches that understand identity as narrative (Hall), imagined community (Anderson), or communicative construct (Hecht). However, the installation does not merely cite these theories but demonstrates them performatively: Identity is the result of a process. A technical, social, spatial, interpretive process and never simply a given essence.

Littlejohn and Foss emphasize: "*communication is the means by which identity is established and the mechanism by which it changes as well*" (Littlejohn & Foss, 2008, p.89). *The Scream of Music* materializes this thesis: The work is itself is a communication process that does not represent identity but actively produces and transforms it. The transformation of *The Sound of Music* image through media is simultaneously a transformation of what this image says about Austrian identity.

5.2 The Politics of Sound in Public Space

By deploying an LRAD, a device otherwise situated in contexts of border regimes and power technologies, sound itself becomes political. The sonic beam has direction, reach, intensity, regulation, and it produces inclusion and exclusion. Directional sound is here consciously inverted: not warning, deterring, but carrying, connecting, culturally charged.

The conflict with local residents as well as media coverage make clear how normatively sound in public space is regulated. Although the performance complied with technical and legal limit values, it was nevertheless subject to complaints, emotions, and political negotiations. This points to a central insight:

What is considered 'too loud' is not solely a question of decibels but one of context, meaning, and power.

The installation exposes these mechanisms and shows how sound becomes a social field of negotiation. The work also demonstrates that public space is not only organized visually or legally, but also acoustically. Who can be heard, across what distance, and with what force, becomes a question of power. In this sense, sound operates as a means of territorial inscription that parallels contemporary border regimes.

5.3 Error, Noise, and the Aesthetics of Imperfection

An essential component of *The Scream of Music* is the acknowledgment indeed, the productive use of errors:

Unrecognized yodel samples, shifts through wind, distortions of sound transmission, reflections on the water surface, the acoustic base load of the city, algorithmic uncertainties.

These 'errors' are not deficits but epistemic events. They show that transmission is never complete; that every medium leaves traces of its own materiality; that identity is not smooth but fragmented.

The reconstructed image from postcards, with gaps, shifts, repetitions, becomes the visual expression of this imperfection. The median view of identity as ordered whole dissolves and makes way for an aesthetic as well as political reality:

Identity becomes sensory not through completeness but through the visible and audible traces of its production processes.

5.4 The Role of the Public: Perception, Expectation, and Cultural Tension

The reception of the work revealed a tension between audience expectations and the actual logic of the installation. Many visitors initially anticipated a finished image or a clear message. Instead, they encountered a slow, manual, and visibly contingent process of reconstruction.

This shift redirected attention from recognition to observation. By exposing the temporal and material effort required to produce an image, the work challenged habitual expectations shaped by digital media, immediacy, completeness, and automation. The public, became engaged not with a result, but with the conditions under which meaning is produced.

The handling of *The Sound of Music* motif reveals a vertical stratification:

For some it marks nostalgia or ironic distance; for others it is a cultural cliché that evokes ambivalent feelings; and for still others it is not recognized as a motif at all but perceived only as a sound event in public space.

This reveals another insight:

Medial transformation changes symbols not only formally but shifts their cultural ownership structure.

5.5 Art as a Practice of Revealing Infrastructures

The installation unmask those structures that otherwise remain invisible:

- the acoustic ecology of the city,
- the political and juridical regulatory systems of sound,
- the algorithmic filters that shape perception,
- the military origins of certain technologies,
- the cultural encodings embedded in seemingly '*neutral*' symbols like a film image.

In this respect, *The Scream of Music* connects to positions from Chapter 3 (Young, Abu Hamdan, Kubisch, Neuhaus, Ere, Schlingensiefel):

The work uses sound not to represent but to make visible, or rather audible, how power, space, and identity are intertwined. It is therefore not only an audiovisual experiment but a critical practice that exposes the conditions of its own possibility.

Eco writes that there are means of communication that are not controllable, neither by private will nor by a collective. Before them we are all "*proletariat*". (Eco, 1985, p. 153)¹³ *The Scream of Music* makes this uncontrollability productive: medias are not neutral but have their own logics that escape control, whether through wind, reflection, algorithmic uncertainty, or social reaction.

5.6 Final Reflections: Medial Transformation as Critical Method

Lischka and Weibel describe how media compete with art: However, this auratization in a very ordinary way already has an effect as mediatization as such, because whatever the media do and show is an exaggeration or detachment from everyday life, from life as such, which is thereby removed. And this is where the media compete with art, forcing it to expand into the diversity of the media. (Lischka & Weibel, 2004, pp. 8–9)¹⁵

The Scream of Music responds to this competition by making mediatization itself the artistic material.

Returning to the research question of how symbols of national identity change through medial transformation, this thesis proposes transformation itself as a critical method. The repeated translation of the *The Sound of Music* image does not stabilize meaning but continuously displaces it.

The practical investigation shows:

Symbols of national identity change through medial transformation because this transformation makes their construction visible.

In the case of *The Scream of Music*, this means:

- *The Sound of Music* image is not destroyed but made newly readable.
- Its cultural layers only emerge through the transmission chain.
- Technical precision and political meaning are not separate levels but mutually produce each other.
- Social reactions: approval, irritation, resistance, are not '*background noise*' but integral parts of the knowledge process.

The Scream of Music shows that critical artistic practice does not consist in illustrating messages but in designing processes in which perception, technology, and publicness are set in motion with each other. In this movement, the mechanisms become visible through which identity emerges and through which it is transformed.

If there is a lesson to be drawn from *The Scream of Music*, it is this: **critical art does not resolve contradictions. It stages them.**

The premature termination, the noise complaints, the algorithmic misrecognitions, all are evidence that the installation touched something real. It exceeded the boundaries of the permissible, not by breaking laws, but by making audible what is usually kept quiet: that national symbols are weapons as much as they are images, that public space is a site of acoustic as well as visual control, and that identity is not given but made: precariously, noisily, and always controversial.

The scream, in the end, is not the sound of a nation. It is the sound of the systems through which nations claim to speak.



*Figure 26: Rooftop view, Kunstuniversität Linz.
Photo credit: Eva Maria Dreisiebner.*



*Figure 27: Presentation on the Ars Electronica Center (AEC) Main Deck.
Photo credit: Eva Maria Dreisiebner.*



Figure 28: Presentation on the Ars Electronica Center (AEC) Main Deck, alternate view.
Photo credit: Eva Maria Dreisiebner.



Figure 29: Rendering of the Ars Electronica Center (AEC) Main Deck.
Credits: Lisa Ackerl.

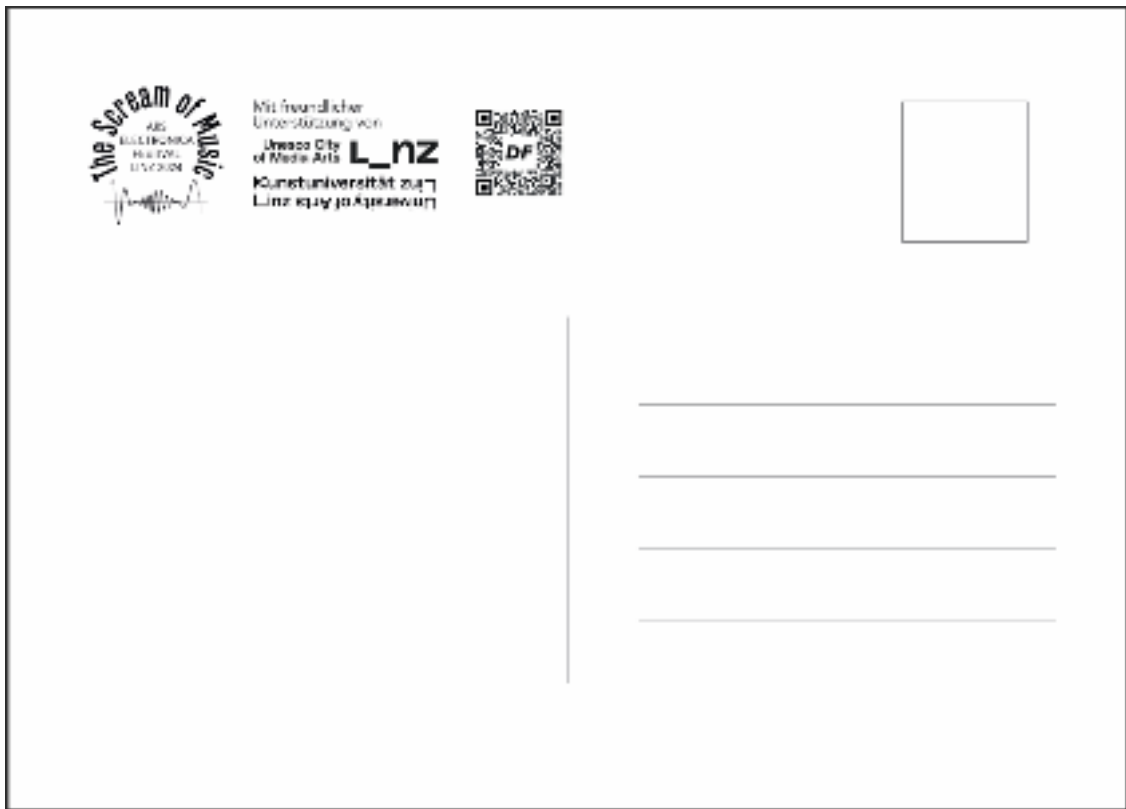


Figure 30: Postcard *The Scream of Music*. Back. credits: Daniel Fischer



Figure 31: Postcard *The Scream of Music*. Front. credits: Daniel Fischer

Notes

- ¹ *"Die Stadt ist ein Produkt, das erst im komplexen Zusammenspiel von räumlicher Praxis, Repräsentation des Raumes und Räumen der Representation bzw. von Wahrgenommenem, Konzipiertem und Erlebtem entsteht."* (Schmid, 2005, p.25)
- ² Eco beschreibt, dass die Medien „nicht Ideologien transportieren, sondern selber die Ideologie [sind]“, weil „das unaufhörliche, gleichförmige Bombardement der Medien“ die Inhalte nivelliert und die Empfänger „in eine Situation der Entmündigung“ versetzt (Eco, 1985, pp. 146–147)
- ³ *"Der Empfänger hat beim Empfang der Botschaft stets einen Rest von Freiheit, nämlich ich sage ›anders‹, nicht ›falsch‹"* (Eco, 1985, p. 149)
- ⁴ *"Die Interpretationsvariabilität ist das Grundgesetz der Massenkommunikation. Ihre Botschaften [...] gelangen in sehr verschiedene soziale Situationen mit sehr verschiedenen Codes"* (Eco, 1985, pp. 151–152)
- ⁵ Laut Eco unterscheidet die Informationstheorie grundsätzlich „zwischen ›Bedeutung‹ und ›Information‹“: Bedeutung entsteht durch „Ordnung“ und „Redundanz“, während Information als „Virtualität möglicher Ordnungen“ verstanden wird, die mit wachsender „Unvorhersehbarkeit, Mehrdeutigkeit [und] Unordnung“ zunimmt (Eco, 1990, p. 168)
- ⁶ Eco betont: *"Das Rauschen ist eine Störung, die im Kanal auftritt und die physische Struktur des Signals verändern kann [...], wodurch das Erlöschen des Lämpchens fälschlich als Botschaft verstanden wird"* (Eco, 1990, p. 93)
- ⁷ Eco (1990) schreibt, ein „Ton“ sei nicht einfach ein physisches Ereignis, sondern ein „Intentionsprodukt“, das nur deshalb als Ton erscheint, weil es *"vom Empfänger als solcher erkannt und von allen anderen Vibrationsmöglichkeiten unterschieden wird"*. (Eco, 1990, pp. 130–131)
- ⁸ Eco argumentiert, dass die eigentliche Bedeutung einer Botschaft erst „aus der Beziehung zwischen Signal und Empfänger entsteht“, denn „die semantische Zuordnung ist niemals vollständig im Signal enthalten, sondern ergibt sich aus der Situation und der interpretativen Tätigkeit des Empfängers“ (Eco, 1990, pp. 132–133)
- ⁹ *"Durch die digitalen Techniken ist das Polylogische als freies Flottieren der Signifikanten nochmals gesteigert worden. Denn ist das Analoge noch verhältnismässig eindeutig zu decodieren, so ist das Digitale eine Metamorphose, die Information in energetischer Form überträgt. Sie kann referentiell und nicht referentiell wahrgenommen werden. Dieser Umstand ist auch dafür verantwortlich, dass es digitale Kunst so schwer hat, als solche erkannt zu werden, weil das Digitale selbst bereits meisterhaft wie von Zauberhand geschaffen erscheint."* (Lischka & Weibel, 2004, p. 10)

- ¹⁰ *"Diese Auratisierung in ganz ordinärer Weise bewirkt aber bereits als Mediatisierung als solche, denn was immer die Medien auch tun und zeigen, ist eine Überhöhung oder Abhebung vom Alltäglichen, vom Leben als solchem, welches dadurch entrückt wird. Und genau da konkurrenzieren die Medien mit der Kunst, die sie dadurch zwingen, sich in die Vielfalt der Medien zu erweitern. Diese Expansion ist ein Teil der scheinbaren Grenzenlosigkeit der Kunst geworden."* (Lischka & Weibel, 2004, p. 8–9)
- ¹¹ Eco describes modern art forms as works that create *"ein 'Ereignisfeld', eine 'Ambiguität' der 'Situation [...], die von Mal zu Mal verschiedene operative oder interpretative Entscheidungen auslöst"* (Eco, 1990, p.46)
- ¹² Eco demands as *"Guerillataktik", die "nicht am Ausgangspunkt der Kommunikation gewonnen wird, sondern an ihrem Ziel", indem man "die Botschaft im Augenblick ihrer Ankunft" diskutiert und "die vielfachen Interpretationsmöglichkeiten kontrolliert"* (Eco, 1985, pp. 154–155)
- ¹³ Eco writes that *"es Kommunikationsmittel [gibt], die [...] nicht kontrollierbar sind, weder vom privaten Willen noch von einem Kollektiv. Vor ihnen sind wir alle [...] Proletariat"* (Eco, 1985, p. 153)

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