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Master's Thesis

Vibrant Matter in the Performative Apparatus: Sound, Bodies and Movement in Stefanie Egedy's "BODIES AND SUBWOOFERS (B.A.S.)" and Doris Uhlich's "TANK"

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1. Introduction

Just before Sónar Festival Istanbul 2024 was about to open its doors for the audience on April 26, the curatorial team around Hatice Arıcı became nervous that sound would move architectural bodies and create unsafety for the audience. The reason for this feeling of panic was evoked by Stefanie Egedy's sound installation *BODIES AND SUBWOOFERS (B.A.S.)* which was programmed at Sónar+D.

Sónar Istanbul is an annual festival incorporating music, innovation & creativity. During the afternoons and evenings experimental art works are exhibited at the SkyLounge of Zorlu PSM Center Istanbul as Sónar+D (Sónar Istanbul 2024). During the evenings, there are several DJ sets on three different stages in this cultural center. Stefanie Egedy's *BODIES AND SUBWOOFERS (B.A.S.)* is an installation with 12 SL subwoofers that sets human and non-human bodies into vibration. In the building of Zorlu Center Egedy's work was shown on the top floor, above the big stage where DJs such as Marcel Dettmann were playing. Their set-up was not only about a perfect organized and functioning sound system, but also about a huge technical set-up of lights. When Egedy's work was being played during a rehearsal, a light technician – from the stage exactly under the Sky Lounge – reported that the screw of a light loosened by the power of the sound from *B.A.S.*¹ The curators started to debate if Egedy could create a second less powerful version of the installation in case nobody could check the technical set-up downstairs before the DJs were to go live.

For my research about vibrant matter and relations between sound, bodies and movement I accompanied Stefanie Egedy during the process of set-up, composition and performances at Sónar+D Istanbul 2024.² I am interested in how the set-up of 12 SL subwoofers can be contextualized as a performative apparatus and how the subwoofers become vibrant matter as soon as they start to play. This thesis investigates the relationship between how sound moves human and non-human bodies and analyzes Stefanie Egedy's work *BODIES AND SUBWOOFERS (B.A.S.)*. With the just described anecdote I want to open my field of research to situate itself at the interface of critical dance and sound studies.

¹ *B.A.S.* is the short version of *BODIES AND SUBWOOFERS (B.A.S.)* and will be used equally.

² The research trip to Sónar Istanbul is essential to the phenomenological analysis of *B.A.S.* It was supported by a grant from Begabtenförderung of the municipality of Siegsdorf.

In Stefanie Egedy's work bodies play an important role, though she identifies as a sound artist. To enrich the field of research of the in-between of dance and sound studies, a choreographer's and dancer's perspective is analyzed as well. Doris Uhlich's work *TANK* is examined by looking at similar questions concerning vibrant matter in the performative apparatus.

TANK is a performance by Doris Uhlich in collaboration with the musician and composer Boris Kopeinig. The central element on stage is a tank that was built by the Berlin collective *Proper Space* (Angela Ribera, Konstanze Grotkopp, Juliette Collas). Uhlich is moving mainly in and partly around the tank and is questioning topics around bodies and new technologies. The tank becomes the space to study and to transform the body (Uhlich, Doris 2024b). What is striking in watching and experiencing the solo performance is how movement and sound interact. Kopeinig's sounds and Uhlich's body create vibrations. Sound waves are spreading through space and there is no clear division of the performer's space on stage and the audience's space as the sound is common and shared in both spaces. Uhlich's movements create a visual idea of a vibrating body, even a visualization of vibrating flesh for the audience to see. I experienced *TANK* in October 2021 in Sophiensaele Berlin. For this research – next to my personal experience and notes of this performance – the analysis will be supported by a video recording of *TANK*.³ Doris Uhlich has collaborated on many works with Boris Kopeinig, and I chose *TANK* because I am interested in the stage design, and how this becomes a site-specific element in the performance and in the context of the relationship between sound and dance.

Egedy's and Uhlich's works both have roots in club culture. Stefanie Egedy used to be a "professional clubber" (Folguera Santi Vilanova, Antonia et al. 2024) diving into many DJ sets, trying to understand how a set is composed and organized and how it affects the dancing body. Investigating the bodies' sensations she discovered that sensing low frequencies, moving with, and being moved by them is the reason for her pleasure in clubbing. That's how she started to develop *BODIES AND SUBWOOFERS (B.A.S.)* that is a site-specific sound installation with subwoofers only. Egedy is Brazilian, she lives in Berlin and has a background in public administration and philosophy. During her studies in these fields, she started a parallel career in DJing. Driven by her bodily sensations in dancing in the clubs she

³ Thanks to Doris Uhlich and Margot Wehinger who is responsible for production and management in Uhlich's projects I have access to a recorded video of the premiere of *TANK* that was filmed at tanzhaus nrw, Düsseldorf on March 14, 2019. (Uhlich, Doris 2019)

always finds the best places to dance where the sub-bass frequencies are resonating within the body. Going to a few DJ sets at Sónar with Egedy I can confirm that after a while you would understand where to find her on the dance floor (Egedy, Stefanie interviewed by Udvardyova, Lucia 2022). Next to DJing Egedy creates compositions in the field of experimental music and creates conceptual pieces and soundtracks. She collaborates with artists from different disciplines such as Camille Laurent or Alexis Blake. She considers the subwoofer her instrument working with infra-sound and sub-bass and develops her work also in the direction of therapeutic effects. As infrasound is inaudible, it has another effect on the body, and one listens to it differently (Egedy, Stefanie 2024a).

Doris Uhlich is an Austrian choreographer, dancer, performer and pedagogue. She has a wide range of creating different works that involves solo works, collaborations with people with different backgrounds and mixed abilities. In most of her works, she collaborates with the musician, composer and DJ Boris Kopeinig. She shows potentials of nakedness beyond eroticism and provocation. For example, in *Habitat* she creates an ensemble of up to 120 naked professional and non-professional performers raving to Techno music. *Habitat* was shown in many different places – on stages and site-specific – and is still recreated in different cities throughout Europe, always with a new ensemble with people that live in and around the place where the performance is happening. Uhlich also researches relations between humans and machines and questions the wish for perfectionism in society that is provoked by cosmetic surgery. Ballet and a possible translation to a contemporary approach is also part of her work. To give an example *Schwan am See* can be mentioned which was just recently shown in Attersee as part of Kulturhauptstadt Salzkammergut 2024. Music always plays an important role in Uhlich's creations, mostly electronic music from New Wave to Techno created by Boris Kopeinig. She won prizes and nominations and is teaching at Max Reinhardt Seminar and Universität für Musik und Darstellende Kunst (mdw) in Vienna (Uhlich, Doris 2024a).

Before continuing with the methodology, a literature review for this work and a short overview of what is to come I want to shortly introduce myself and my own situated knowledges.⁴ My name is Stefanie Alf, I am using the pronouns she/her. I am 1.69m tall, I have shoulder-length brown slightly curly hair, brown-green eyes, and I identify as non-

⁴ Implementing this term and its notion, and applying it to this work, I am referring to Donna Haraway's essay "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective" (Haraway, Donna 1988, 577–99).

disabled. I have a background in dance, music, and choreography. I came across Stefanie Egedy's work in an artistic interest as I created a low-frequency sound installation for one of my last choreographic projects. Experiencing low frequencies and its effects on bodies in space in my own artistic process allows me to look at Egedy's work not only from an audience perspective, but also from an experiential approach. I am fascinated by the bodily sensation and experience with low frequencies and feel a certain addiction to the work of Egedy. I first encountered her work at the beginning of 2024 in a three hour long improvised low-frequency concert in After, Berlin. With Doris Uhlich's work I am familiar since 2019. During my studies in Music- and Dance Education at Orff Institut, Mozarteum Salzburg, I met Uhlich and Kopeinig in the context of a workshop. As a participant and dancer, I got a very direct access to Uhlich's work by generating bodily knowledge through following her tasks in the classes. I experienced her approaches about letting the flesh dance and how bouncing, shaking and energetic movement icons can generate these sensations. The workshop was co-led by Boris Kopeinig. He was live-DJing – reacting and giving prepositions in dialogue with the dancing in space to enrich the qualities of movements and energy that was created together. Having live bodies and live produced electronic sound at the same time in space was very exceptional to experience – especially how they interact and affect each other. Before I saw *TANK* at Sophiensaele in 2021, I saw *Unkraut* (2019) at Szene Salzburg, a piece for young women, choreographed by Uhlich and just recently saw *SONNE* at the Tiroler Landestheater Innsbruck. In my own artistic work as well as in theoretical research I have a strong interest in site-specific works. Though the version of *TANK* that I am familiar with is a stage version, there are site-specific versions as well and I would consider the work that was developed inside the tank as such as site-specific. I am also interested in *listening* as a research topic since some time, both on a political dimension and in working with it in various contexts of artistic research. I am curious of how we experience sound not only through hearing with our ears, but with multiple senses.

This master's thesis takes listening as sensing sounds with the body and experiencing the effects of vibrations as a starting point. It aims to contextualize how an artwork can be considered a performative apparatus and how matter becomes vibrant matter as soon as the apparatus becomes alive. The interplay between vibrations, bodies, sound, and movement will be explored by looking at Stefanie Egedy's and Doris Uhlich's work: How can sound be experienced as vibrant matter? How do sound and movement move in space and create

vibrations that the audience's bodies can sense? How can parallels be drawn by analyzing a composer's and a choreographer's work when it comes to vibrant matter in space? Analysis of Stefanie Egedy's *BODIES AND SUBWOOFERS (B.A.S.)* and Doris Uhlich's *TANK* through the lens of movement and sound will seek to answer these questions.

The project's methodology uses a mixed method. Stefanie Egedy's and Doris Uhlich's work will be explored and contextualized by a discourse analysis combined with a phenomenological analysis. Given the nature of the topic, an interdisciplinary approach combining dance studies with sound studies seems appropriate to understand the works through a third perspective that does not evolve from either of the two disciplines. I decided on working with two main texts of the field of material culture studies. The choice to contextualize *BODIES AND SUBWOOFERS (B.A.S.)* and *TANK* with Jane Bennett's text *Vibrant Matter: A Political Ecology of Things* (Bennett 2010) and Karen Barad's article *Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter* (Barad 2003) is made by the following considerations: On the one hand, the two performative works that are analyzed are both created by female identifying artists. It is important to me to be aware of patriarchal structures and I want to emphasize that it is not a coincidence how two female identifying artists and thinkers come together in this master's thesis as the ground for the research. On the other hand, observing Egedy's working method and being part of the process at Sónar+D Istanbul 2024 I was impressed how the materiality of space, the subwoofers and human and non-human bodies in space were composed. Taking Bennett's work *Vibrant Matter: A Political Ecology of Things* literally by defining subwoofers as matter that vibrates, a close reading of this text will be essential of the methodology. Bennett talks about an assemblage of how things are assembled (Bennett 2010, 20–39). As this cannot be applied to Egedy's work because the subwoofers are intentionally set up by her, Karen Barad's article *Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter* comes into play. Exploring both theoretical texts I seek to understand how sound and movement can be posed as vibrant matter inside the performative apparatus. Combining close reading with a phenomenological analysis of the works my experience as an audience member with a background as a dancer and musician adds an embodied knowledge. It is reflected by looking at these texts and by the process vice versa. The bodily and sensual experience of the works and field research collecting audience's quotes about their experience enriches the outcome to the asked questions and roots the work clearly in the field of critical

dance studies. Concerning Uhlich's work the same texts are applied to study the performance in this context. A video analysis of some movement sequences in relation to sound supports my memory of watching the performance. Referring to a video recording of *B.A.S.* does not make sense as the experience is very much related to space and the present bodies. To be transparent it should be mentioned that the methodology was first built around the interest in Stefanie Egedy's work. Doris Uhlich's work came in at a later stage, nevertheless looking at both works enriches the process of questioning and the discussion on the topic of vibrant matter in the performative apparatus.

As mentioned above the master's thesis approaches a strong theoretical grounding in concepts of material culture studies with Jane Bennett's *Vibrant Matter: A Political Ecology of Things* and Karen Barad's *Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter* touching upon agential realism. Taking these researchers as a starting point in the theoretical frame ideas of other theoreticians they are referring are relevant as well. Thoughts by Baruch de Spinoza, Felix Guattari, Gilles Deleuze, Bruno Latour, Hans Driesch, Henri Bergson to whom Bennett refers to or Nils Bohr and Michel Foucault to whom Barad refers to get subject of study. Bennett positions herself in the tradition of Democritus whereas Barad makes clear that the physicist Bohr who is one of the main researchers she is referring to is breaking with the line of thoughts of Democritus, Descartes and Newton. Bohr offers another epistemological perspective. Barad elaborates on his findings towards an ontological theory of agential realism. Discourse analysis as a method and term in this project involves Michel Foucault to whom Barad is referring to as well. With Foucault and a clear positioning within discourse analysis, questions around power are always included as well as discourses around reality constitutions and epistemology. Barad's text was published in 2003, Bennett's text in 2010 – they are highly relevant in material culture studies. Barad's article is especially interesting in the field of critical dance studies as she suggests a

specifically posthumanist notion of performativity – one that incorporates important material and discursive, social and scientific, human and nonhuman, and natural and cultural factors. (Barad 2003, 808)

Along with this complexity in her thinking, I try to unfold some of her thoughts by applying them to performative art works. As Egedy and Uhlich are both contemporary artists I want to include their voices as well and will implement various interviews, such as Joana Burd who interviewed Stefanie Egedy for her PHD project on vibrations (Egedy, Stefanie

interviewed by Burd, Joana 2023). As I introduced the artists earlier, their own websites with biographies, artist statements and project descriptions build the ground for the descriptions. I also refer to published articles and press reports about Egedy's and Uhlich's works.

Concerning low frequencies in Egedy's work some thoughts are grounded with the article *Below 100 Hz: Toward a Musicology of Bass Culture* by Robert Fink (Fink 2018) as well as referring to Steve Goodman and Julian Henriques as they add a perspective from sound studies. Some notions from Holger Schulze's *The Sonic Persona: An Anthropology of Sound* (Schulze 2018) are applied to Egedy's work. Following him with a few thoughts on his research on the anthropology of sound it will further support the line of thoughts by deepening the understanding and analysis of listening in these works. How and why is listening becoming a sensual experience with the full body opposed to hearing with the ears? Can listening be experienced as a mode of perception with different senses?

Just recently, I met the artist, researcher and pedagogue Rasmus Ölme at Impulstanz Festival Vienna 2024 who is conducting artistic research into the materialist aspect in movement material.⁵ His published text *Movement Material* (Ölme 2017) is applied to the analysis of Uhlich's movements in *TANK*. In general, I am situating my perspective of looking at Egedy's and Uhlich's work in a feminist-posthuman approach mixed with embodied knowledge.

The thesis is structured in two main parts. In the first part, Stefanie Egedy's *BODIES AND SUBWOOFERS (B.A.S.)* is analyzed, and, in the second part, the analysis of Doris Uhlich's *TANK* is the focus of the research. The two parts are each divided in three subchapters along the same questions. First the set-up (in *B.A.S.*) or stage design (in *TANK*) as such will be examined by looking at how the installation of set-up and stage design can be defined as performative apparatus. Secondly, the focus shifts on how set-up/ stage design becomes vibrant matter as soon as the apparatus comes to life. Thirdly, resonances in human and non-human bodies and the reception of the works are analyzed with attention to how each piece exemplifies the interactions between sound, bodies, and movement. Analysis of the audience's role are embedded in the detailed analysis of *B.A.S.*

⁵ I was attending the five-day workshop "Movement Material" by Rasmus Ölme at Impulstanz Festival 2024 from July 22-26. He was referring to his artistic research on the materiality of movement and facilitating an embodied understanding of his developed ideas and concepts, for example about spatiality, suspension and stillness.

I will conclude with a short comparative analysis of the works to gather and discuss the findings from the analyses and contextualize them with each other. Questions about the future of listening to music and the future of the body are being raised by keeping the focus on the interplay of sound, bodies and movement in the context of material studies and by reinforcing Barad's notion of posthuman performativity. Ultimately, I seek to understand how Egedy and Uhlich challenge or conform to existing paradigms in the performative arts.

2. *BODIES AND SUBWOOFERS (B.A.S.)* by Stefanie Egedy

2.1 The Set-Up as Apparatus

To analyze the set-up of Stefanie Egedy's work *BODIES AND SUBWOOFERS (B.A.S.)* in the context of vibrant matter in the performative apparatus I want to first introduce Egedy's methodology. I am referring to an interview by Joana Burd, my experience of accompanying her at Sónar+D Istanbul 2024, and video recordings in which Egedy talks about her work.

Her methodology consists of three steps. First, the space and its dimensions are being studied. Depending on the size of the space, its architectural characteristics, how many speakers are available and the arrangements with the curatorial team, she creates a set-up. The set-up is the starting situation for the composition later and for creating the most vital experience for the audience. The speakers are not only sound generating instruments, but they generate a sculptural installation that has an impact on the audience's experience. Looking at various locations where *B.A.S.* was being played, there are different set-ups, such as *B.A.S. 6.0: TRIPLE R-45*, *B.A.S. 4.0: DOUBLE R-45* or *B.A.S. 12.0 Presence* whereby the number stands for the amount of speakers. At Sónar+D Istanbul Egedy decided for *B.A.S. 12.0*, using 12 subwoofers, all the same type, set up in triple circles (cf. Fig.1). As a second step, when Egedy decided for the set-up and as soon as this is built in space, she starts to play the subwoofers. She follows a creative methodology of experimenting with sub-bass frequencies in this specific arrangement and space. Each space resonates different. This leads her to explore her bodily experience, especially how various frequencies resonate with human and non-human bodies in space. She works on finding "transparent" (Egedy, Stefanie interviewed by Burd, Joana 2023) sound waves, that have almost no resonance with the space, but therefore with the human body. Of course, it is impossible to eliminate the non-human bodies resonances, therefore, she follows her sensation of a pleasant bodily experience in the listening. The third step in Egedy's methodology consists of the compositional part. She creates a compositional structure and soundtrack with the frequencies she decided for in this specific space. Her work can be considered site-specific. Quoting Tate's online glossary about art terms, site-specific means "designed specifically for a particular location and that [there is] an interrelationship with the location" (Tate 2024). Egedy mentions that the context and

expected audience plays an important role in her methodology as well. This refers to the interrelationship with the location that is not only reduced to its spatial conditions.

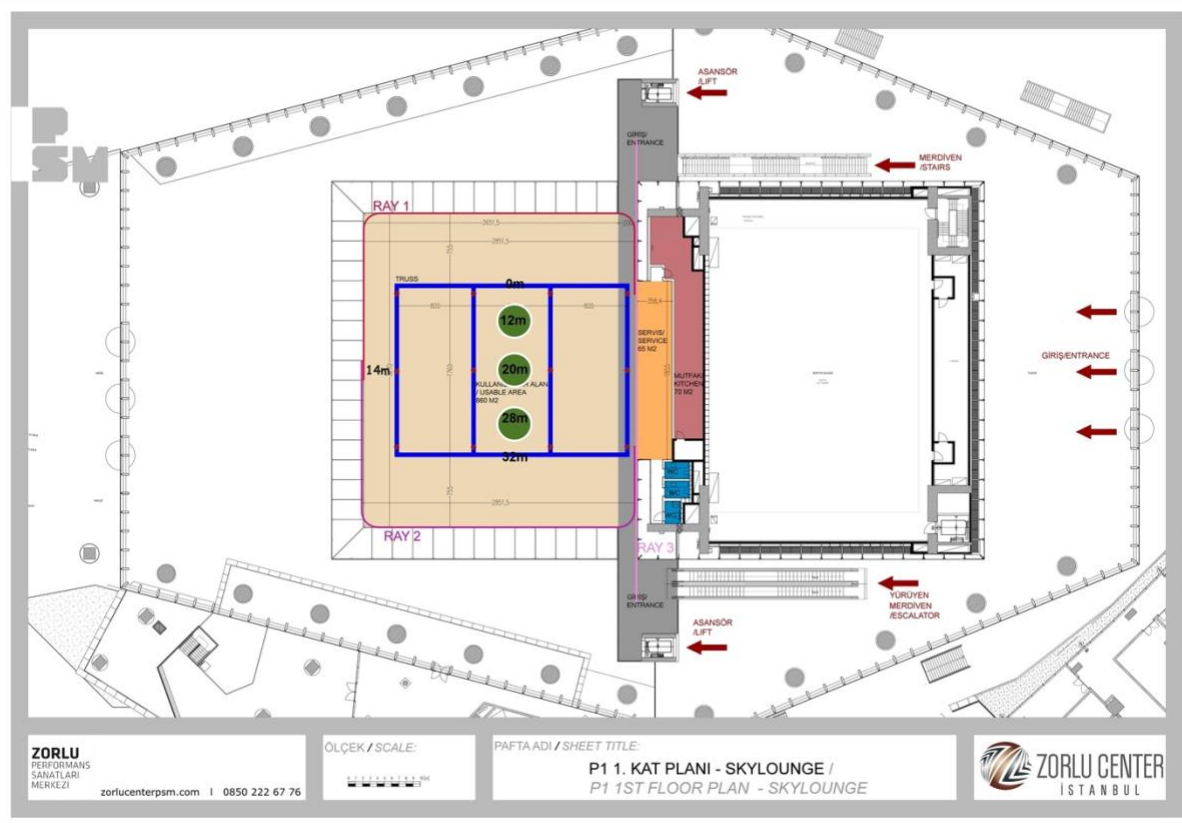


Figure 1: Zorlu PSM Skylounge, B.A.S. TRIPLE CIRCLES SET-UP by Stefanie Egedy

In this depiction the space and set-up at Zorlu PSM Skylounge at Sónar Istanbul is illustrated. The Skylounge is on the top floor of Zorlu and the beige colored part is the place where B.A.S. was installed. Around the beige area black theatre curtains closed the space, however there is no wall, but the space is an open architecture to the walls of the building which is the diamond shaped line on this plan. The three green circles illustrate three subwoofer circles, each of them built by four subwoofers. The circles are placed symmetrically in space. The subwoofers are placed on the floor, the membrane is facing the outside of the circle, and the edges are touching each other, so that there is a square inside each sub-circle (cf. Fig.2). As Sonar+D is a group exhibition context, there were four more art installations in the beige area around Egedy's set-up. They were not directly interacting with each other; however, they are part of the space and therefore have an impact on the experience.



Figure 2: Set-Up B.A.S. TRIPLE CIRCLES at Sónar+D Istanbul 2024. Photo by Stefanie Alf

This introductory explanation and description of *B.A.S. 12.0 TRIPLE CIRCLES* at Sónar+D leads to the first part of the discourse analysis in this master’s thesis project where it is discussed why the set-up can be contextualized a performative apparatus. In *Vibrant Matter: A Political Ecology of Things* Jane Bennett explores the concept of how things have a certain vibrancy, power and agency. She juxtaposes “dull matter (it, things)” and “vibrant life (us, beings)” (Bennett 2010, vii) at the beginning of the preface of her work and pleads for *vibrant matter* as a concept of how to explore the world differently. She argues for *thing-power* that influences human actions and the world, and advocates for a new political ecology that recognizes the active role of matter in shaping societal and environmental dynamics. Bennett follows a thinking on materialism in the tradition of Spinoza, Deleuze and Guattari. In her theory the thing as such already has an agency and vibrancy (Bennett 2010, viii) whereby her thoughts and ideas unfold by applying them to various situations and thing constellations. In chapter two, she analyzes the electric power structure as an agentic assemblage along the event of a power blackout in North America in 2003. During the research process around vibrant matter in *B.A.S.* questions arise why the set-up is not an assemblage, although vibrant matter can be contextualized in this work in its most literal sense. According to Bennett who follows Deleuze and Guattari in their theories, “assemblages are ad hoc groupings of diverse elements, of vibrant materials of all sorts” (Bennett 2010, 23).

Assemblages are not led by any centralized entity, there is no equal distributed agency to each individual piece that is part of the assemblage and materials do not have predetermined characteristic of how they influence the group of assembled materials. The assemblage's force and power are indifferent from the sum of each individual materiality and assemblages are never an enclosed entity, but an "open-ended collective" (Bennett 2010, 24). She adds Spinoza's concept of *affective bodies* which means that bodies steadily affect each other and are affected by each other. Implementing this thought to the characteristics of assemblages criticizes theories that center the humans with their agency (Bennett 2010, 20–24). Applying Bennett's thoughts to *B.A.S.* it becomes clear that Stefanie Egedy is a central figure who creates a set of materialities in space. *B.A.S.* is not an assemblage of materialities by itself but a created installation by a human. However, the force and experience of the activated *B.A.S.* evokes some characteristics of an assemblage to which it will be referred to in the next chapter. But before looking at what happens when *B.A.S.* is activated, Karen Barad and her thoughts on the apparatus in her article *Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter* comes into play.

Barad starts to define an apparatus by what it is not. She exemplifies how apparatuses are neither devices nor instruments or machines that are created and built to lead to a certain planned outcome. They have no boundary and are not closed entities. Referring to her elaborations on Bohr's research she suggests to rather than defining them as "arrangements in the world" to look at them as "(re)configurations of the world" (Barad 2003, 816). She further defines apparatuses as "open-ended practices" (Barad 2003, 816). These thoughts about the apparatus can be applied to *B.A.S.*: in one of Stefanie Egedy's videos about *B.A.S.* and her practice she describes her research question by asking how "interactions with sub-bass and subwoofers [...] offer new possibilities in creating realities" (Egedy, Stefanie 2021). This question which implies an intentional purpose, deals with Barad's notion of (re)configuring the world. How does *B.A.S.* create a reality? How do Egedy's interactions with sub-bass (re)configure the world in and through a performative setting? And how is this transported to the audience in the experience of *B.A.S.*? These and more questions are raised in this chapter and possible answers are being discussed in the following chapters. Barad's definition and *B.A.S.* as performative apparatus also interplay by approaching the apparatus as a practice that is open-ended. This brings Egedy's practice and methodology back which shows that *B.A.S.* is clearly practice-based and in a way open-ended as its installations are developed site-specific

and as the set-up is not fixed beforehand but developed on spot. Apparatuses are – quoting Barad – “open to rearrangements, rearticulations, and other reworkings” (Barad 2003, 817) and therefore, they are phenomena. Barad uses the term phenomena in the context of her theoretical elaborations on agential realism. She claims that there is no separation between observing and being observed and explains how relational proportions can be witnessed instead. This includes that there are no independent objects with borders or boundaries, but “intra-acting components” (Barad 2003, 815). This “ontological inseparability of agential intra-acting components” (Barad 2003, 815) are phenomena. According to her explanations, this is where the difference is between interaction and intra-action: interaction postulates relations of preexistent inherent entities whereas intra-action regards relations without relata that are pre-inscribed before. In this sense, relata mean specific relational behavior of certain materials that come to light without being in intra-action. Thus, relata can appear within agential intra-action, but it goes back to a different notion of causality (Barad 2003, 814–15). Especially these thoughts on relational structures brings *B.A.S.* back. How can the inseparability of observing and being observed be applied to this performative apparatus? In which sense is relational ontology related to *B.A.S.*? Barad argues that apparatuses are in a process of intra-acting with other apparatuses. This thought resonates with the anecdote at the beginning of the thesis where it already becomes clear how everything is intra-related. Barad continues to develop her thought by explaining how established phenomena might change, furthermore, she states that “boundaries do not sit still” (Barad 2003, 817). Experiencing *B.A.S.* I can relate to this statement and would argue that *B.A.S.* exemplifies intra-actions of relata of phenomena. With this theoretical thinking Barad is offering an alternative on posthuman performativity – including discursive practices, materialization, agency, causality and naturalist elaborations (Barad 2003, 803, 811). She writes that “agential intra-actions are specific causal material enactments that may or may not involve ‘humans’” (Barad 2003, 517). This brings matter and non-human bodies to the foreground and shows how boundaries of supposedly contraries are constructed concepts. Apparatuses do not try to embody specific concepts by excluding the other, but they are material practices “through which local semantic and ontological determinacy are intra-actively enacted” (Barad 2003, 820).

Relating Bennett and Barad, there is some overlap in the notion of Spinoza’s *affective bodies* and Barad’s *agential realism* in terms of relations between bodies. Bodies constantly affect each other and are affected by each other which leads to ontological questions and

questions about concepts of bodies and matter. In the following chapter *B.A.S.* is analyzed from a materialistic perspective. The subwoofers are contextualized as vibrant matter in the moment they start to play: how are these subwoofers vibrant matter as such as soon as they vibrate in the performative apparatus?

2.2 12 SL Subs as Vibrant Matter

Matter is energy and we are in a dialectical relationship with it.
(Egedy in Hingley, Charlotte 2024)

Stefanie Egedy works with 12 SL subs from the SL – Spezial Lautsprecher – series of d&b audiotechnik as they offer the best characteristics for *BODIES AND SUBWOOFERS (B.A.S.)*. The version at Sonar+D is a twelve-minute-long piece that played several times a day. Egedy was sending frequencies between 30 and 35Hz to the speakers. In the moment Egedy presses play in her composition the subwoofers start to vibrate.

In this section, the focus lies on the vibrating subwoofers in *B.A.S.* that can be contextualized as vibrant matter in a literal sense. For this, first, a brief overview of Bennett’s elaboration on vibrant matter in *Vibrant Matter: A Political Ecology of Things* is offered, including locating chapter 5 in her line of thoughts, as later it will be referred to this chapter in more details in the context of *B.A.S.* Continuing the discourse analysis, some notions of Karen Barad will be discussed next to Jane Bennett. Furthermore, adding a sound studies perspective, Robert Fink’s essay on *Below 100 Hz: Toward a Musicology of Bass Culture* comes into play.

Bennett begins her exploration by introducing the concept of “*Thing-Power*” (Bennett 2010, 6) which refers to the idea that non-human materials and objects have a certain agency and vitality. She draws from various philosophical traditions, including the works of Spinoza, Deleuze, and Latour, to frame her argument that all matter, not just human, has a “vitality intrinsic to materiality as such” (Bennett 2010, xiii). In chapter 1 she tells an anecdote about a collection of debris⁶ she encountered on a Baltimore street, (Bennett 2010, 4–6) which leads her to consider the ways in which these seemingly inert objects exert force and influence on

⁶ *Debris* can be defined as “broken or torn pieces of something larger” (“Debris,” n.d.).

life. She delves into the philosophical notions of *thing-power*, examining how various thinkers have conceptualized the agency of non-human entities. Bennett revisits Spinoza's notion of *conatus* – the idea that everything strives to persist in its being – (Bennett 2010, 2; De Spinoza 2020, pts. 3, proposition 6). She also engages with the work of Bruno Latour, who in his actor-network theory argues for actants who can be human or non-human (Bennett 2010, 9; Latour, Bruno 1996). In Chapter 2 Bennett explores the implications of vibrant materiality as she contextualizes thing-power within the agency of assemblages. She develops her argument along a power blackout in North America in 2003 and refers to Deleuze and Guattari who formulated the notion of assemblage. In chapter 3 Bennett exerts her elaborations on food, thinking through her earlier formulated ideas with *edible matter*. As the book progresses, Bennett keeps working on breaking down the matter/life duality. Thus, chapter 4 is about nonorganic matter: she explores how and why metal can also be vibrant matter. In chapter 5, Bennett refers to three endeavors about vital force in matter, Kant's *Bildungstrieb*, Driesch's *entelechy* and Bergson's *élan vital*. (Bennett 2010, xvii–xix). Chapter 6 examines how stem cells challenge traditional boundaries between the animate and inanimate, the biological and non-biological. She develops a thinking that breaks with the life/matter binary by suggesting a vitalism of nonmaterial agents examining how stem cells are both lively and not (Bennett 2010, 92–93). Bennett explores the diverse ways in which matter exerts agency, from food to electricity to waste, ultimately arguing for a new ontology that recognizes the vibrant materiality of all things. In Chapter 7, Bennett exemplifies her theory with worms, and she ends with chapter 8 *Vitality and Self-Interest* by situating the self in “matter-energy” (Bennett 2010, xix). Throughout the book, Bennett invites readers to rethink their relationship with the material world, encouraging a more inclusive and ecologically sensitive approach to understanding the forces that shape our lives.

To contextualize Egedy's vibrating subwoofers in *BODIES AND SUBWOOFERS (B.A.S.)* a close reading of chapter 5 *Neither Vitalism nor Mechanism* with Bennett's references to Driesch's and Bergson's ideas seems most relevant. Referring to certain aspects of their thinking, they are discussed with *B.A.S.*

Henri Bergson and Hans Driesch who consider themselves “critical’ or ‘modern’ vitalists” (Bennett 2010, 63) define matter as something that is not predictable or

controllable.⁷ At the same time they try to follow a scientific approach naming this “*incalculability* to things” (Bennett 2010, 63) *entelechy* (Driesch) or *élan vital* (Bergson). Bennett argues that both get close to the idea of vital materialism, and she situates herself in this tradition or to put it with her words she “locate[s] [her] vital materialism in their wake” (Bennett 2010, 93).

Entelechy and *élan vital*, however, refer quite to an attempt to understand how organic life happens, as life by itself could be considered as a conglomeration of different materialities that becomes vital in its becoming. It tries to explain a possible opposite to just mechanic constellations, that are neither “psychical” (Driesch, Hans 1914, 33), nor anything soul related. As *B.A.S.* is by itself a nonorganic apparatus, but at the same time vital materiality or vibrant matter, to some notions of *entelechy* and *élan vital* is referred to in order to contextualize *B.A.S.* In his vitalism Bergson offers an idea of how matter articulates itself in space. Bergson does not go as far as defining matter as expanding spatially, he is still in the tradition of matter as inertia, nevertheless there is a clear “tendency towards spatialization” (Bennett 2010, 77; Bergson, Henri 1998, 202–3). This notion is quite striking to look at *B.A.S.* The subwoofers that start vibrating are matter, they might simply be considered as means to transport sub-bass frequencies and to create a sensual experience. But, at the same time, they are not just means to transport sounds, but they are fully part of the installation as the audience’s experience is more intense the closer they get to the speakers – until they are in touch and physical contact with them by lying on or leaning against them. The sounds that leave the speakers are spreading spatially, moving human and non-human bodies and setting them into vibration and recreating vibrant matter elsewhere. In this sense, it could be aimed for developing Bergson’s thought about matter’s potentiality in space towards the notion that vibrant matter can expand into space. Driesch, who is an embryologist, marks life different from matter as systems of objects can change, whereas only life has the capability to morph (Bennett 2010, 71). Concerning *B.A.S.*, this sound installation is an example that shows how vibrant matter as one of its many characteristics has the potentially to morph. The different frequencies that Egedy is sending to the speakers and that start sounding in space are morphing with each other, creating new sounds and different patterns depending on the space

⁷ Bennett refers to Frederick Burwick and Paul Douglass who argue that critical vitalists emerged “from a matter-based physics to an energy-based physics” (Bennett 2010, 140; Burwick and Douglass 1992, 1–12). This becomes an interesting background for *B.A.S.* as Egedy talks about “matter that is energy” (Hingley, Charlotte 2024).

and spatial conditions. Entelechy and élan vital are interesting concepts that mostly refer to human bodies. How could these ideas be applied to nonorganic matter constellations that create energy that is sensible? This question leads to look at a section in Karen Barad's *Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter* widening the perspective with her posthumanist perspective.

With Barad and her agential realism, she offers a concept or idea of not-fixed entities or materialities, but phenomena. There is already a clear distinction to Bennett's methodology as Barad is not referring to life/ matter binaries but trying to create another language and concept of how to think about relationalities. When it comes to defining matter Barad claims that matter is not a "fixed substance" (Barad 2003, 822);

Rather, matter is substance in its intra-active becoming – not a thing, but a doing, a congealing of agency. Matter is a stabilizing and de-stabilizing process of iterative intra-activity.

(Barad 2003, 822)

In this context, in the doing of creating and developing *B.A.S.* on the site-specific location, vibrant matter is never somehow there, but always evolving in the process. In the intra-active becoming of *B.A.S.* – that's apparatus consists of subwoofers, frequencies, space and Egedy's composition – vibrant matter emerges in the intra-action of phenomena. In that regard, not only the twelve subwoofers should be considered as vibrant matter, but the whole process of how vibrant matter is unfolding inside the apparatus of the sound installation. Integrating Egedy's methodology, Barad's notion on the "process of iterative intra-activity" (Barad 2003, 822) can be implemented in how Egedy reworks *B.A.S.* in every new location where it is being played. Every space resonates different, and matter is becoming in every doing. The agencies of phenomena that are part of *B.A.S.* can always be different, somehow incalculable. In the moment the subs are vibrating, matter is emerging. It is both stabilizing and de-stabilizing – listening to non-human vibrating bodies and observing their agency can create de-stabilizing sensations. This for example happened to the curatorial team at *Sónar+D*. At the same time, sensing sounds from the speakers can generate a very stabilizing bodily sensation.

Elaborating a lot on a philosophical approach on vibrant matter in *BODIES AND SUBWOOFERS (B.A.S.)* now a perspective from sound studies is implemented, offering a musical position on sub-bass as materialism and the material presence of the medium. A starting point for the following considerations is Robert Fink's essay *Below 100 Hz: Toward a Musicology of Bass Culture* from 2018.

Fink is using the terms “vibrational materialism” (Fink 2018, 89) as well as “sub-bass materialism” (Fink 2018, 89; Goodman 2009, 482). He refers to Goodman's *Sonic Warfare*, a political exploration on how sound can be used as tools of power and control. Potentialities of both extremely low and extremely high frequency as sounds on the border of humans' capacities in listening are most interesting to observe. At the limit of lower frequencies, the physicality of sound becomes quite perceptible, and goes as far as sub-bass has the power to “alter physical reality by vibrating, and thus decolonizing, the body politic as a whole” (Fink 2018, 89). Physical reality is being changed while experiencing *B.A.S.*, but this will be discussed in more details in the next chapter. Acknowledging that sub-bass has the power on influencing body politics is already a glimpse into Doris Uhlich's work, to which I will come to in the second part of this thesis.

Fink structures his essay in four chapters: first, he examines how sub-bass is felt in the human body, second, he talks about mysteries of bass propagation, third, he offers a subwoofer design and soundsystem guide, and fourth, subwoofers-money ratio in relation to financial questions is being analyzed. Referring to Henriques and his research on reggae sound systems, Fink grounds his elaborations on a practice in listening, acknowledging “the material presence of the medium” (Fink 2018, 100; Henriques 2011, 40). Following Henriques in his book *Sonic Bodies: Reggae Sound Systems, Performance Techniques, and Ways of Knowing*, next to the notion of the materiality of the medium, he is implementing how movement and a corporal dimension in perceiving sound is part of listening (Henriques 2011, 40). Coming back to *B.A.S.*, Fink offers a theoretical grounding for understanding the relationship between sound, vibrating materiality, and bodies. To this I will refer to in the next chapter.

As a conclusion of the above elaborated thoughts on vibrating materiality and vibrant matter both the subwoofers as well as the sounds produced by them can be described as such. Implementing Egedy's voice in the discussion with the quote that is opening the chapter, the materiality in *B.A.S.* certainly creates energy that is felt in space. Egedy identifies matter as

energy, adding that we are in a “dialectical relationship with it” (Hingley, Charlotte 2024). This brings Barad’s notion of the intra-relatedness and agency of phenomena back and how there is an ongoing process in becoming. The installation of *B.A.S.* is clearly an apparatus, however the site-specific characteristics of where the installation is being played implements characteristics of an assemblage, as the space with its specifics is there as what it is and not changed by human agency according to the *B.A.S.* experience.

In the following chapter, bodily resonances in human and non-human bodies of *BODIES AND SUBWOOFERS (B.A.S.)* are analyzed referring to the first chapter in *Below 100 Hz: Toward a Musicology of Bass Culture*. The discourse analysis is expanded by a phenomenological analysis, referring to my embodied experience of *B.A.S.* at Sónar+D.

2.3 Resonances in Human and Non-human Bodies

It’s a sort of sound hug.

(Egedy in Sambo, Giovanni 2023)



Figure 3: *BODIES AND SUBWOOFERS (B.A.S.)* @Sónar+D Istanbul 2024. Photo by Stefanie Alf

When I first experienced *BODIES AND SUBWOOFERS (B.A.S.) 12.0 Triple Circles* at Sónar+D in April this year while Egedy was still working on the composition for this specific space, I felt how my jaw released, I sensed a shaking of my flesh up until my neck whilst I was in a standing position close to the subwoofers, and I observed how the floor was set into vibration. After long sections of powerful sound, there were a few pauses that felt like breathing pauses as I started to breath with the dramaturgy of the sound composition. I remember how I jot down a notion of ‘sound as a body’. I observed staff being in space, touching the floor and the subwoofers, being astonished of the sound that was created in space.

In the process of the composition Egedy was listening and sensing to resonances and reverberations that are generated “in interaction with the architecture of the room and their transparency, which can only be perceived in a tactile manner” (Egedy, Stefanie 2024b). Listening to bodily sensations and resonances in space as my above described first experience with *B.A.S.* characterizes Egedy’s compositional process. In conversation with the curatorial team, Egedy created two versions for the Skylounge Zorlu Center. The so-called *Full Activation* version was a powerful 12-minute-long composition with sub-bass frequencies between 30 and 35Hz. Sound started to bleed, which means that sounds could be heard in other rooms and spaces. This is what created the anxiety for the curators of possibly moving architectural bodies, and that lead Egedy to create the *Welcome 30Hz* track that uses frequencies between 30 and 47Hz. Throughout the festival, as *B.A.S.* was played several times a day, the curators became more confident and trustful into the *Full Activation* composition. This version is stronger and more powerful and was in total played more often. That’s why I will focus on this version in the following phenomenological analysis.⁸

As the photo at the beginning of this section shows (cf. Fig.3), *BODIES AND SUBWOOFERS (B.A.S.)* invites the audience to be close and in physical contact with the subwoofers. It is possible to lean against them or lie on them. Audience is inhabiting the space around the subwoofer island in the other two circles of the installation as well, Egedy invited the audience ‘to make the sub [their] home’. Schulze claims that speakers are “contemporary cultures’ gates to sonic experience” (Schulze 2018, 79). Concerning lower frequencies he

⁸ In the attached appendix of the thesis, there is a documentation of my notes regarding the phenomenological analysis, extended by a list of audience member’s quotes with their experience of *B.A.S.*

argues with Serres “our bodies were the union of ear and orchestra, transmission and reception” (Serres 2016, 141). This is what audience can experience in *B.A.S.*

During my field research at Sónar Istanbul, I collected some audience’s voices and documented how my body experienced *B.A.S.* In the following, I want to interrelate my documented data with some research in Fink’s essay *Below 100 Hz: Toward a Musicology of Bass Culture* referring to Goodman and Henriques as well. Next to an elaboration on resonances of *B.A.S.* on human bodies, I will implement how non-human bodies are set into vibration as well and how intra-relations and agencies can be explored in *B.A.S.* On this note, Barad will be referred to again, this time on how matter comes to matter which eventually will offer a transition to the second part of this master’s thesis, to Doris Uhlich’s work *TANK*.

Bass figures are exemplary because of all frequency bands within a sonic encounter, it most explicitly exceeds mere audition and activates the sonic conjunction with amodal perception: bass is not just heard but is felt. (Goodman 2009, 236)

Experiencing *BODIES AND SUBWOOFERS (B.A.S.)* and its resonances I can totally relate to Goodman’s proposition that bass is felt. It is a very physical sensation. Fink and the authors he is referring to elaborate their research on bass, Egedy’s work is even more specific, as she uses sub-bass frequencies only. The composition played at Sónar+D uses frequencies in the range from 30-35Hz. In the following I will present my sub-bass experience of *B.A.S.* from different listening perspectives.

Lying on the back on top of one of the subwoofers, the muscles of my jaw start to release. The neck and muscles around the spine, as well as my pelvis start to vibrate. I feel a soft shaking, later a strong vibration in the head. The body parts that are touching the subwoofer become especially present, however, I feel how the flesh around my bones in the whole body is being moved. The soles of my feet are stimulated, my face is vibrating, even my teeth and my tympanum feel activated. Listening feels like a sound massage as a full vibrating body experience. At the same time, I can sense a full release into the subwoofer. Depending on the compositional moment, some body parts are stimulated or released more than others. I feel an effect on the breath and pulse, a massage of the organs, and generally a mix of vibrating and shaking. In the end of the composition there is an acceleration which is a strong compositional choice of how to end the piece, it creates a climax in listening and in the

listening sensation. Compared to sub-bass experience in the club where my body is mostly sensing sub-bass in the chest and around the upper center of the body, *B.A.S.* can be experienced in different body parts. It goes that far that I feel a basshigh, and that generally I feel more relaxed, chill, released, grounded and calm. When *B.A.S.* is finished I need a moment to come back to reality, but it feels like I am ready for anything. My backspace is activated, and I feel a three-dimensional presence of myself which leaves me with the sensation of a *sound hug* as Egedy describes the experience in *BODIES AND SUBWOOFERS (B.A.S.)*.

Lying on the belly, my experience is quite similar, however I feel a bigger release in the joints than a vibration of the flesh.⁹ I am again sensing the full body in its three-dimensional shape. Closing my eyes I can relate to and sense the movement of objects and non-human bodies in space. Sometimes it feels like the subwoofers are almost jumping as they create a lot of power and energy.

As a third and last perspective, I want to add my observations sitting in front of the subwoofer leaning against the speaker, where the sound waves are leaving the sub.¹⁰ I can feel different waves of intensity. Shaking and vibrating sensations are travelling through my body. The floor, on where I am sitting, starts to shake and I sense resonances between the subwoofers, the floor, the space and my body. I can relate my experience again to the physicality of a massage, this time a massage for my muscles and bones. It feels like my body is set into movement, by an external force. My neck – as it is quite close to the speaker – feels affected, my hair is being moved which reminds me of a wind shower and the full front side of my body starts to relax.

Adding other voices to my perspective, I want to include a few quotes of different people who experienced *B.A.S.*'s version at Sónar+D Istanbul as well. Most of them enjoy *B.A.S.* as they refer to it as a “Whirlpool of air”, “It is wellness”, “My brain is free”, “Daily dose of therapy”, “Stimulating awakening feeling”. Only a few people have strong bodily reactions that do not feel as pleasurable, referring to “Feeling noxious”, “Skin is itchy”, or “So intense might get a heart attack”.¹¹

⁹ As this is a phenomenological analysis of my perspective, another person's experience might be different. Further, it is probably dependent on the daily differently bodily condition of how one listens to *B.A.S.*

¹⁰ Lying on the back, lying on the belly, and sitting in front of the subwoofer leaning against it, are the most common positions of how human bodies experience *B.A.S. Triple Circle 12.0* as I observed at Sónar+D.

¹¹ For more audience quotes, see the attached appendix.

Next to a bodily experience for humans in *B.A.S.*, it is outstanding how architectural bodies resonate and reverberate with Egedy's *BODIES AND SUBWOOFERS (B.A.S.)*. Zorlu Center Istanbul has a lot of glass in its architecture. But not only glass, basically all objects start to vibrate and produce sound as well. Depending on the frequency that is being played different objects reverberate differently. This means, that throughout the composition, on the one hand, one listens to the frequencies as a haptic experience. And additionally, resonances of sounds in non-human bodies can be heard and observed. Relating my body to the vibrations of non-human bodies in space I imagine how my body is set into vibration similarly. Witnessing non-human bodies vibrating and hearing them creating sounds, shows how *B.A.S.* can set human and architectural bodies into movement. The movement in these bodies happens more on an internal dimension as opposed to locomotive movement. This makes me think of Bergson's notion on spatiality (Bergson, Henri 1998, 202–3) and how this can be applied differently in different moments of *B.A.S.* Vibrating human bodies and the above described relaxing effects as of a massage indicate that movement is happening through sound. Sound creates vibrant matter in bodies that sets them into movement.

Listening to bass is, as Goodman puts it, a perception that is amodal (Goodman 2009, 236). And in the case of sub-bass in *B.A.S.* it is maybe even more, as non-human bodies are agents as well – it is a haptic and physical way of listening that includes movement stimulation in various bodies. Schulze notes that the environment is not a given space, where sound compositions are resonating and oscillating within, but rather sound events “are exactly this present environment in all its highly specific material aspects” (Schulze 2018, 80). This offers another perspective of how the apparatus can be looked at in space and might be related to Bennett's notions on the definition of assemblage.

Changing the perspective, now towards the relation of low frequencies and the human's physicality and their capacity of being able to hear them, Fink mentions that the lower frequencies are the more power and decibels are needed to create sound that is audible and sensible. The human ear evolved to hear sound best between 2-5kHz as this is the range of human voices. According to the graphic *Divisions of the Audible Spectrum* (Fink 2018, 93) the decibel scale in this hearing range is between 0 and 90dB. Going to the sub-bass register, that is around 30Hz and thereby the range of *B.A.S.* the sound pressure level needs to be at around 60dB already, so that humans can haptically listen to the sounds. In a way all humans are hearing impaired below 100Hz, but sound can be felt as power. Interestingly, sub-bass

does not go into the human's head, but around it which means there is no danger in hearing loss while listening to sub-bass frequencies (Fink 2018, 92–93). The “full-body experience” (Fink 2018, 94) Egedy is referring to as well emerges because “the audible becomes haptic and the intangible tangible” (Henriques 2011, 53). The listening of sub-bass is based on the sensorial skin, not on hearing with ears. To create sound that is not made to hear, but to listen haptically means it needs enormous intensity to arrive at a haptically and bodily sensation. “Safe behind the evolutionary specialization of our ears, we can contemplate the vibratory energies of the bass register in comfort”. (Fink 2018, 95)

Listening to Egedy's *BODIES AND SUBWOOFERS (B.A.S.)* creates for most of the audiences a pleasurable and sometimes even addictive experience. *B.A.S.* can be considered a practice with personal effects on the listener as well as an example of how a practice in the performative arts offers a perspective on a discourse. In this master's thesis project close readings in conversation with embodied knowledge and participatory research as methodology try to explore possible effects of Egedy's work in a philosophical context. Barad offers a thinking of *how matter comes to matter* which will be applied to *B.A.S.* as an attempt to locate the art practice in a philosophical thinking.

Barad mentions that “material conditions matter” (Barad 2003, 823), because materialities matter as they create the world in their intra-activity. Phenomena, intra-relations of human and non-human materialities with agencies, build material-discursive “conjoint” (Barad 2003, 823) practices. In the case of *BODIES AND SUBWOOFERS (B.A.S.)* matter comes to matter, as the materiality of subwoofers and sub-bass frequencies become vibrant matter, and this vibrant matter comes to matter because it matters for human and non-human bodies. Thus, Barad's “reconceptualization of materiality” (Barad 2003, 823) offers another perspective on the world and on discourses. Materiality is not an “objective referent” (Barad 2003, 823), but intra-related phenomena. This leads Barad to introduce performativity – as “the world's “iterative intra-activity” (Barad 2003, 823). This means that all bodies, human and non-human bodies have no boundaries, but are “material-discursive phenomena”. In *B.A.S.* Egedy creates material phenomena through causal intra-actions in a performative apparatus (Barad 2003, 823–24).

Egedy's subwoofers can be described as vibrant materiality, listening to them is not just a vibrant materialistic experience, but can be considered as “*sensory materialism*” (Schulze 2018, 82) as well.

Stefanie Egedy works with non-human bodies and sound, creating a vibrant and sensory experience for human and non-human bodies through a performative apparatus. In the following part, Doris Uhlich's work *TANK* is analyzed with similar criteria: how can the stage design be considered a performative apparatus? How does human materiality become vibrant matter moved by sound and create an experience for the audience while watching *TANK*? And finally, what resonances of vibrant sound and dance can be observed by experiencing *TANK*?

3. *TANK* by Doris Uhlich

3.1 The Stage Design as Apparatus



Figure 4: Doris-Uhlich_doris-uhlich_tank-3_c-katja-ilner_Pressefoto

In this picture, Doris Uhlich is shown in the tank in *TANK* built by the Berlin collective *Proper Space* (Angela Ribera, Konstanze Grotkopp, Juliette Collas). The tank which reminds of a test tube container is made of glass and positioned in the middle of the stage in a black box. In the moment the picture was taken Uhlich is touching the glass with her fingers of her right arm, she is between a squatting and plié position, her heels are in distance to the floor. She is bending a bit forward while tilting left, her long dark brown hair is covering her face. Her left arm is not visible. There is smoke rising from the bottom of the tube, creating cloudy shapes inside the container.

Uhlich is starting her performance inside the tank and up until almost the end she is staying there, leaving the object only in the end to continue outside and being joined by an elderly woman.

Before analyzing and contextualizing *TANK*'s stage design as performative apparatus, Agamben's examinations on apparatus referring to his essay *What is an Apparatus?* are being offered as another philosophical position on the terminology. *Apparatus* is used as the translation of the French *dispositif*, that is an important term in Foucault's thinking. Following Agamben who summarizes Foucault, an apparatus can be defined as a set and network "that includes virtually anything, linguistic and non linguistic, under the same heading: discourses, institutions, buildings, laws, police measures, philosophical propositions and so on" with a function and power relation whereby it appears "at the intersection of power relations and relations of knowledge" (Agamben 2020, 2–3). Next to apparatus in Foucault's sense, according to a dictionary, apparatus can be defined by the following meanings: apparatus as a term used in a legal sense, in a technological context or as a military operation. In the tradition of Foucault, these notions are implied, however they are not separated and include epistemological context. That means that apparatus includes a set "of practices and mechanisms" (Agamben 2020, 7–8).

Adding the adjective performative to apparatus in the context of Egedy's and Uhlich's work and therefore trying to clarify and characterize these apparatuses, performative as a terminological concept will be exemplified in the following referring to Erika Fischer-Lichte. She discusses "Performativität" in the *Metzler Lexikon Theatertheorie*, talking about its linguistic origins referring to philosophers like J. L. Austin and Judith Butler. Austin originally introduced the term in the context of "Sprechakte," (Fischer-Lichte, Kolesch, and Warstat 2014, 253) referring to utterances that do not merely convey information but also perform an action. Butler further expanded this concept to include the performative nature of identity, arguing that identities are not fixed but are continuously constructed through repeated actions and behaviors (Fischer-Lichte, Kolesch, and Warstat 2014, 251–55). Fischer-Lichte situates performativity in theater by distinguishing it from text-based theatre and representation. While traditional theater is based on mimesis, or the representation of a pre-existing reality, performative theater emphasizes the act of performance itself as an event that creates meaning in the moment. In performative theater, the focus shifts from conveying a narrative to the process of enacting it, thus blurring the lines between performer and spectator, fiction and reality. In performative works meaning is not fixed but emerges through the interaction between performers, audience, and context. Fischer-Lichte also touches on the implications of performativity for the role of the audience. In performative art, the audience is

not merely a passive observer but might be an active participant co-creating the experience (Fischer-Lichte, Kolesch, and Warstat 2014, 255–58).

Relating Fischer-Lichte's definitions on performativity to apparatus with Agamben's and Foucault's ideas, and earlier exemplified notions by Barad, a performative apparatus can be considered a mechanism and practice that creates meaning with an audience in the moment of the performance. As this section is dedicated to Uhlich's work, in the following the stage design of *TANK* as performative apparatus is exemplified, whereby it will be referred to Egedy's work throughout the exploration as it offers an artistic reference in the discussion.

As mentioned at the beginning of the chapter, the stage design consists of the big glass tank. Another element is the smoke inside this tube, that throughout the performance takes on different shapes, and the lighting design which creates specific atmospheres in space. As Boris Kopeinig's sounds are part of the concept and choreography as well, the sounds throughout the performance can also be considered part of the apparatus. Of course, this raises the question how and why the stage-design with the individual elements of the performance such as sound and light is an apparatus in this case and why this is specific and not in general a characteristic of contemporary performative art works that include objects. It brings back the notion of practice that seems like a thread in the thinker's practices of defining apparatus. As Uhlich has a long practice in creating work together with Kopeinig, her body and the music are elements of the apparatus. The tank is an element where Uhlich creates her practice inside, and it is not a practice that stands still, but it is in intra-action with the object and the discourse about body transformations. The apparatus is both a set and a network, where relations of knowledge are becoming studied. It is performative as an audience is attending and witnessing Uhlich's and Kopeinig's intra-actions within the apparatus.

Naming different elements of the apparatus from the perspective of various elements of a choreography, the perspective should be shifted again, coming back to Barad's proposition of agential realism and defining apparatuses as materialities that intra-relate. The performative apparatus of *TANK* can be considered a frame for "*causal relationship between specific exclusionary practices embodied as specific material configurations of the world and specific material phenomena*" (Barad 2003, 814). Sound and movement become materialities questioning practices about knowing and becoming in the specific context of the topic in *TANK*, where "the body can be shown as a field of experimentation and as an object of modification" (Uhlich, Doris 2024b).

Without adding any interpretation to the descriptive text about *TANK* that comes as an accompanying text to the performance, Uhlich already refers to topics about modification and materialities that are becoming. Looking at the apparatus in *TANK* compared to the one in *BODIES AND SUBWOOFERS (B.A.S.)* Barad's notion of "Apparatuses have no inherent 'outside' boundary" (Barad 2003, 816) can be discussed. In Egedy's work there is a non-linguistic performative apparatus that intra-acts with other non-linguistic apparatuses that might intra-act with linguistic and non-linguistic discursive apparatuses – for example in this moment now when her work is analyzed. Uhlich's performative apparatus can be, however, considered a performative apparatus that intra-acts with other discursive apparatuses that are not as in Egedy's case space related to where the performative work is shown and experienced, but Uhlich's performative apparatus opens relationalities to other discursive practices. This little comparison emphasizes Foucault's notion of how an apparatus "includes virtually anything" (Agamben 2020, 2) "the said as much as the unsaid" (Foucault and Gordon 1980, 194). Even if it seems like Uhlich is the main materiality in the performative apparatus, as she is the performer and in the center of the stage, she is "neither pure cause nor pure effect but part of the world in its open-ended becoming" (Barad 2003, 821). On a posthumanist account the human is not centered in the world but a part of the world. Indeed, humans are always part of the world that they seek to understand, and it cannot be zoomed out from their perspective (Barad 2003, 828).

Referring to the title of this section *stage design as performative apparatus* – the term stage design is being used in an expanded sense, not only as elements on stage, but materialities of the performative apparatus are considered as such. Egedy's performative apparatus of *BODIES AND SUBWOOFERS (B.A.S.)* consists of the following materialities that can be named subwoofers, space dimensions, sub-bass frequencies, Stefanie Egedy as the composer and the audience. The materialities in Doris Uhlich's *TANK* are the tank with various smoke materialities, Doris Uhlich as a performer with different body materials – what is elaborated in the next chapter – electronic sounds produced by the composer Boris Kopeinig, a light design and the audience. Both these performative apparatuses are intra-relating with various apparatuses, the process of intra-relation is undetermined in its practice and becoming.

In the following chapter, a movement analysis in relation to sound and stage design is exemplified. It will be specifically looked at vibrant matter in human flesh and in relation to electronic sound.

3.2 Human Flesh as Vibrant Matter Moved by Sound

Uhlich allows her *flesh* to shudder, shake, and vibrate in released tonicity. [...] Uhlich seeks to energetically transgress the boundaries of a body-in-motion. (Huschka 2019, 11–12)¹²

Vibrating bodies or vibration as a choreographic language is historically not a new concept or idea, in works by choreographers such as Nijinsky, Mary Wigman or Meg Stuart trembling can be experienced. Though, vibration can appear in many variations and transport different meanings, “[it] does not even carry the same meaning in a single epoch” (Ruprecht 2015, 34–35). Uhlich’s trembling body is therefore not an invention of her, working with vibration as a choreographic expression has a history, and still her embodiment is very specific and conveys a certain context or meaning. The experience of watching *TANK* or doing workshops with her, embodying her practice of vibrating, is also very different to the bodily sensation in Egedy’s *BODIES AND SUBWOOFERS (B.A.S.)* although they are both contemporary artists from the same epoch.

To start with – before offering a detailed analysis of selected sections in *TANK* – a theoretical exploration around human flesh as vibrant matter is exemplified. Coming back to Bennett’s *Vibrant Matter: A Political Ecology of Things* she proposes a perspective on thing-power called *Walking, Talking Minerals* referring to humans in a sub-chapter of chapter 1 in her text. She claims that “human power is in itself a kind of thing-power” (Bennett 2010, 10). She explains that human bodies are constituted of various materialities such as mineralities that create our bones, blood or electricity of our nervous system. By continuing thinking along this notion, it is important to acknowledge these materials as “lively and self-organizing”

¹² Sabine Huschka is a dance researcher who wrote about Uhlich’s work. In her article *Aesthetic Strategies of Trance-Gression: The Politics of Bodily Scenes of Ecstasy* (2019) she engages with Uhlich’s trilogy about techno bodies. Some of her propositions can be applied to *TANK*.

(Bennett 2010, 10). It means that by their vibrancy humans happened to evolve opposed to a concept of a soul or mind that directed dull matter to be organized in a specific way (Bennett 2010, 10). Along Bennett and Barad other philosophers research around these questions, for example Rosi Braidotti describes this self-organizing capacity of materialities with the term “auto-poesis” (Braidotti 2013, 3). Contextualizing this idea from an evolutionary standpoint, deLanda gives an explanation how through mineralization bone emerged as a material a long time ago (De Landa 2014, 26). Thus, mineralization was the “creative agency” (Bennett 2010, 11) that made animals move differently because having bones offered different possibilities in movement. As humans are breathing oxygen and need other minerals surrounded by them to survive, following the research by geologist and mineralogist Vernadsky, Margulis and Sagan call humans “walking, talking minerals” (Margulis and Sagan 2000, 49). Barad also takes a strong position, mentioning that human bodies

do not preexist as such; nor are they mere end products. ‘Humans’ are neither pure cause nor pure effect but part of the world in its open-ended becoming. (Barad 2003, 821)

Drawing a conclusion from these positions, human power is thing-power as humans are composed of vital materials. This includes the discourse on hierarchy and the anthropocentric view as it questions or even contradicts the concept of centering the human in the world. Referring to Lyotard, Bennett continues her elaboration, mentioning that in humans the material set is especially “rich” and “complex” (Bennett 2010, 11) and that through language this set gets even more complex. Further, Bennett argues for not continuing to divide humans and things ontologically based on supposedly moral reasons. She is claiming for a practice where things are not seen in a “intrinsicly *hierarchical* order” (Bennett 2010, 12). By Bennetts undertaking of how human power is thing-power, it becomes clear how through approving that humans consist of the same vibrant matters as other things or materialities it can be argued against a life-matter hierarchy. Furthermore, Bennett contextualizes her notions in a broader sense of how “all bodies are kin” and that they are relating “in a dense network” (Bennett 2010, 13).

How can this theoretical approach be related to Uhlich’s work *TANK*? The above examined thoughts explain how materialities of human bodies consist of vibrant matter. This means that from a posthuman account the material differences of Uhlich’s body, the audience’s bodies and the various bodies of the performative apparatus are minimized. But

how does vibrant matter expropriate itself as soon as the performative apparatus comes to life? How can vibrant matter in human flesh be seen and experienced when bodies of the performative apparatus start moving? In which way is sound part of the network when phenomena start to intra-relate? Is there spatiality – referring to Bergson – in movement and materiality when contextualizing vibrant matter or, as the choreographer, dancer and researcher Rasmus Ölme proposes a certain take on *suspension* as movement material (Ölme 2017, 105)? To get closer to an understanding of human flesh as vibrant matter moved by sound, some sections of *TANK* are analyzed in the following.¹³

The performance starts with the performer Uhlich in the tank. The tank is illuminated, though the performer cannot be seen yet, as the object is filled with smoke. Drone sounds slightly oscillating between different pitches are being played. Uhlich moves different body parts closer to the audience, touching the inside of the glass container, thus individual body parts such as her hands, feet, knee or hair are becoming visible. Slowly the audience can grasp her naked human body shape inside this object. From around minute six, it is possible to witness how smoke is leaving the object in small clouds of smoke. Uhlich's movement quality in the first seven minutes of the performance is soft without any accents or vibrational elements. Then, she is moving her head rhythmically down and up, letting her hair move through space. As her hair is quite dark, it is contrasted in the grey-white smoke and can be seen very well. She moves rhythmically to the music, that is still atmospheric, and positions one hand and one foot on each inside side of the tank, letting her head hang in between, with her hair falling. With the specific light and stage design, the audience can only see Uhlich's hair, foot and hand. She holds this position for a moment and continues moving slowly through different positions, guiding the audience into her study and "experimentation on body transformations" (Uhlich, Doris 2024b). At around ten minutes into the piece, the first rhythmical pattern in the sound composition is introduced and slowly after, Doris Uhlich lets her flesh and body tremble to these sounds.

With this descriptive introduction of the first ten minutes of *TANK* a sensation of how Uhlich and Kopeinig bring the performative apparatus to life should be given. As a few selected sections that seem most relevant for the research questions of this master's thesis will be analyzed in detail, first a short dramaturgical overview is offered to situate the selected

¹³ It will be referred to a video recording of the premiere of *TANK* at tanzhaus nrw on March 14, 2019 (Uhlich, Doris 2019).

parts in the context of the performance: Ulich explores her body as material inside the tank, exploring her movements and movement possibilities inside this specific object. For example, she is leaning against the glass, pressing her skin and flesh against the transparent surface which creates a transformation of perceiving skin as the shell of the human body. In another moment, her body is moving in relation to the tank by letting gravity take over, falling and circling around the glass. A voice is added in the audio, later in the third third of the piece, Ulich's voice is added to the composition, and towards the last section Ulich is using her voice live for some chanting. Eventually, she is leaving the tank, entering it later again, while an older woman is entering the stage smoking.

Ulich's movement material consists of different forms of trembling, shaking, vibrating, sometimes in individual body parts, sometimes travelling through the flesh. It is composed in various relations with Kopeinig's sounds, sometimes going against a rhythmical proposition, sometimes going with it. I decided to analyze two sections which I consider idiosyncratic for Ulich's choreographic language and most interesting in the research on vibrant matter in relation to bodies, sound and movement.

First, I want to analyze what happens between minute 20:30 and 23:50. Ulich's back is facing the audience, she is in a standing position, with her arms reaching up with stretched fingers. The sound is a rhythmical techno composition. Ulich starts drawing circles with her arms, led by her fingertips, parallel to the top of the tank. The circles do not follow a continuous pulse, but their speed is differing. She starts to circle around her axis and the movement of her arms affect the movement of her flesh in the whole body. Facing the audience her right arm continuous with smaller circles while her left arm pauses for a moment staying in the same position. She varies with the rhythmicality, sometimes going double time, sometimes suspending a circle, sometimes going in a continuous speed. The circular movement of her arms and the turning around her axis make her flesh shaking. After one turn, arriving again at the back of the tank, she changes her movement pattern. Ulich adds bouncing movements in her hands, that are increasing into her arms and chest, replacing the earlier created circles. She keeps turning, adding some movement of up and down in her legs as well. Facing the right back diagonal Ulich creates a moment of suspension as the sounds continue. She is touching the ceiling of the tank with the palm of her right hand, standing on her tippy toes. Then, she continues with these bouncy movements that more and more lead

her into shaking. She pauses again, facing the audience en face, in a parallel standing position, feet and legs are close together.

Before continuing with what happens next, proposing a thought with Ölme seems relevant. In his research about movement material from a materialistic point of view, he suggests looking at movement “as an expression in itself” (Ölme 2017, 101) opposed to imposing a certain topic or meaning in every movement. He develops this thinking into questions about what moves the performer versus movement as an only intrinsic decision. This brings him to the term *suspension*, shifting the perspective of understanding movement as the default mode opposed to stillness as a status quo. In the moment of releasing suspension, movement is happening (Ölme 2017, 100–107). In the above described movements in *TANK* there are some suspension moments. Ulich lets movement happen and not just in a specific body part, but her full body is reacting, and the movement is travelling through her body, setting the flesh into vibration and shaking. The material of the body as well as the movement material itself are becoming vibrant materiality.

When Ulich arrives in the standing position facing the audience, she starts moving her belly flesh with her hand. At the same time, there is a new sample added in the techno soundtrack: higher pitches that remind of the sounds of melodies played by pan flutes. Ulich again finds various variations on the motif of moving her flesh by herself. She starts going with her right stretched fingertips into the flesh on the right side of her belly button, creating vibrations with her right arm which sets her belly into vibration. This develops into a grabbing with all five fingertips, setting the flesh into vibration again. Ulich varies with the rhythm. Then she adds her second hand creating different shapes with her belly flesh and releasing the hands, so there is a moment the audience can witness how the material moves back to its original state as it looks like from the outside perspective. In minute 23:08 she changes the concept, touching the inside of the glass tank with her right hand again, this time in the same shape as she touched her belly flesh earlier. With accentuated movements the second hand touches the glass tank, the head moves to her left and she opens her feet. Now she creates a shaking, vibrating sensation in her legs, travelling through the whole body. Accentuated movements of changing directions of the head can be witnessed, while her hands are touching the tank and movements in her legs make her turn again in the same direction as before. She is again on her tippy toes, and the body shapes she is creating remind of a non-human animal-

like creature. The shaking movement becomes more complex as Uhlich is adding side-to-side movements in her legs.

Uhlich's flesh is becoming vibrant matter. As Huschka notes, Uhlich's tonicity is released, and she tries to challenge the boundaries of her moving body. If there is matter that is moving vibrantly, "is there movement in matter" generally (Ölme 2017, 100) or to what extent? With the until now exemplified explorations and attempts to intra-related phenomena in the performative apparatus, I would claim following the posthumanist approach of vibrancy in materiality that postulates agency in all bodies in its intra-acting becoming. Matter comes to matter through the intra-relations of apparatuses (Barad 2003, 826–27). Following the understanding of my embodied knowledge and close readings I would define movement in matter, however not continuously and sometimes so small that it is not visible from the outside.

To deepen the understanding of Uhlich's work, the focus for analysis is now shifted to the passage between minute 42:33 and 44:20, again centering the examination on movement and implementing other materialities of the performative apparatus. The sound in this section is added by a layer of spoken word, Uhlich's recorded voice. She speaks 'recombine my DNA/ the body isn't here to stay' while she is kneeling, her back facing the audience, her head not visible, just a bit of her hair. While the audience is listening to Uhlich's words, the tank is being filled with smoke again and some beats are added in the soundtrack. With a sudden movement she turns around taking a squat-frog like position, with her face still invisible to the audience. She jumps in this position, readjusting her position, now facing the audience directly again. Her recorded voice continues to be present, now it is vibrating as well, embodying the words 'brave/ brave new body/ brave new body'. This text reminds of Aldous Huxley's *Brave New World* and fits perfectly to Uhlich's and Kopeinig's concept about the body in the *TANK* in a field of experimentation. During the first vibrating words of 'brave new' Uhlich is shaking her head as if she wants to shake something off. Then, she jumps – again circling around her axis – in this squat-frog like position, creating a stamping sound in the moment of landing. When she is landing the audience can see how the flesh is vibrating and shaking as a reaction of the impact of the movement. This might be a visual example of the "tendency towards spatialization" (Bennett 2010, 77) as one can see how human flesh is moving and thereby moving its space around it. From my experience of watching *TANK* live I cannot remember that Uhlich's voice was vibrating as well, I only

remember an effect at the end of the piece when she is speaking live that reminds me of vibration. However, it is enriching the research to also be aware that the voice is part of the body, created and formed by materialities. The voice can also be considered vibrant matter in its most literal sense. Furthermore, working with the materiality of voice and spoken word, the linguistic layer is added. Therefore, an apparatus of linguistic understanding and probably certain epistemological codes is becoming part of the performative apparatus. With for example her text 'recombine my DNA/ the body isn't here to stay', she clearly refers to the topic of bodily transformation through language.

After Uhlich's squat-frog like jumps, she is coming into a standing position again, moving her body very energetically to the repeated question 'is my body out of change'. She is mixing circular movements in her arms, with bouncing, again circling around until the movement finally leads into a head banging that again shows the vibrancy of the flesh in her body. With some shaking she comes down to the floor of the tank, turning upside down, her feet up to the ceiling and leaning against the inside wall of the tank with her back while her right leg keeps trembling. The sound stops, she keeps trembling until she collapses down. Uhlich creates a body in motion that manifests in change opposed to arriving in fixed positions. Suspension moments create tension, as if the movement holds still for a moment, but only to be picked up later and being changed again.

Describing and analyzing the two sections of Uhlich's *TANK* it becomes clear that the relation of bodies, sound and movement is different to Egedy's *BODIES AND SUBWOOFERS (B.A.S.)*. In *B.A.S.* the audience experiences vibrations inside their bodies whereas in *TANK* vibrations can be witnessed visually in the performer's body. Kopeinig's sound composition reminds of electronic dance music or as Uhlich refers to a saying by Kraftwerk who termed this kind of music "electronic body music" (Uhlich, Doris 2024a). In the performative apparatus of *TANK* vibration can mostly be witnessed in Uhlich's body, in various variations of trembling, shaking, quivering, shuddering, wobbling or rocking. In the following chapter, I want to look at the reception of *TANK* referring to my experience of watching it live.

3.3 Reception of Vibrant Sound and Dance

Movement has the potential to be seismic. It can spread and its energy can be infectious. *I body you, you body me.*
(Uhlich, Doris 2024a)

When I watched *TANK* in Sophiensaele Berlin in October 2021, I went there with a group of fellow scholarship holders of Studienstiftung des deutschen Volkes. It was our semester meeting with Prof. Dr. Christian Freigang to catch up by doing an activity together. Directly after watching the performance, we discussed what we experienced.

As the performance happened in Hochzeitssaal Sophiensaele, a quite small stage compared with a State Theatre space, and still a very renowned place for contemporary dance, the audience is quite close to the stage. For *TANK* the closeness of audience and performer is important to witness the details. Uhlich states in her artistic statement that movement can be seismic. Like the sound that is heard and sensed equally in the audience's and performer's space, she proposes that dance has the potential to spread in space as well. With the movement material and its materiality Uhlich is offering an intra-relation with the performative apparatus. I could sense how my body relates to her moving body. As Brandstetter writes in the introduction of *Schwarm(E)Motion. Bewegung zwischen Affekt und Masse*, movement has the potential of transference, or maybe the German word *Übertragung* might be more adequate. (Brandstetter, Gabriele et al. 2007, 12). She exemplifies how movement affects – both as motion and emotion. In the context of this master's thesis, the physical transmission of being moved is subject of the research as I did not feel emotionally affected by the experience of vibrant matter in the performative apparatus.

Compared to Egedy, where the audience is being directly moved and haptically affected by the body of sound and the closeness to the sub-woofers, sounds are experienced differently in Uhlich's work. The frequencies in Kopeinig's composition have a much broader range, and the audience is listening differently to the sounds, not merely haptically. However, the rhythmical structures of his composition create a certain bodily affect in perceiving the sounds. Reading Uhlich's statement "*I body you, you body me*" (Uhlich, Doris 2024a) first gives the impression that it might be meant in the sense of human dancing bodies that affect each other. But maybe it can also be read differently by referring to non-human bodies as

well, and maybe even the sounds could be considered a non-human body? It is the interplay of Uhlich's movements, Kopeinig's sounds and the stage design – the performative apparatus – that creates a unique experience in the reception and experience of the work.

All bodies, not merely 'human' bodies, come to matter through the world's iterative intra-activity – its performativity. This is true not only of the surface or contours of the body but also of the body in the fulness of its physicality, including the very 'atoms' of its beings. Bodies are not objects with inherent boundaries and properties; they are material-discursive phenomena. (Barad 2003, 823)

What Barad writes in this paragraph can be read as a summary of how bodies, their physicality, non-boundary characteristics and performativity are linked together. Uhlich and Kopeinig exemplify through the physicality of movements and sounds how bodies do not have inherent boundaries but the capacity to spread spatially.

Coming back to my personal experience of *TANK* in Sophiensaele with this group of people, I can remember how we started to talk about performativity, a naked female body on stage and her movements. Our discussion took the experience of watching *TANK* as a starting point and entered various discourses. This shows how the performative apparatus in *TANK* is intra-related with other apparatuses, *dispositifs* to name them with Foucault's terminology.

Next to considering the human flesh as vibrant matter, the skin can also be considered vibrant matter. Supposedly, the skin is some sort of shell functioning as boundary of inside and outside of beings. However, quoting Uhlich in her artistic statement she notes:

To me, the skin is a permeable structure, and therefore inside and outside of the body are designations of place that need to be questioned. (Uhlich, Doris 2024a)

In *TANK* the skin can be experienced in various states during the duration of the piece. As Uhlich is performing naked, the skin of her entire body can be seen. The audience becomes witness of how trembling flesh makes the skin move and how the skin reacts by producing sweat to cool down the body. Observing Uhlich's hair which gets wet because of the physical effort is another indication of the skin's reaction and its non-boundary characteristics. The appearance of sweat is the most obvious characteristics defining the skin's permeable structure. Looking at *BODIES AND SUBWOOFERS (B.A.S.)* the skin is the surface that is in

touch with the vibrating loudspeakers. The skin is the first layer that is being affected and moved, and at the same time it is the in between of human flesh and vibrant subwoofer. Probably the vibrating flesh can be felt because of the sensory cells in the skin. Comparing Egedy's and Uhlich's works vibrancy and permeability of skin can be experienced in the opposite direction. On this note, on examining skin as a part of the body that matters, Sarah Ahmed's and Jackie Stacey's publication *Thinking Through The Skin* (2003) gets relevant. They claim for shifting body politics to "skin-tight politics" by not referring to "the body as such, but the fleshy interface between bodies and worlds" (Ahmed and Stacey 2003, 1). Skin is where we touch and are being touched, the moment of being touched "brings us immediately into the present" (Ahmed and Stacey 2003, 52). In *B.A.S.* our skin is being touched by the power of sub-bass frequencies; in *TANK* the touch might also happen emotionally as Uhlich questions a common image of the body. Following the trajectory of elaborating on various notions of touch, touching and being touched are complex processes, both haptically, and affective, whilst "the relationship between the one touching and the one being touched is almost never clearly defined" (Brandstetter, Egert, and Zubarik 2013, 3). When it comes to *B.A.S.* the haptically touch happens between human and non-human bodies and sound. It seems as if the sub-bass frequencies are, on the one hand, in between the touch of human body and subwoofer, and, on the other hand, they make the touch exceptional as they are what touches.

4. Conclusion

Dancing is a way of hearing; singing is a way of dancing: singing is a way of hearing.
Sonic corporeality, adequately transforming.
(Schulze 2018, 58)

This beautiful quote from Schulze's *The Sonic Persona: An Anthropology of Sound* gives another perspective on the relation of moving, listening and voicing. It shows how these different mediums can be related to each other. Schulze notes that a process of transformation is part of their relationalities which reminds of Barad's notion on intra-relationality. By following Schulze's proposition of the term *sonic corporality*, sound can also be understood as a body. By looking at several characteristics of Sound, Bodies and Movement – as exemplified in the analyses of Egedy's and Uhlich's work – they are much closer interwoven than the separation and a common understanding of these words suggests.

Concerning the term *apparatus*, I want to summarize that on the one hand, and in a more general understanding that does not refer to a specific context, it can be used to describe any technical set-up of a mechanism (Agamben 2020, 7). On the other hand, apparatus is a common English translation of Foucault's *dispositif* (Agamben 2020, 1). When it comes to Egedy's and Uhlich's works I am referring to both meanings. First, the different elements of the performances and the decision for the specific set-up that is made by Egedy and Uhlich & Kopeinig can be considered as apparatus in a technical sense. They choose certain elements such as space, sound, objects, bodies that become part of the performative apparatus. Incorporating non-human bodies and listening to their vibrancy while developing the compositions and choreography site-specifically, there is a posthuman approach in Egedy's and Uhlich's works. As their apparatuses are created for audiences to be experienced by sensing, watching and listening, these apparatuses are performative apparatuses. They are situated in the context of contemporary performative arts. And as these apparatuses are more than a technical mechanism, apparatus in Foucault's sense is as adequate to describe them as well. Again, both works are also part of networks of discourses. Both apparatuses create some sort of power relation towards the audience and at the same time they question relations of power and knowledge (Agamben 2020, 3).

As analyzed in Egedy's and Uhlich's work *Vibrant Matter* can be experienced and referred to in various forms. In Egedy's *BODIES AND SUBWOOFERS (B.A.S.)* the subwoofers can be considered vibrant matter, as well as the human and non-human bodies in space that resonate and reverberate through the power of the sub-bass frequencies. As human bodies we listen to the sound with our bodies by receiving the vibrant matter energy. The sound becomes sonic material, that sets us – as well as non-human bodies – into vibration. In Uhlich's *TANK* vibrant matter is experienced differently. Opposed to *B.A.S.* where we sense vibrations in the body, Uhlich offers a visual experience for the audience as we see her body and flesh becoming vibrating materiality. By her different approaches of creating vibration by shaking, trembling, quivering, wavering, wagging, rocking she is setting her body into vibration and the audience becomes witness of her explorations inside the tank. Kopeinig's sounds are not as much haptically sensed as Egedy's sub-bass composition, however, they are intra-related with Uhlich's movements and the apparatus and therefore become an important part in the experience of watching *TANK*.

Intra-relations of phenomena is another finding of the research in this master's thesis project that appeared by analyzing these art works in the context of vibrant matter and posthuman performativity. It is crucial to me to consider discourses, apparatuses and practices as boundaryless and to take an account of agential realism into consideration as another perspective to look at the world's becoming. Applying this concept to Egedy's and Uhlich's work opens the possibility of exploring its potential within the context of performative arts.

In how the thoughts of the philosophers and the contextualization of the works of the artists are coming together and are being discussed in this thesis, in its core it is always coming back to questions of reality constitution. As Egedy notes in one of the published videos about her work, she is interested in how sub-bass can offer another reality (Egedy, Stefanie 2021). With Foucault and the apparatus, it is being looked at how discourses and networks are creating relations of knowledge (Agamben 2020, 3). Uhlich as well refers to topics around reality constitution in her artistic statement:

For me, choreography means embodying my interest in people, to be precise: in people and the orders and systems which they construct, operate, to which they are exposed, and that become inscribed in them. (Uhlich, Doris 2024a)

By engaging with Bennett's work, I could even sense how my relation to things is changing by letting some of her thoughts enter my daily life. Barad offers the term "*onto-epistem-*

ology” (Barad 2003, 829) in the conclusion of her article *Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter*. I am curious how a notion of onto-epistem-ology can be applied to Egedy’s and Uhlich’s work and would claim for the potential to observe an onto-epistem-ological experience in both works. Both artists offer an experience of sensing and getting in contact with their performative apparatuses by experiencing vibrant matter. As their approaches are practices and the humans are always part of the apparatus – they are inside and can never leave their position in the world to an exterior point of view – I would consider Egedy’s and Uhlich’s works as “practices of knowing in being” (Barad 2003, 829).

Coming back to the anecdote of the beginning of the thesis it is becoming clear how bodies, sound and movement are intra-related. There is no boundary in the agency of entities, affecting and being affected by each other is an ongoing intra-relation of phenomena. Egedy’s work offers a perspective to look at the world’s becoming by an artistic practice. Uhlich’s work offers a practice of studying body transformations and working with the body’s incorporation of “one’s own biography and the biography of the world“ (Uhlich, Doris 2024a).

To conclude and complement the findings of the thesis I would like to first look back with a little section about personal reflections on the research process and then offer a look ahead by presenting further research avenues and shortly mapping how Egedy’s and Uhlich’s works develop further.

With my situated knowledges that are rooted in practices of dance, choreography and music my research process was led by my personal experiences that I observed by diving into Egedy’s and Uhlich’s works and practices. My research about their works consists not only of watching a performance and pursuing a classical analysis of the performative artwork but includes an embodied approach as well. Supporting Egedy throughout the process of set-up and composition of *BODIES AND SUBWOOFERS (B.A.S.)* at Sónar+D Festival, I got a deeper understanding of how this work comes to life. By first experiencing *B.A.S.* with and through the body and creating a bodily sensation and knowledge, I then started to read different theories trying to find topics and ideas that are resonating with each other. Both Bennett’s and Barad’s ideas are more complex and detailed than I could exemplify here, however, I hope that by discussing them with Egedy and Uhlich other knowledge could be

created. Being a dancer and attending Uhlich's workshop some years ago informs watching and experiencing Uhlich's *TANK*. Referring to the video recording makes it possible to look at details in the choreography. It brings back memories of watching the show and how vibrations have been embodied. However, implementing a video recording in an analysis always implies the editor's gaze decision on the frame. That means that the analyzer's eyes are already guided in a certain way.

Coming from my personal experiences and relating them to theory I decided to follow a feminist-posthuman approach. It was an enriching process for me to acknowledge how and to whom Bennett and Barad are referring to in their notions. Mixing discourse analysis with phenomenological analysis as methodology shows how form and content are linked in this master's thesis about vibrant matter in the performative apparatus.

Deepening the research on vibrant matter and the relations between human and non-human agency Mette Ingvarsen's artistic PHD project on *Expanded Choreography: Shifting the agency of movement in The Artificial Nature Project and 69 positions* could offer other perspectives on these topics. Looking into theory at the intersection of sound and dance studies, Salome Voegelin's works could be interesting for further research avenues. Especially her book *Sonic Possible Worlds* (2021) dives into a materialist understanding of sound by referring to Merleau Ponty amongst others. Pauline Oliveros is another practitioner and researcher that intersects between dance and music and works a lot around listening. I consider looking at her work enriching, both from an experience of embodiment and theoretical grounding. Uhlich introduces the voice in *TANK*, if the focus is shifted to this medium, Zeynep Bulut's research should be reviewed. Schulze's *The Sonic Persona: An Anthropology of Sound* still has more ideas and thoughts to be applied to Egedy's and Uhlich's work and to further research on vibrant matter. As the focus was on Bennett's and Barad's texts, Schulze's work was not cited as much but could be the focus as well.

Concerning Egedy's and Uhlich's works my curiosity for the future of listening to music and the future of the body in dance and performance art is aroused. Through the rapid changes in technology and different directions in listening to music and being surrounded by various soundscapes I am wondering where new forms of listening will take us. Uhlich proposes a body image and virtuosity that is different to traditional works in the context of dance, describing the body of her work the philosophy of flesh. Also, by working with non-professionals and performers with differently abled bodies Uhlich offers another perspective

on creating work in the field of dance, of course amongst others, and being one of the pioneers.

Looking at the development of Egedy's *BODIES AND SUBWOOFERS (B.A.S.)* Egedy delves into an artistic research of creating *B.A.S.* compositions with "therapeutic possibilities" (Hingley, Charlotte 2024). Experiencing her work in different body parts and with the phenomenological analysis carried out in chapter 2 of this thesis a theoretical focus on *B.A.S.* and therapeutic effects could be a further research avenue building on the findings of the philosophical contextualization around vibrant matter and the performative apparatus in this project. Doris Uhlich continues creating *Habitat* in different places around Europe, working site-specifically with newly created ensembles. The next edition will be at Staatstheater Wiesbaden at the end of September 2024. Participating in *Habitat* or conducting participatory observation in one of her workshops could support the research process of understanding her work and the collaboration with DJ Boris Kopeinig by generating embodied knowledge. Apart from that Uhlich is developing her artistic work as a choreographer and performer, for example by creating for the ensemble Kammerspiele München in *In Ordnung*.

Stefanie Egedy's *BODIES AND SUBWOOFERS (B.A.S.)* and Doris Uhlich's *TANK* are both works that matter. They offer an aesthetic experience and sensation of vibrant matter in the performative apparatus. At the same time, looking at these works through this lens is only one of many perspectives. Apparatuses are intra-relating with other practices and discourses, there is always more directions further research can lead to. The research methodology applied here, mixing close reading with a phenomenological analysis and embodied knowledge seems relevant, especially in the field of critical dance studies.

Bibliography

- Agamben, Giorgio. 2020. "What Is an Apparatus?" In *"What Is an Apparatus?" And Other Essays*, 1–24. Stanford University Press. <https://doi.org/10.1515/9781503600041-002>.
- Ahmed, Sara, and Jackie Stacey. 2003. *Thinking Through the Skin*. 1st ed. Abingdon, Oxon: Taylor and Francis.
- Barad, Karen. 2003. "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Signs: Journal of Women in Culture and Society* 28 (3): 801–31. <https://doi.org/10.1086/345321>.
- Bennett, Jane. 2010. *Vibrant Matter: A Political Ecology of Things*. Duke University Press. <https://doi.org/10.1215/9780822391623>.
- Bergson, Henri. 1998. *Creative Evolution*. Trans. Arthur Mitchell. New York: Dover.
- Braidotti, Rosi. 2013. *The Posthuman*. Cambridge, UK; Malden, MA, USA: Polity Press.
- Brandstetter, Gabriele, Brandl-Risi, Bettina, van Eikels, Kai, and Zellmann, Ulrike, eds. 2007. „Übertragungen. Eine Einleitung". In *Schwarm(E)Motion. Bewegung Zwischen Affekt Und Masse*, 7–54. Freiburg j. B.: Rombach.
- Brandstetter, Gabriele, Gerko Egert, and Sabine Zubarik. 2013. *Touching and Being Touched: Kinesthesia and Empathy in Dance and Movement*. Berlin Boston, [Mass.]: De Gruyter.
- Burwick, Frederick, and Paul Douglass, eds. 1992. *The Crisis in Modernism: Bergson and the Vitalist Controversy*. Cambridge [England]; New York: Cambridge University Press.
- De Landa, Manuel. 2014. *A Thousand Years of Nonlinear History*. First paperback edition, Eighth printing. New York: Swerve Editions.

De Spinoza, Benedict. 2020. *Spinoza's Ethics*. Edited by Clare Carlisle, Zachary Gartenberg, and Davide Monaco. Translated by George Eliot. Princeton University Press.
<https://doi.org/10.2307/j.ctvkwnqjz>.

“Debris.” n.d. In *Cambridge University Press. Cambridge Dictionary*.
<https://dictionary.cambridge.org/de/worterbuch/englisch/debris>.

Driesch, Hans. 1914. *The Problem of Individuality: A Course of Four Lectures Delivered before the University of London in October 1913*. London: Macmillan.

Egedy, Stefanie, dir. 2021. *BODIES AND SUBWOOFERS 2.0 @Dystopie Sound Art Festival Berlin*. Berlin. <https://www.youtube.com/watch?v=YhKKUh7p33o&t=68s>.

———. 2024a. “About.” August 3, 2024. <https://stefanieegedy.com/About>.

———. 2024b. “BODIES AND SUBWOOFERS (B.A.S.)” August 14, 2024.
<https://stefanieegedy.com/BODIES-AND-SUBWOOFERS-B-A-S>.

Egedy, Stefanie interviewed by Burd, Joana. 2023. Egedy S Personal Interview.
<https://en.joanaburd.com/interviews>.

Egedy, Stefanie interviewed by Udvardyova, Lucia. 2022. “Sub-bass makes me happy”: An interview with Stefanie Egedy. <https://shapeplatform.eu/2022/sub-bass-makes-me-happy-an-interview-with-stefanie-egedy/>.

Fink, Robert. 2018. “Below 100 Hz: Toward a Musicology of Bass Culture.” In *The Relentless Pursuit of Tone*, edited by Robert Fink, Melinda Latour, and Zachary Wallmark, 1st ed., 88–116. Oxford University Press New York.
<https://doi.org/10.1093/oso/9780199985227.003.0005>.

Fischer-Lichte, Erika, Doris Kolesch, and Matthias Warstat. 2014. *Metzler-Lexikon Theatertheorie*. 2. Auflage. Stuttgart Weimar: Metzler.

- Folguera Santi Vilanova, Antonia, Egedy, Stefanie, Karajlic, Nele, Hegic, Denis Leo, and Rikic, Monica. 2024. "Synesthetic Art: Merging Senses with Technology." Panel presented at the Sónar+D Festival, Zorlu Center, Istanbul, April 27.
- Foucault, Michel, and Colin Gordon. 1980. *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977*. 1st American ed. New York: Pantheon Books.
- Goodman, Steve. 2009. *Sonic Warfare: Sound, Affect, and the Ecology of Fear*. The MIT Press. <https://doi.org/10.7551/mitpress/7999.001.0001>.
- Haraway, Donna. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* Vol. 14, No. 3:575–99.
- Henriques, Julian. 2011. *Sonic Bodies: Reggae Sound Systems, Performance Techniques, and Ways of Knowing*. New York: Continuum.
- Hingley, Charlotte. 2024. "30 Hz Sonic Connections: Stefanie Egedy and Her Subwoofers." *Minimal Collective* (blog). May 17, 2024. <https://www.minimalcollective.digital/editorial/30-hz-sonic-connections>.
- Huschka, Sabine. 2019. "Aesthetic Strategies of *Trance-Gression* : The Politics of Bodily Scenes of Ecstasy." *Dance Research Journal* 51 (2): 4–17. <https://doi.org/10.1017/S0149767719000202>.
- Latour, Bruno. 1996. "On Actor-Network Theory: A Few Clarifications." *Soziale Welt*, 1996, 47. Jahrg., H. 4 (1996), Pp. 369-381. <https://www.jstor.org/stable/40878163>.
- Margulis, Lynn, and Dorion Sagan. 2000. *What Is Life?* Berkeley, Calif.: Univ. of California Press.
- Ölme, Rasmus. 2017. "Movement Material." *Journal for Research in Arts and Sports Education* 1 (0). <https://doi.org/10.23865/jased.v1.967>.

- Ruprecht, Lucia. 2015. "Gesture, Interruption, Vibration: Rethinking Early Twentieth-Century Gestural Theory and Practice in Walter Benjamin, Rudolf von Laban, and Mary Wigman." *Dance Research Journal* 47 (2): 23–41.
<https://doi.org/10.1017/S0149767715000200>.
- Sambo, Giovanni, dir. 2023. *BODIES AND SUBWOOFERS (B.A.S.) 8.0: PERMANENZA*. Stefanie Egedy for *Una Boccata d'Arte 2023*. Vol. Video 1. Videos about B.A.S.
https://youtu.be/_1Yo2hcSAbc.
- Schulze, Holger. 2018. *The Sonic Persona: An Anthropology of Sound*. New York, (N. Y.): Bloomsbury Academic.
- Serres, Michel. 2016. *The Five Senses: A Philosophy of Mingled Bodies*. London; New York: Bloomsbury Academic, an imprint of Bloomsbury Publishing Plc.
- Sónar Istanbul. 2024. "Unravel the Language of Tomorrow at Sónar+D Istanbul 2024, Where Creativity, Technology, and Humanity Converge." *Sónar Istanbul* (blog). April 3, 2024. <https://sonaristanbul.com/en/news/unravel-the-language-of-tomorrow-at-sonard-istanbul-2024-where-creativity-technology-and-humanity-converge>.
- Tate. 2024. "Site-Specific." In *Featured Art Terms*. <https://www.tate.org.uk/art/art-terms/s/site-specific>.
- Uhlich, Doris, dir. 2019. *Doris Uhlich: TANK @ Tanzhaus nrw 2019*. tanzhaus nrw, Düsseldorf. <https://vimeo.com/329533046>.
- . 2024a. "Biography." August 3, 2024. <https://www.dorisuulich.at/en/biography>.
- . 2024b. "TANK." August 3, 2024. <https://www.dorisuulich.at/en/projects/tank>.

Appendix

Documentation of the Phenomenological Analysis of *BODIES AND SUBWOOFERS* (B.A.S.)

27.-28.04.2024
Sónar+D Istanbul

How to experience B.A.S.

In contact with the subwoofers:

Lying on the back

Lying on the Bally

Sitting in front of the sub

Lying with hanging legs

Sitting with hanging legs

Inside the circle

Outside the circle

SA, B.A.S. 15:45

Lying with hanging legs

body experience

Stimulation

Relaxation

Low frequency as art therapy?

Result of frequencies

Sa, B.A.S. 21:45

It's not only about hearing, but very physical

You can feel it in your teeth, your hair

Lying experience:

Jaw releases

Neck around spine, pelvis vibrating

Soft shaking

Strong vibration head

Rattle of the sound and in the sensation

Rhythmical playing

strong sensation of arms and legs that touch the subs

Flesh around the bones is being moved

Soles of the feet are stimulated

Face is vibrating

Teeth

Tympanum feels activated
Bass is breathing
Sound massage
Accents in the sound composition
Full vibrating of the body
Full release into the sub

Depending on the compositional moment of what releases how much

Massage of the organs
Mix of vibration and shaking
Effect on the breath and pulse

Acceleration in the end of the composition (interesting as a dramaturgical choice)

Compared to sub-bass experience in the club that is mostly sensible in the chest / around the upper center of the body B.A.S. can be experienced in different body parts

I feel a big basshigh
More relaxed, chill, released, grounded, calm, need a moment to come back to reality, but I feel very ready for anything

Activation of the backspace
Releasing into the floor (makes me think a lot of somatic practices when you start with a released body)

SA, B.A.S. 22:45

Lying on the Belly

release of joints
Release of tension inside the joints
Sub is almost jumping
Zoning in
Closing my eyes
Sensing the full body 3d + space + me in space
Sensing the movement of objects

So, 28.04.24 14:15

sitting in front of the sub

Going into a zone, another world
Vibrating
Waves of intensity
To sense, resonate (in a sense of time)
Shaking
Travelling through the body
Floor starts shaking
Rhythmical patterns
Resonances between sub, floor, me, the space moving with it
Massage muscles, bones

Neck is quite affected (a place that is quite tensed for me)
Hair is being moved
Flattern drrrrr
Wind shower
Relaxing the face full front side of the body - going through the body 3d
Affect on breath and pulse
Muscles around Hals 3d

Quotes from audience members

25.04.2024

- “daily dose of therapy“ (curator)
- “make the sub your home” (Stefanie Egedy)
- “The subs sound like instruments” (Sónar stuff member)

26.04.2024

- “Wow” (when subs start to play/when sound started)
- “Drrrr”
- Vibrating floor - from the feet to the neck and top of the head
- “Skin is itchy”
- ”I’m cold, my eyes are cold”
- “Feeling noxious”

27.04.2024

- Full activation: had to skip the last part – “so intense might get a heart attack” → he is filing moving water next to the subs
- Inside, outside, sitting, lying, different experiences
- “I am going to bed”
- “My brain is free”

BAS Sunday, 28.04. 18:45

- “Feels like time is expanding” (Stefanie Egedy)
- “Hmm”
- “Uhhh”
- “Stimulating awakening feeling” (soles of the feet)
- “Ju!”

BAS Sunday, 28.04. 20:45

- „Whirlpool of air“ sitting in front of the sub
- “It is wellness”
- “I’m becoming an addict, what am I doing with your absence”

Declaration of Authenticity

Alf, Stefanie Maria

Declaration

Concerning the master's thesis entitled

Vibrant Matter in the Performative Apparatus:

Sound, Bodies and Movement in Stefanie Egedy's "BODIES AND SUBWOOFERS (B.A.S.)" and Doris Uhlich's "TANK"

1. I hereby confirm

- that the term paper I have submitted is the product of my work and mine alone,
- that I did not use any other resources or aids other than the ones explicitly deemed permissible beforehand or otherwise cited by me in the term paper,
- that I have provided the sources for any portion of my term paper that uses direct quotations or borrowed ideas/concepts/results/etc. from other works, including Internet sources,
- that I have provided the sources for any portion of my term paper that uses direct quotations or borrowed ideas/concepts/results/etc. from AI-based tools (in particular text generators), that I have documented the tools used within the scope of this term paper in the appendix, and that I have specified the nature in which I used said tool,
- and that I have not submitted the present term paper for other examinations.

2. Furthermore, I am aware

- that if I do not submit my results by the deadline communicated to me in advance, I will fail the assessment,
- that, if I used AI-based tools to write this term paper, I bear the responsibility for any false or biased content, erroneous references, violations against data privacy or copyright law, or incidences of plagiarism generated by the AI,
- that if I am caught attempting to cheat, I will fail the examination,
- and that if my attempt to cheat is particularly severe, I could potentially fail the examination with no opportunity to retake it and not be allowed to continue my studies in this program.

Berlin, September 4, 2024 _____

Stefanie Maria Alf