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THINGNESS: COMPOSITIONAL STRATEGIES FOR EMERGING VIRTUAL SONIC OBJECTS

Elías Merino

Thesis submitted in partial fulfilment of the
requirements for the degree of *Doctor of Philosophy*
School of Music, Humanities and Media
University of Huddersfield

January 2019

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to my father...

1. Abstract

This selection of ten artworks represents the conclusion of my aesthetic and conceptual interests related to composition for the last three years. This research has been focused on the sound composition of immaterial vivid objects, as abstract articulated xeno entities which emerges from the listening.

After introducing key concepts and influences from the repertoire and literature, this thesis explores an essential concept called 'thingness', which constitutes the main core in the full discourse of my artistic research. My definition of objects starts from this principle, which is unfolded in four main categories: thingness in relation with sound, the listener, time, and space. Thingness has been applied in two types of works: sound installations and media-based pieces, and likewise extended to collaborations, challenging and strengthening my views within pieces of a wider aesthetic range.

2. Acknowledgements

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3. Introduction to my artistic interests

For some time, my musical practice and main source of inspiration were driven by non-musical notions and concepts. These derived from my experiences with philosophy, poetry, cinema, science fiction, and visual arts. The original idea was to conduct my thesis as work of 'conceptual art', where "art is not in the object, but in the artist's conception of art to which the objects are subordinated" (Meyer 1972, p.11). During that period, which preceded the PhD, I attempted to delegate my artistic concerns to non-aesthetic abstract concepts. Unfortunately, conceptual art would change the materiality of the work itself and would turn it into a less phenomenological art form. This approach would lead me into an ineluctable dematerialisation of the art object, but as I categorically consider my work material and non-conceptual, I refused to dispose of the work itself, the format, and the medium.

However, the use of certain concepts essentially enriches and feeds my creative process. Therefore, I decided to limit their use to one exclusively for personal inspiration. There is an attempt, throughout this thesis, to obtain a compromise and to translate these inspirational sources into sound composition. The next section will introduce all the ideas not directly related with musical discourse which have inspired me to write the artworks of this portfolio. That section will then be followed by my artistic statement, which will then be illustrated in the practice in the following two section, to then lead to a short conclusion.

4. Prologue: key concepts and a caveat

Before I proceed with the key concepts, I will define briefly what I mean by sonic objects in a concise way, which will then be unfolded in the next pages. Sonic objects are for me un-ornamented virtual entities which emerge from the loudspeaker, trying to replace it in the listener's perception. These objects should be vivid sounding bodies in front of the listener, and as such they have to be slightly familiar. At the same time they need to remain uncanny: uncanniness makes it difficult for the listener to fully access an object's origin, and this helps the object to acquire some kind of state of 'hyper realness', where the listener is not able to recognise the sounding source or the causality of object's timbre and behaviour in time. Due to the objects's uncanniness, the listener is not able to exhaust their characteristics, therefore not able to completely define it through its sonic characteristics, allowing it in the end to remain 'other' or 'xeno'.

Most of these concepts will be developed further in the following pages, but the balance between familiarity and uncanniness to allow the object to emerge vividly to the idealised listener is at the base of my compositional aims.

During the first period of research, I sought for a philosophical approach to the object, leading myself into a spiral of absurdity complete with contradictions and incongruities that could have compromised my musical work and exposed it to a non-artistic evaluation. For this reason, and due to the inherent fact that I am a composer, this cul-de-sac was discarded, establishing instead the acquired knowledge of my non-musical concerns as grounds of the crucial concepts which would serve as inspirational statements, as a personal compositional engine. The concepts detailed in this section have guided me to build the idea of immaterial sonic objects. In other words, the sound experience of these objects is, in my experience, the most consistent way for its vivid representation.

There is, in my opinion, a deep rooted contradiction established when translating philosophical concepts into a musical experience, henceforth the intention here is to find a middle ground where the conceptual and philosophical readings do not interfere with the compositional process. A search has been made in order to confine this obsession for objects to a musical domain; to achieve this, these concerns have been transferred to aesthetic guides, finding a reliable method in approaching them through the use of metaphor. Linguists George Lakoff and Mark Johnson introduced an interesting concept called "ontological metaphor" used in linguistics and arts: "A metaphor in which an abstraction, such as an activity, emotion, or idea, is represented as something concrete, such as an object, substance, container, or person" (Lakoff, G. and Johnson, 1980, pp. 25-33). This concept has served me as a tool to translate and explain non-music related concepts into compositional methodologies.

First of all, all the points covered in this section are not necessarily accurate or true. Contrasting theories are not relevant, given that they are committed to build an individual perspective under a subjective understanding of readings and interests. The actual

significance of my work is based on the aesthetics and its listening experience, following Object Oriented Ontologist Tim Morton's definition, where "the aesthetic dimension is a place of illusions, yet they are real illusions". Arguably, the aim was to create aesthetic yet virtual¹ objects, while having their own existence once they emerge from the listening.

My sonic objects could be associated with certain classifications of Gestalt theories and the auditory object; nonetheless, the intentionality in this research is one hundred percent artistic. My aim is to avoid, to the extent possible, any technical or scientific explanation as any implementation of Gestalt would only grant a didactic meaning, depriving my objects from any poetic sense.

Following this introduction, the general concepts that have triggered the inspiration to write this portfolio, will be presented and revealed in two parallel different categories, the first belonging to philosophy and the second, to art: 1) the first category is related to the nature and identity of the object, defining metaphorically its significance to me; 2) the second category refers to the architecture of the object, defining the inspirational guides followed in the process of building the structure.

Identity and nature of the object

Certain fields of philosophy have surely intrigued me for years, in particular, those which explore and speculate near futures whilst reflecting on concepts which transcend the human being. It is, in fact, my interest in the artistic fields concerning Posthumanities, combined with a fascination for those branches of philosophy that study non-human topics under a non-anthropocentric perspective, what have led me to this point. This evolves into a particularly compelling matter, for art is made by, and for humans, and it should be as well phenomenologically experienced and assessed. Over the last few years, these philosophical approaches have been extended to the art world, intriguing a number of artists, thinkers, and art agents, in addition to institutions and curators. There is an unavoidable correlation between art and the human being, but this new model of art is well collected, among others, by the authors of the book *Speculative Aesthetics* (2014), who propose to erase the "conservative preservation of the subject/object distinction articulated by a reflection produced a dominant subject that activates 'the dumb matter' of the object [...] art does not rely on human subjectivity as a final guarantor" (Trevatt, *Speculative Aesthetics*, 2014, p. 27). I fantasise about establishing my compositional practice beyond the limits of an anthropocentric point of view, as Trevatt remarks, "any escape from the contemporary requires an inhuman material lure, rather than an avant-gardist human hero to lead the way" (Trevatt, *Speculative Aesthetics*, 2014, p.32). This establishes an opposite direction of Duchamp's conservative idea, which sustained that art is activated by the audience, as it is she/he who completes the artwork through a performative action.

As an artist, I consider the relationship between speculative futures and art to be incredibly exciting, and this thesis draws, among other concepts, from Speculative Realism and

¹ The term 'virtual' refers to the non-physical

Object-Oriented Ontology: from Graham Harman (*Towards Speculative Realism*, 2010, *Guerrilla Metaphysics*, 2005), Timothy Morton (*Realist Magic: Objects, Ontology, Causality*, 2013, *Hyperobjects: Philosophy and Ecology after the End of the World*, 2013), Quentin Meillassoux (*After finitude*, 2008), or Ian Bogost (*Alien Phenomenology, Or, What It's Like to be a Thing*, 2012). Moreover by the fundamental concepts of the New Materialism (*New Materialisms*, 2010), the New Media Objects (*The language of New Media*, 2001), and Mandy Suzanne Wong's studies about sound objects and Object Oriented Ontology (*Sound objects, speculative perspectives*, 2012, *The Thingness of Sound*, 2018).

A strong division is still found among people who raise the question whether the object-oriented ontology is adequate or not for artists, I believe that if they decide to follow a posthumanist path of creation, we could reach a new definition of art and establish alternative new approaches for the practitioners.

My childhood was influenced by noir-cyberpunk fiction models, where technology destroys human race, and/or where the combination of technological capitalism and artificial intelligence forces the human to survive in a hostile baroque post-digital wasteland while 'the machine' deals with existential questions concerning '—am I more human than human—'? Nevertheless, in the last few years my attention has moved towards an alternative, and more contemporary view of posthumanism, one which, in my opinion, Ian Bogost rightly defends saying that "a true posthumanism would neither extend humanity into a symbiotic, visionary future nor reject our place in the world via antihuman nihilism. Instead, [...] a posthumanist ontology is one in which humans are no longer monarchs of being, but are instead *among* beings, entangled in beings, and implicated in other beings" (Bogost, 2012, pp.16-17), concluding: "but what do [objects] *experience*? What's their proper phenomenology? In short, what is it like to be a thing?" (Bogost, 2012, p.10).

If I had chosen a more conceptual or ideal-oriented approach about my sonic objects, they could be defined as a sort of metaphoric posthumanist composition : an alien sonic thing which would exist independently and beyond the human being, causing a rift between the uncanny and familiarity. A type of entities living in an environment where the 'correlationism' (Meillassoux, 2006) between subject and object would have been challenged, making everything equally valid in a non-hierarchical coexistence, a xeno-aesthetic entities after the Anthropocene. For Speculative Realism, "the object is a term to assign anything with unitary reality" (Harman, 2010, p.156), but my interests points to an audio object with its own virtual existence and qualities.

There are seven bullet points which are considered in this thesis as the most inspiring in relation to Speculative Realism and Object Oriented Ontology:

- Objects are impossible to know completely, because "this is what an object is,[...] it's something that we can never replace or we can never translate it perfectly. An object it is something more that can be said about it" (Harman, 2015). This idea led me to create uncanny/xeno objects and experiment with degrees of familiarity for

the listener. For me, it is impossible to access the real identity of the objects since they are not reducible to their characteristics. From here, I took the idea to make most of the objects synthetic, and explore unattainable timbres and sound behaviours, and, unconventional emergence properties. This concept will be developed in section 5.1.1.

- There is no duality between subject and object, therefore there is no hierarchy. Both humans and nonhuman entities share the same ontological meaning. Anthropocentrism has been far outplaced because “the human/world relation is just a special case of the relation between any two entities whatsoever” (Zahavi, 2017, p.133). This idea was implemented in some of the installations, where the sonic objects and the audience coexist together in the space as a simulated ecology. This concept will be explained in section 5.3, and exemplified in section 6.3, and 6.4.
- There is a rift between object appearance and its actual nature. This characteristic creates a singular paradox in the sonic object. For Timothy Morton, “objects are ontologically driven between essence and appearance” (Morton, 2013, p. 56), meaning that there is a rift between their essence and their aesthetic appearance. As Morton indicates, “it then becomes impossible to specify whether the rift is inside or outside the object and, more importantly, the rift then becomes central in exploring the objectiveness of the object. If the rift between essence and appearance closes, then the object ends and is reduced to appearance only” (Morton, 2013, p. 59). This conveys the first paradox in my work: how the object is perceived and what the object is ontologically. We can consider sound as a physical phenomenon, but at the same time it can be perceived (here) as an illusion of a living sonic entity.
- We can interact with objects and objects can interact with other objects, only by some of their qualities. Objects are “vitalities and powers irreducible to the meanings, intentions, or symbolic values humans invest in them”(Bennett, 2010, p. 47). In order to make a listener connect with the sound and identify the music as a ‘thing’, I have attempted to sculpt the sound by using listening properties which could remind the listener of a physical object. Objects partially affect one another indirectly, in a “vicarious” way (Harman, 2012). They are manifested to other objects just as an ‘image’, a simulated illusion. We can only access the sound through some of its characteristics or limited manifestations, and this is directly related with the problem of the loudspeaker/source. This will be addressed in section 5.3.2, and exemplify it throughout section 6.
- Space emerges from non-related (clashing/contrasting) discrete objects. Consequently, and as Harman explains: “two intentional objects are not really affecting each other, there is a white space between them” (Harman, 2010, p.172). If the space were made by complete relationships, we would have a systemic grid in which every object would be defined by its relationships with all the other objects and then the universe would be a complete homogeneous surface. Any attempt to

define the space must admit (the fact) that space involves a relationship between objects that are not integrally related. This evidence emerges remarkably in *Synthesis of Unlocated Affections* (section 6.3), where sonic objects are individually separated in space, and sonically dissociated and confronted.

- Objects are built of other objects, as a tissue of relationships. Harman uses Manuel DeLanda's and Bruno Latour's ideas to explain how they are assembled. These ideas have aided me to define the architecture of my own composite objects, which are based on interconnected building blocks: "an entity for DeLanda is always macro if it's compared with its smaller components, and always is micro if it's compared with the larger assemblages in which is involved" (Harman, 2010, p.185). "Entities can be considered unified things if they are seen from outside, but they can be considered as well, as a huge militia constituted by autonomous components" (Harman 2010, p.186). Instead, for Bruno Latour, the object is always a cluster and only a viewer can establish the bond among its parts, as "one object is simultaneously a part of another object *and* an independent object in its own right" (Bryant, 2011, p.215).
- The world consists of objects and their interiors. The inner anatomy of an object is made by accidents which are the features of the object to which we have access. From accidents sprout intentional objects. A sonic object exists because its characteristics, as well as its own existence, emerge from the listening. Actually, for Harman, the 'sensuous qualities' of an object, (i.e. the qualities that we can perceive which emerge from the intentional object) are merely superfluous and irrelevant to their identity. This makes my objects even more paradoxical, since their virtual qualities would challenge the realness for an OOO perspective. The qualities of the sonic objects will be discussed in section 5.1 and section 5.2.2.

Additionally, the seven points above were enriched with ideas from Lev Manovich concerning New Media. Although Manovich's references were usually about the image, he defined a series of characteristics of what a "New Media Object" is (Manovich, 2001, pp. 27-48), which, in this case, became relevant to my practice:

- Numerical representation: All new media objects are composed of digital code. A new media object is subject to algorithmic manipulation. As we will see, all the works of this portfolio are made at least in one part of the process by algorithmic composition, computer-based code or subject to algorithmic processes.
- Modularity: Media objects images, sounds, shapes or behaviours, are represented as a collection of discrete samples. These elements are assembled into larger-scale objects although they continue to maintain their separate identities: my objects are made by synthesis or process, building blocks/modules which interact among each other in different ways, creating a bigger object. This concept will be developed in section 6 and 7. This point is linked with all the concepts of this section: from

Donald Judd's specific objects and Robert Morris approach into sculpture, and Brutalism, to Object Oriented Ontology.

- Automation: The numerical coding of media allows the automation of many operations involved in media creation. Thus, human intentionality can be removed (in part) from the creative process. There is in each of my pieces at least one part of the process which is subject to generative and/or stochastic processes.
- Variability: A new media object is not something fixed once and for all: as they are algorithmic, some of my objects can be different each time they are played. In the package there are different versions/variations of some pieces.
- Transcoding: In new media, to 'transcode' something is to translate it into another format. Most of the pieces can be translated into other formats like an installation, a recording, or a performance, as it will be discussed on Section 7.

Certain key words extracted from the preceding pages (such as thing, wholeness, unitary, cluster, or relationships), have been used to link them with the following artistic disciplines, which will lead us to know more about the architecture of the pieces: 1) Brutalist architecture; 2) sculpture: Donald Judd's specific objects and the minimalist aesthetic of Robert Morris.

Architecture of the objects

Brutalist architecture

My objects's constitution have certain features in common with this category of architecture. We could highlight qualities such as austerity, coldness, geometries, repetitive modules and an undisguised use of material; although, in the case of the music presented here, there is some distance from brutalism, because I consider them, referring to repetition and geometry, more organic. Brutalism is characterised by the use of raw materials in its buildings; likewise the aim of my work is to recreate a hyper-defined raw sonic object, (unprocessed and undecorated). Brutalism's shapes, in addition to the shape of my objects, are conceived by using repeated units (iterations and building blocks) and a monochromatic or an extremely reduced colour palette. A reduction of elements (sound layers or amount of sound) show an explicit sonic object in the same way Brutalism shows an explicit building appearance.

In similarity to Brutalism, the sonic entities of this portfolio usually hold homogenous identities considered as ensembles clustering their parts (the internal structural skeleton of the object). However, at other times, they can be heterogeneous, depending on the flexibility of their wholeness and their format (installation, record, etc). Brutalist buildings's structures are transparent due to their material visibility and rawness: there is a lack of ornamentation, suggesting a quick understanding of the elements. To achieve the lack of ornamentation, reduced materials were used and seldom altered in the macrostructural

level, consequently, allowing to observe both levels, each single element, and the whole object through perspective variations.

By contrast, there are two main differences that I would like to highlight between my sound entities and Brutalist architecture:

1. In the works of this portfolio, and unlike Brutalism, it has been consistently attempted to compose articulated virtually-living objects as opposed to pure geometric and inert structures. Nonetheless, the works *initial suppressions* and *Not-exhausted about*, preserve the inherent thick and block-ish nature of Brutalism, and the (perceptual) progression of its elements, using repetition and variation.
2. Moreover, even if Brutalism and my sonic objects both lack in ornamentation, I try to challenge the accessibility to the said no-ornamentation through uncanniness. On the other hand, Brutalism's transparency allocates a complete understanding of its elements and, thus, of the whole building. Two of the works belonging to this thesis draw on familiar elements: in the first one, *Folds*, we can find a sense of musicality and narrative, while *Not-exhausted about* uses an identifiable sound source, the TB-303's acid sound. The rest of the works sustain the uncanny and xeno-nature of the object's identity.

Robert Morris's minimalist sculpture and Donald Judd's specific objects

My works examine the different sculptural ideas offered by Judd and Morris, adapting them to my approach to sound: the limits and the violation of the unitary shape, the sculptural distance between the listener and the sonic object, or the access to different object's perspectives through variations in time.

For my ideal, an object's sound is conceived as non-hierarchical and non-hieratical. The appearance of an entity should show an abstract and alien identity, in addition to an illusory materiality; a general absence of traces of compositional processes beyond phrase level, a non-anthropocentric orientation regarding sound sources and timbre recognition, and abstract articulated behaviour drifting between changes and quasi static wholeness.

The main link that connects my work with Robert Morris' sculpture and Donald Judd's 'specific object' comes from concepts such as homogeneity, wholeness, indivisibility/divisibility, and unitary forms. My interests in relation with this subject is to explore the boundaries of unitary and specific shapes with flexible wholeness, however, the intention is to avoid any didactical material based on Gestalt or Schaefferian theories.

Donald Judd stated an interesting idea about sculpture which says that "by radically reducing the elements in a work to such a degree that all would connect self-evident to the unitary shape, Judd hoped not only to cancel composition but also to eliminate the other aspect of the a priori, namely the sense of an idea or intention that exists prior to the making of the work in such a way so that it seems to lie inside the object like its motivating

kernel or core.” (Foster, 2004, p.493). This idea is particularly applied in the installations, where I sacrificed some aesthetic principles like mixing, mastering, automatisations, edition or overdubs as a way to keep the objects as raw as possible in order to suggest that they are not deliberately composed by a human. Specific examples will be discussed in Section 6.

Morris’ notions of presumption of constancy and consistency are relevant for me as well. ‘Constancy’ can be seen in this thesis as an action of non-narrative temporal behaviour and repetition, and ‘consistency’ as a concept of unity and homogeneity. This thesis has aimed to challenge the ‘constancy of shape’ suggested by Morris with regards the different works, exploring and going beyond the experience of wholeness. Examples are found in sections 6.2, 6.4, and 7.1.1.

Derived from this idea of constancy of the shape, Robert Morris avoids any divisibility, turning his sculptures into unitary objects. By opposition, Judd is interested in the specific object and the unitary form by means of repetition of identical units. For both, unitary form is crucial in their creative output.

Robert Morris’ ‘structures’ combine elements, permutations, series, and modularity, like OOO’s objects do. My objects are likewise built by modules, combination of elements, permutations, and phrases which are concatenated in order to shape the entities. We can see this in all the works of section 6, 7.1, and 7.2.

Moreover, a unitary form is meaningful in order to help the object to acquire the nature of ‘thingness’, nevertheless, my vision of ‘thingness’ is based on dynamic and active objects, since, unlike sculpture, sound is a time-based medium. My research delves similarly into ‘unitary’ aesthetic limits by including dynamic components, phrases, variations and articulations of the sound, drifting from unitary forms to divisible/discrete objects.

Summarising all the inspirational concepts belonging to this section, I have been able to consolidate them, building the core idea of this thesis, which I will develop in the next section: thingness.

5. Thingness

In order to define concisely what a sonic object means to me, I have synthesised all the concepts introduced in the previous section under the term 'thingness'. I believe thingness is what crafts an object as an object in my music; in other words, thingness is the toolset and assessment criteria I use for composing objects. It is the way to integrate and transform all my interests and their aesthetic metaphors into music. It is the way to approach the fictional dimension of the objects in sound. Thingness unfolds into four elementary pillars: the object and sound in itself, the object in relation with the listener, the object in relation with space, and the object in relation with time; the artworks in this portfolio will be contextualised under these four headers in the next section. I concluded that if I address the four issues in the right way, I ended up with a successful object. Thingness is therefore a conceptual framework that needs to be addressed in order to develop the conditions required to create a successful sonic object in my music.

Thingness helped me a lot to define a way for composing and be honest with my ideas, and be stick with a specific way of making and coherent as possible. It was thought at the beginning it as a kind of self manifesto, and realised that this actually can be used as a composing methodology.

Thingness is not associated with the passivity of the object, or with 'literality' (Fried, 1966). Thingness makes the objects what they are, and arises from their incessant dynamic activity; objects behave and mutate in the space-time.

5.1. Thingness: the object and the sound itself

5.1.1. The synthetic object: immateriality, non-humanity

One of my main interests resides in non-humanity in sound producing xeno, chimerical, and virtually physical audio objects which escape from anthropocentrism. Humanity and anthropocentrism in music are understood in this thesis, as music that can be identified as belonging to the human world, and/or sounds that are performed by human gestures, where it is possible to recognise their 'gestural surrogacy' (Smalley, 2001, pp. 107-111). To alleviate as much as possible this human presence I use a specific type of synthetic sounds with algorithmic temporal behaviours which could not ever be produced by any real sounding object.

Another reason for aiming for synthetic objects is so as to remove the Schaefferian causal listening and change it for a causality proposed by Tim Morton, because for him, "the

causal dimension is the aesthetic dimension” (Morton, 2013, p.20). As pointed in section 4, my sonic objects are aesthetic illusions after all, but equally real for the listener.

Considering Schaefer’s listening modes’ wide-reaching legacy (Chion (1994), Huron (2002), Tuuri (2012), Sonnenschein (2001), Truax (2001), or Gaver (1989), I would not venture to impose any such mode for the listener’s experience to be successful. Nevertheless, I would like to think that my sonic objects will emerge, allowing contemplation of what they might be perceived as.

Despite my concerns about non-anthropocentric objects, I have to accept that the output of the music is unavoidable anthropocentric, since art is going to be experienced and assessed by humans. Following the categories derived from the “anthropocentric creativity” (Runco, 2014, Velardo, 2017) my work would be encompassed within ‘computer-aided creativity for humans’, a type of art, that Velardo defined as an art “characterised by a generation process based on the synergy between humans and machines. Artefacts belonging to ‘computer-aided creativity for humans’ are intended to be evaluated by humans, but they are produced by human beings with the help of one or more computational systems. [...]This goes beyond the simple facilitation offered by a music notation software that eases the often tedious task of notating music. In a computer-for human system, the computer should for example suggest creative options or complement the creative ideas of the user” (Velardo, 2017, p.96).

In my case, technology comes as an essential factor during the creative process. I believe in certain poetics behind technology, and it is not conceived as a mere tool subordinated to the creativity, but a fundamental component in the process during the decision-making. Leo Marx’s term “technological sublime” (Marx, 2000, p.195) is an accurate concept to explain how machines can be perceived as aesthetic objects rather than mere tools, although I would not want my music to be judged on its technical virtuosity.

For each piece, in at least one part of the design, sound is subjected to algorithmic processes and/or directly generated by the computer. This reinforces my intentions of using computers as ‘process partners’ for the creation of new sound entities. These entities, characterised by unique timbres, physical yet unreal textures, and impossible behaviours are composed through a digitally-mediated process of “composition of timbre, instead of with timbre” (Brün, 1970, quoted in Roads, 2001, p. 30). This attitude towards digital mediation in my work is aptly summarised by Paul Berg when he states that synthetic sounds allow us “to hear that which could not be heard without the computer” (Paul Berg, 1985, p.161).

My approach to visual and sonic arts over the last few years has been influenced by the use of technology and computer-generated materials, establishing a dialogue between the artist and the machine. Apart from the already discussed contemporary Posthumanities in Section 4, my practice has been fuelled by an imagery derived from a passion about old Sci-fi/Cyberpunk (*Blame!* (Nihei, 1998), *Vermillion Sands* (Ballard, 1971), *Ghost in the shell* (Oshii, 2002), *Serial Experiments Lain* (Nakamura, 1998) *Akira* (Otomo, 1992), *Blade*

Runner (Scott, 1982), *Stalker* (Tarkovsky, 1984)), the weird (*The dreams in the witch house* (Lovecraft, 1933), *Alien* (Scott, 1979)), Romanticism and the sublime, and Symbolism (*Easter Morning* (Friedrich, 1835), *Les Fleurs du Mal* (Baudelaire, 1857), *Melmoth the Wanderer* (Maturin, 1820), *Carmilla* (Lefanou, 1872), *The Vampyre* (Polidori, 1819)), first Posthumanism (*Cyborg Manifesto* (Haraway, 1984), or *How we became Posthuman* (Hayles, 1999)). Alongside these examples, I am certainly curious about the effervescent theories about non-Western speculative futures/fictions like Chaouhuan-Ultra Unreal² or Gulf Futurism.³

These interests in computer-generated realities and future imaginations have led me to an obsession with materiality in digital arts. To be clear in this respect, I do not consider my approach to materiality as a representation or a copy of a physical sounding object. Materiality is treated as a crucial characteristic of my sonic objects to be constituted as 'presences'. My entities need to be inexorably 'present' for the listener and they have to exist physically for her/him in the same space-time. The physicality which characterises the 'presence' of audio objects is determined by an intangible materiality belonging to our post-digital era, (not referring to Cascone's post-digital music) (Cascone, 2000). Despite the fact that my objects are synthetic, or (wrongly named) artificial, the virtual/synthetic world has its own ontologies and realities, consequently, for me, there is no material/immaterial dichotomy anymore. Due to this reason, and in addition, that the last digital revolution ended when the internet became a natural part of the contemporary subject, the term artificial is avoided.

The sonic objects I created in my portfolio works, come from a reality based in a 'post-digital ontology' where artificial-natural, virtual-real, material-immaterial dichotomies are diffused, and the artificial is considered natural in its own terms. However, in some literature, my objects would be called artificial, as they agree with François J. Bonnet: "the essence of artificial is not simulating the natural" (Bonnet, *Formulations*, 2016, p.30). Such post-digital materiality defines an object's condition that oscillates between a primitive object and a sophisticated digital entity, designing a rich texture which gives enough complexity to be identified and manipulated, but preserving its virtual identity. My interests in this subject have driven me to an obsession for the abstract corporeality in the synthetic sound, which will be detailed when we discuss the works below.

I think I have reached my aims about immateriality and non-humanity, partially in *Discrete-composite* (section 6.1) and *initial suppressions* (section 6.2), and entirely in the rest of the works. *Folds* (section 7.3) and *Spaceless Latitudes* (section 7.4) were excluded due to a different intentionality involved. Now that we have a general idea about object's timbral nature, the relationship between the object and the listener will be discussed in the next section.

² <https://observer.com/2016/11/chinas-new-ultra-unreal-fiction-only-strange-art-can-explain-it/>

³ <https://www.wired.com/2012/11/gulf-futurism/>

5.2. Thingness: the object and the listener

5.2.1. Aesthetic distance and access to the object

One of my most important aims is to expose the listener to quasi organic sound synthesis to a point at which recognisability becomes ambiguous due to the simultaneous presence of both familiar and unfamiliar characteristics. This potential perceptual ambiguity induced by my sonic objects, has been created through the exploration of the aesthetic distance, which deals with a disengagement that emerges from the tandem between the listener and what she/he is listening.

The “aesthetic distance” (Bullough, 1912, pp. 87-117) or the “estrangement/alienation effect” (Brecht, 2014, p.91) are concepts generally associated with theatre or performance. In these contexts, so often driven by narrative, avoidance of familiarity and the establishment of the uncanny prevent the audience from entering into the narrative and thereby induce mystery into the audiences' perception. Thingness demands a certain distance in order to transform the sound into a ‘xeno thing’ away from the listener’s associations, impelling her/him to struggle for the access to the object in terms of aesthetic identification. Contemplation based on thingness must be generated through bewilderment. Oswald Hanfling’s “paradoxes of aesthetic distance” refer to the use of unfamiliar structures, in that to “contemplate the objects with a special attention, the perceptor is absorbed in them, going to some trouble to appreciate them properly” (Hanfling, 2003, pp.178). The abstract and unusual nature of the work that I aim to produce, poses some questions, creates a certain confusion and rejection, which involves obscurity, unreality, or visceral reactions. This compendium of consequences cause the distance, the distance creates the ‘otherness’, and therefore, the object.

An intentional ‘encounter with the uncanny’ must emerge from the confrontation of the listener with the “strange stranger” (Morton, 2010) and its phenomenological alienness. This encounter would prevent the listener from empathising emotionally with the music, but at the same time, it is crucial to include a certain sense of familiarity by using a ‘material/tactile experience’ of sound. Additionally, it is imperative to make the object accessible for the listener, but only partially. The ideal object must be slightly unpleasant, surprising, generating an estrangement effect, and avoiding comfortability or passive listening. The object must remain unknown to the listener and must invite him/her to decode it.

Unfamiliar or abstract sound elements, although that these are quite subjective, invite to perceive a sort of alien “sound in itself” (Kim-Cohen, 2009, pp.123-148). In this thesis different levels of strangeness and familiarity have been explored. Taking Hanfling’s metaphor, the contemplation of unfamiliarity grows when “given a sentence that seems not

to make sense, we may be able to work out from its internal structure that, contrary to first appearances, the sentence does make sense” (Hanfling, 2003, p.176).

My aim is to generate a listening focused on ‘the other’ by experiencing objects rather than experiencing emotions. This means that through the observation of sound ‘experiencing the world’ (signifying sound behaving in spacetime), the object emerges alongside its properties.

The ‘homogenisation of sonic space’ is an unfavourable phenomenon worth considering. Under prolonged listening, the sonic objects become familiar and the aesthetic distance between listener and objects vanishes. Such familiarity leads the listener to the verge of unravelling the object. Along similar lines, the uncanny could be transformed into something familiar, exhausting the object’s possibilities. The listener could reach some sort of platonic abstraction of the sonic object. Homogenisation of the sonic space might rarely arise, but could particularly appear in installation and on record, nevertheless I hope this does not happen. If the aesthetic distance vanishes, the listener could unveil and normalise the sonic object. This would result in a passive experience which permits the listener to acquire a sort of ‘control’ over the object, integrating it, and nullifying its uncanniness. However, I am almost certain that objects in concert format will not ever lose their uncanniness because they are only experienced for a short time. My entities in performance, as we will see in section 7.2, are displayed for one or two minutes maximum, thus the listener does not have enough time to comprehend all of its qualities, hence the aesthetic distance, and the ambiguity created between the two, persist.

Keeping the listener focused on object materiality, its specificity and its presence, becomes fundamental; consequently, a certain sense of imperfection has been used, which makes the object less ethereal, and rougher. Most of my sounds share some textural principles, such as no-ornamentation, abrasiveness, reductionism, roughness, grittiness, and a primitive sense of refinement: with this, I try to convey the wildness of the object and its Brutalist materiality. Alongside these textural principles most of my objects keep their multi-perspectival identity through sound variations.

5.2.2. Trespassing representation vs. descriptive process

With the intent of creating easily identifiable virtual objects, that trigger an experience of a material-like sound phenomena, this effect would lead a listener to perceive a descriptive and representational sonic entity. This a similar consequence to Schaeffer’s causal listening, in the same way as someone perceives a portrait or a realist sculpture. This problem could lead to the listener, as Wong indicated in her thesis about sonic objects, to “conceive sound as an object that may imply its association with visible, tangible, material objects, as with their solid, stable, locatable, and persistent or permanent presence” (Wong, 2012, p.122).

I am aware that it is almost impossible to withhold the human mind from making certain associations on its own. The brain always tries to connect new elements with familiar ones

(Emmerson, 2000). This phenomenon has been previously discussed in acousmatic music, but there is no intention in this research of going deeper on this topic. Taking distance from Schaeffer's reduced listening, my intention is focused on making the objects go beyond representation through certain unusual emergent qualities of synthetic sound.

Contemplating the emergence of complex rich objects can derive in a sort of object hallucinations. How does this prescriptive vision of listening to my music work in reality? The answer for each piece will be discussed in sections 6 and 7, but in general the intentionality of the music developed in this thesis, drifts between degrees of freedom for listeners, depending on the piece under consideration. I have explored the listener's freedom levels by expanding or reducing her/his available boundaries for imagination. *Folds* and *Spaceless Latitudes* extend the thingness to more musical, emotional, dramatic, and oneiric domains, whereas *Synthesis Unlocated Affections*, *Uncertainty on relations*, *Structures for Wavefield Synthesis*, *initial suppressions*, *Discrete-composite* and *Not-exhausted about*, suggest the original thingness idea; something like jumping from the abstract, to the concretely abstract.

The emergence of conventional musical properties does not generally belong to my artistic concerns. In my opinion, emergence in music is traditionally associated with two kinds of schemes: one is associated with generative and biological processes, and the other is associated with the musical properties deduced by listening, like pitch, harmony, counterpoint, rhythm, narrative, form, or what Trevor Wishart calls "lattice" (Wishart, 1985). The emergence usually occurs from the local interaction of the parts, and my aim is to develop a cluster of unknown properties from the sonic object, a xeno emergence not related to the traditional conception of music.

Object Oriented Ontologist and videogame designer Ian Bogost, in his book *Alien Phenomenology, Or, What It's Like to be a Thing* (2012), explains how objects experience other objects and perceive the world. Metaphorically, the installations *Synthesis of Unlocated Affections* and *Uncertainty on relations* intend to treat the listener as just another object. The listener can be aware of the objects experiencing the world by listening to them. My intention is to make sonic objects emerge through listening to become fictional alien beings. Contemplating the entities, the listener can learn about them, building up a profile and then, experiencing them; because metaphorically speaking, as Levi Bryant commented about Ian Bogost's alien phenomenology, "I will never completely understand how someone experiences the world, but I can learn a great deal about how he experiences the world by listening to him, observing his behaviour" (Bryant, 2012).

The listener experiences the object through him/herself (i.e., listening). The experience of the object is generated by combining the emergent properties, the aesthetic distance, the sound materiality, familiarity-unfamiliarity (i.e., xeno), and the effect of estrangement, and last but not the least, quoting Joshua Mailman, "prompting to the listener to imagine new affective responses" (Mailman, 2016, p.75).

Joshua Banks Mailman delivers an interesting taxonomy of other possible emerging non-conventional qualities of sound in his paper “Cybernetic Phenomenology of Music, Embodied Speculative Realism, and Aesthetics-Driven Technique for Spontaneous Audio-Visual Expression” (2016). Personally, I aim for more aesthetic, rather poetic-oriented emergent qualities, which I want to be defined and interpreted by the listener, and not, by me. Even so, I find it appropriate to take into account the ones proposed by Mailman:

1. Confusion of detail (a negative capability that enables other qualities to surface). This phenomena emerges in *Synthesis of Unlocated Affections* (at the installation version) when the listener is exposed to the object’s ecology. The listening is confusing due the vast amount of contrasting objects sounding simultaneously.

2. Perceptual fusion or blurring (another negative capability that enables other qualities to surface). This phenomenon emerges in *initial suppressions*, *Not-exhausted about*, and *Uncertainty on relations* when the listener is exposed to an object which acquires its wholeness and identity by means of tight, interweaving polyphony⁴, and its perspective changes through constant variations.

3. A feeling of the sublime, of being overwhelmed: an *affect* arising from the previously listed qualities.

In relation to the last point, we can highlight here my interest for the Sublime (Section 4). The mentioned confrontation with the uncanny becomes intimately related with an aesthetic experience of the sublime and feelings of (dis)affection (section 4 and 6.3). My approach to objects’ sublimity does not enhance a feeling of facing a transcendental entity, unlike the Schopenhauerian idea of the “sense of the sublime that arises through the consciousness of the vanishing nothingness of our own body in the presence of a vastness” (Schopenhauer, 1818, p. 273). Thingness’s sublime is still uncanny and overwhelming, but it is unpleasant and weird. That is to say, it is an awkward sublime, like an object interrupting the functionality of the music with its alienness, as ‘the visitor’ disturbs the family in Passolini’s *Theorem*.

In the light of all of the above considerations, I designed a personal taxonomy of compositional strategies that allows and helps the emergence of sonic objects from the sound material itself. This set is proposed as well to lead the reader/listener to understand how the objects interact with each other. These strategies are a combination of composition and perception since they are meant to be used for both composing and listening/analysis. The taxonomies are based in my own experience, therefore, their use are not necessarily mandatory.

1. Clashes. Different sounds collide in terms of timbre, remaining independent and isolated, consequently they are unable to blend with each other: see the example at *Not-exhausted about*’s NEA3 from 3:07 to 3:58, the sonic object is interrupted few

⁴ The use of polyphony in the whole thesis comes from the electronic music synthesis background concept of polyphony: different voices unified

times by an 'external white noise' which remains isolated and unable to integrate with the original sound.

2. Gluings. Similar objects or sounds are juxtaposed or blended, generating a homogeneous sound texture: see the example at *Synthesis of Unlocated Affections's* (album version) SUA_1 from 0:53 to 1:13, the object comprised within this time frame is composed by similar percussive sounds, generating an unified abstract polyrhythmic object.
3. Cooperation/polyphony. Objects or sounds of different timbre and/or behaviour, complement well with each other, this action usually generates a third object: see the example at *Synthesis of Unlocated Affections's* (album version) SUA_1 from 1:20 to 1:40, the object comprised within that time frame is composed by different unrelated voices, that, however, creates a new single object.
4. Morphing. One object/sound texture is processed or re-synthesised deriving into a different sonic appearance, and, at times into a different object: see the example at *Synthesis of Unlocated Affections's* (album version) SUA_9, the initial sonic object is progressively evolving into a different one, the transformation starts at 00:21 and ends in a new sound texture at 01:44.

Since part of the basis of thingness resides in the phenomenological process, we are unavoidably heading to the Gestalt theories, and so I feel I must mention some indications of Bregman's Auditory Scene Analysis, which can likewise explain the relation between my pieces and this perceptual theory. If I was focusing on it, I would be dealing with concepts such as "spatial location" (Bregman 1990 p. 73), "the notion of object" (Bregman, 1990, p. 10), the "principle of exclusive allocation" and "the sequential integration and segregation" (Bregman, 1990, p. 138). Nevertheless, I prefer to use musical and OOO philosophical influences in talking about the thingness of my sounds: if find them more inspiring, and less didactic; more a conceptual poetic anchor, and less a proof of some psychoacoustic phenomenon.

Once I stated how an object is perceived in my works, and how it impacts in the listening, the next section will discuss the way it is materialised in space.

5.3. Thingness: the object and the space

5.3.1. Sculptural distance: from 'massive objects' to 'specific objects'

Exploration of space, and especially the relation of the object with space, have been approached differently in each work, but, in all of them, fundamentally, space gives meaning to the object and it is been treated as a plastic medium. As this PhD project evolved, spaces acquired different sizes, roles and duties: while the sound in space

became physically closer and more specific for the listener, feelings of familiarity tended to fade into the distance. Presence and thingness became more specific and attached to an experience of contemplation.

My concept of space evolved from the first piece to the last one, then I crystallised my thoughts in a concept called 'sculptural distance' and it is used in the whole thesis to reflect on this evolution. Sculptural distance defines how the sonic object is represented within space in relation to the listener. Sculptural distance contains so far, four different object categories within the spatial gradient: massive objects, environmental objects, local objects, and specific objects. The difference between objects and their thingness in space is not only determined by the size or extension of the loudspeaker array, but as well by the 'proximity' of the object to the listener, where the proximity is not only defined by the actual physical distance of the sound, but with how the sound manifests itself as a 'presence' in which the listener is confronted with the loudspeakers.

The four gradient of sculptural distance in this thesis are covered by one installation each. The following lines show the order of objects according to its sculptural distance:

1. Massive object: The third installation, *Structures for Wavefield Synthesis*, is a collection of different extensive sonic objects which are materialised-dematerialised in a 192x4 channels and 10 x 10 meters space.
2. Environmental object: The first installation, *Discrete-Composite*, is a series of sound architectures surrounding the listener in a big 25.4 channel hemispheric space.
3. Local object: The second installation, *initial suppressions*, is a 5.1 multichannel piece. The spatialisation is much more reduced and static, giving the impression of having a single fluctuating object that surrounds the listener.
4. Specific object: The fourth installation, *Synthesis of Unlocated Affections*, is a sonic object fictional ecology, based on more than ten objects situated in an empty space. Each loudspeaker will only belong to an entity (one loudspeaker = one object).

The fifth installation, *Uncertainty of Relations*, is a single multi-perspective polyphonic object based on three loudspeakers, which makes it sit between a local (3) and a specific (4) object.

At the time of writing, in effect after completing all the installations, I ventured to develop a series of guiding 3D designs for a better understanding of the concept of sculptural distance, a sort of visual portrait of the objects in relation with the listener and the space. These designs have been created with the aim to bring the reader closer to the sculptural distance on a transparent and unpretentious basis, and are not meant to be seen by the audience. Each representation consists of one (or several depending on the work) 3D virtual object and a red capsule, the latter representing the listener in the listening space.

These drawings can be found in 'Thingness: the object and the space' of each installation (Fig 2, Fig 4, Fig 6, Fig 10).

Now that the relationship between object and space is clear, I will discuss the element which allows the sound to exist: the loudspeaker.

5.3.2. The role of the loudspeaker

The original idea for the installations was to hide the loudspeakers behind the walls, or to create a structure to cover them. This idea was quickly dismissed because the sonic object needs to wield a strong dominance over the physical object, and so, the loudspeaker must be visible but not as if it were a sculpture, since I am not pursuing any visual interest. Therefore, in my work, loudspeakers are thought to be neutral and omnipresent objects as the listener get used to see them being similar despite producing different local sonic objects, they will become a mere tool which disappears from sight. Moreover, it depends on the piece, the way they are being used: as dots to join or as a building tool.

The aim is to enhance the corporeality of the sonic object by removing the presence of the loudspeaker (making the listener unaware of it), in effect displacing the perceived emitter from the loudspeaker to the virtual object. This matter has been explored extensively in *initial suppressions*, *Synthesis of Unlocated Affections*, and *Structures for Wavefield Synthesis*, responding to the following question, raised by Roger Scruton in his essay "Sounds as a Secondary Objects and Pure Events": "Do we attribute the object qualities to the bodies which emit them? Or we attribute the object qualities to the sound itself conceived as a independently existing objects?" (Scruton, 2009, p.228).

5.4 Thingness: the object and time

5.4.1. Articulated objects, non-teleology, and limiting narrative

As it has been already introduced at the beginning of section 5, my objects are not conceived as passive, static entities. They are a potentially infinite set of possible articulations, perspectives, and variations. As stated beforehand, there is a continuous search in this PhD of removing any evidence of human gesture or agency in installation, record, and performance. However, the vividness of the objects is one of my fundamental aims: if there is no human agency behind the sound behaviour, the relationship 'performer-gesture-sound' would be reduced to one agent: sound alone.

Articulations are an essential feature to give the objects a xeno-appearance in time. As already discussed in section 4, part of my conceptual approach to the sonic object is defined by the term 'xeno' as a posthumanist speculation about new forms of existence;

this is applied to thingness in most of the aspects, including time. Music critic James Iadarola associates non-linear time organisation in some examples of contemporary computer music with a concept called “queer time” (Iadarola, 2016). An important idea for the posthuman feminist branch Xenofeminism, which draws from queer and transgender theories, ‘Queer time’ was coined originally by Judith Halberstam, but in this case, it was adapted by Iadarola to explain narrative in the work of computer music artist Mark Fell. This concept can be applied with no hesitation to my own work: “Queer time can be defined as a way of being that exists beyond the linear and conventional notions of familiar institutions and biological reproduction” (Halberstam, 2005). This definition fits with the temporal behaviour of my music, considering that all of them are outside the straight time constituted by models of teleological narrative development, and equally outside from what Halberstam calls “paradigmatic markers of life experience - namely birth, marriage, reproduction, and death” (Halberstam, 2005, p.2).

It is really engaging how ideas that were not previously taken into consideration can emanate from the creative process. During the articulation-making process, I noticed there were some important concepts which were missing to my cognitive toolset: the relationship between discrete-continuum, and the relationship between continuity and discontinuity. These questions will be briefly discussed in sections 6 and 7. The fact of interrupting the continuum is another reason for having chosen objects with different structural levels. I consider a dynamic object as an object which breaks the continuum, like a hole breaking the surface, generating the autonomy of the object. Therefore, as Godøy states about coarticulations in sound, “it is only by intermittently breaking out of this continuous stream that we will be able to make sense of whatever we perceive, implying that we have to think of events in a single ash of awareness” (Godøy, 2011, p.69). Articulations, discreteness and continuum interruption create segregated objects and divisibility. Nevertheless, sound continua could also be amenable to thingness, and there are two works developed towards this idea, which have been called ‘articulated continuum’ (*initial suppressions*) and ‘broken pulse monolith’ (*Not-exhausted about*), which will be discussed under each piece’s entry in chapter 6.

Following Godøy, Curtis Roads and Schaeffer, micro, meso, and macro levels of objects are defined in a temporal domain articulation. In my work, those levels exist temporally as well, but they are more in relation with the different timbre strata, gestures, and polyphony. A sonic object is not a sound fragment but an autonomous thing itself, an imagined whole greater than its exposition in time.

A potential object divisibility is determined by the connection of different object structures (micro, meso, and macro), and its perspectives in time. A junction of all those is what makes a bigger object behave, like an articulated limb that escapes from the rigidity and explores changes, transformations and irregularities and helps, by that confrontation, to segregate the various (sub)objects. This concept is materialised fundamentally in *initial suppressions*, *Synthesis of Unlocated Affections*, *Structures for Wavefield synthesis*, *Uncertainty on relations*, and *Spaceless Latitudes*.

5.4.2. Object with multiple perspectives and mutations unfolded in time

There are a number of different approaches for the articulation-making process which have been developed during this PhD. Depending on the work, articulation trajectories vary: sometimes they move linearly, sometimes shifting perspectives, or turning to a different object. At other times they are given at a microstructural level (polyphony, variations, accumulation, or superimposition). Regardless the behaviour, articulations are always focused on appearing as a natural emergent phenomenon. Moreover, there is usually no teleology, but my objects might appear 'dynamically alive' thanks to sound articulations in time. They metaphorically mutate and shake against external forces "constantly shifting between effort and relaxation" (Godøy, 2011 p.73). Specific examples will be included during the commentary of each piece.

A sonic object can change over time when the articulations make it evolve or behave. Apart from the aforementioned articulations, we can use five other methods to explain accurately the behaviour of the objects. This taxonomy was created during *initial suppression's* making process and will be addressed with concrete examples during the works' analysis in sections 6 and 7.

As previously mentioned, the strategies are conceived to help the listener to understand how the objects interact with each other in time. These are a combination of composition and perception, since they are meant to be used both for composing (a priori) and/or for listening/analysis.

1. Cancellation. The current object is related with the following one just by proximity, when an object ceases to appear, the first object suddenly disappears, and the next one appears with or without including a silence hole: see the example at *Synthesis of Unlocated Affections's* (album version) SUA_1, an object ends at 00:48 and a completely different one begins at 00:53 preceded by a silence hole. See example at *Structures for Wavefield Synthesis's* [BR/CR] Structure 2, an object ends suddenly at 2:00, and a different object starts after a silence hole.

2. Renovation. The current object changes its perspective (like when we shift angles as we contemplate a sculpture or a building). The current object's perspective disappears and another one is juxtaposed with or without including a silence. The change of perspective is generated by sound processes, despite this, the object remains similar in essence: see the example at *Synthesis of Unlocated Affections's* (album version) SUA_4, the object shows different parts of itself over the time (i.e different behaviours and slight modifications in timbre). Examples of two different perspective switches: change 1 at 00:15, and change 2 at 01:04. See example at *Synthesis of Unlocated Affections's* Object4, the object is subjected to a series of juxtaposed perspective switches keeping its identity. There are noticeable transformations but timbre and behaviour remains similar. Examples of two different perspective switches: change 1 at 02:01 and change 2 at 02:45.

3. Variations. The current object is mutating over time through variations in the global surface: see the example at *Synthesis of Unlocated Affections's* Object2, the object varies at micro level keeping its homogeneous surface. See example at *Synthesis of Unlocated Affections's* Object 7, the object varies progressively keeping its homogeneous surface.

4. Repetition. The current object maintains its perspective and identity, and remains almost unaffected over the time: see the example at *Structures for Wavefield Synthesis's* Structure_2, from 0:00 to 2:00. See example at *Structures for Wavefield Synthesis's* [BR/CR] Structure_1 from 00:00 to 00:37.

The previous sections stated and contextualised the general lines of my research. Once defined thingness, it will be applied to every work of this thesis. These works are encompassed in two main families, which we will discuss in the next chapters: 1) object in installation (chapter 6), and 2) object extended to other formats (chapter 7).

6. Object in installation

First of all, it is worth introducing a brief context including some questions about the traditional practice of sound installation and sound sculpture. Both approaches are important to my work and I will indicate how both of them have an impact in my music.

About sound installation

Fundamental concepts, such as body in space, have already been dated from 1960s in postmodernist artistic movements, the Fluxus, or the Japanese Ongaku and its interventions in architecture or 'happenings'. However, in these practices, human bodies were used as the main artistic agent and the sound tended to remain in the background.

Traditionally sound installations aim also to modify space through audience's exploration. Sound installation artist, Brandon Labelle, says that "the movements of the body intrude upon architecture, lining space with a fluctuating presence, durations and inhabitations that cut into formal design" (Labelle 2012, p.3). The intention under this view is to generate a dialogue between the sound and the space, a type of symbiosis in which they both could nourish from one another and create an effect in the acoustics.

Many of the traditional sound installations have been implemented in different manners depending on the artist: either through artefacts disposed in space while generating sounds; through sounds which activate physical objects, or through distributed loudspeakers playing either pre-recorded or real-time sounds. These approaches can be appreciated in works like: *Fear of high places and natural things* and *Gain and Lift* (Vitiello, 2004, 2014), the complete work of Zimoun (2015), *frequencies* (Bernier, 2014), *When words become forms* and *When books are like butterflies* (Roden, 2010, 2008), *Chijikinkutsu* (Akamatsu, 2015), or *Ensembles* (Marclay, 2007).

Several other artists have similarly approached space transformation, here are some examples: *Time Square* (Neuhaus, 1967), or *Harmonic Bridge* and *Acoustical Visions of the Golden Gate* (Fontana). These artists suggest an errant listening, to which Brandon Labelle found a definition: "experience of listening can be appreciated as intensely relational, bringing us into contact with surrounding events, bodies and things" (Labelle 2012, p.1).

From a thingness perspective, an installation ought to be generated by sound, and sound itself has to include the material or architectonic properties without a container, which could promptly rise to a visual interruption. In other words, the sound itself has to represent everything. Nevertheless, following a traditional sound art perspective, errant listening could be applied to three of my works: *Synthesis of Unlocated Affections*, *Structures for Wavefield synthesis*, and *Uncertainty on relations*.

About sound sculpture

Another traditional way of dealing with sound in the gallery environment affects indirectly the installations of my PhD: the concept of sound sculpture. Furthermore, it has a very similar approach to the installation, I consider that a sound sculpture has to be an installation and the content of a sound installation has to be sculptural. Since the term 'sound sculpture' was coined in the late sixties, it has been explored, from my point of view, on a superficial level. The reason is due to sound sculptures merely focused on displaying material artefacts that generate noise with either mechanical or sophisticated devices. We can observe this phenomenon in classic sound sculptures like *Untitled* (Bertoia, 1976), *Rosebud Annunciator* (Von Huene) or *Sound Sculpture* (Jacobs, 1969, 1973). Moving forward in time, we can find similar examples in the complete works of Zimoun (2015), *Versus* (Letellier, 2010), or *frequencies (light cuanta)* (Bernier, 2014), just to mention a few.

Personally, I believe the fact of considering any sound work as an installation or sculpture must be determined by the sound itself. Sound and its spatio-spectromorphological characteristics, have to shape the sculptural qualities, like the position of sound in space, density, plasticity, morphology, or temporal perspectives. This research, as discussed in the previous sections, refuses any physical artefact aside from the loudspeaker, which is a mere neutral vessel.

Now that I have introduced a general personal perspective concerning installation and sound sculpture, I will develop the analysis of the five sound installations crafted during the years of research. Each work will be analysed on the basis of the evolution of thingness in relation with sound, with space, with time, and with the listener, all of them preceded by a brief context and a declaration of artistic intention.

6.1. *Discrete-composite*

Discrete-composite constitutes the first piece of the thesis. However, like most beginnings, I did not have a clear idea of how to undertake thingness, or even that it would become so central to my artistic reflection and practice.

Before discussing further aspects of this installation, it is crucial to start with a key concept called 'immaterial sound architectures' which was coined by Bernhard Leitner. He proposed an idea of a sound installation where the sound generates the space through its movements, or as installation artist Michael Brewster pointed out, through "sonic drawings" (Brewster 1990), in works like *Soundcube* (Leitner, 1971), *Zylinder-Raum* (Leitner, 1974) or *Firmament* (Leitner, 1996). It is important to note though that the only feature common between *Discrete-composite* and Leitner's is purely spatial, and does not go further aesthetically.

Thingness. The object and sound itself

This installation portrays a sequence of seven sound architectures altogether considered as an integrated whole. This whole acquires the shape of a space made by the juxtaposition of the seven, like a ‘multi spaced room’.

At that time, my capability to create an ideal synthetic sound and therefore to gain access to non-humanity was still in an initial process; this explains the paradoxical fact of using an instrumental recording as sound material. Despite not being theorised hitherto, this shows my early concerns about non-humanity. The process of *Discrete-composite* was initiated resynthesising a small collection of short flute samples, those which I managed to dehumanise beyond recognition by abstract gestures, behaviours and articulations. This allowed me to remove any human action behind the sound source, ending in a “remote surrogacy” of the gesture, (Smalley 1997, p.112).

The multi-spaced room of *Discrete-composite* has been constructed from a system arranged by different basic generative granular synthesis modules (that is, building blocks) and each module represents a single sonic architecture. This sort of synthesis was conceived by Dennis Gabor (1946) and Iannis Xenakis and it was subsequently re-baptised by Curtis Roads as a musical aesthetic called “microsound”. Grains allow the creation of discrete and fragmented sounds positioned in different areas of the loudspeaker dome. All the architectures were shaped by arbitrary sonic drawings as a spatialisation method.

As we saw in previous sections, building blocks function as autonomous objects when they are played independently, as each one has its own behaviour. In this case, the different internal objects/architectures (that is, synthesis building blocks/modules) were related by juxtaposition and superimpositions, and therefore the wholeness of the installation can be divisible. Nevertheless all transitions are sonically smooth, it is slightly noticeable when one architecture finishes and the next one starts. (see⁵ ‘DC-excerptlong’ at 05:20, and at 06:50, ‘Stereo reduction variation1’ at 12:43, and at 1:44, ‘Stereo reduction variation2’ at 4:19, and at 11:38).

By using granular synthesis, I could focus on different sculptural aspects like sound morphology and density with the aim of conveying uncanny materiality and malleability. The interconnected granular modules make at times individual elements (see ‘Architecture5’ from 0:29 to 1:10, and from 1:39 to 2:40, ‘ArchitectureST4’ from 1:03 to 1:10) and, at times, fluids or rough masses of sonic grains which reminds of a swarm motion (see ‘ArchitectureST6’ from 1:31 to 1:46, from 3:22 to 3:50, ‘Architecture3’ from 5:36 to 7:00, and ‘Architecture2’ from 0:42 to 1:00).

⁵ In chapters 6 and 7, audio extracts provided on the USB stick will be referred to this way.

The aim of a non-human perspective in sound is manifested as a xeno-sculptural entity which needs to be non anthropo-oriented, or as justified by nonstandard synthesis precursor Koenig, who describes his own work: “the computer [would] act as a sound-generating instrument sui generis, not imitating mechanical instruments or theoretical acoustic models” (Koenig 1980). Although the sound source of *Discrete-composite* was transformed heavily, I feel there was still some reminiscences of the flute and a certain anthropocentric orientation towards the sound, which brought me to abandon such sources in the later works.

Now that I have defined sound itself, I will proceed to explain how the sound’s behaviour is developed in space.

Thingness. The object and space

The physical room layout consists in a loudspeaker cylinder entitled SPIRAL, a 25.4 multichannel space with a sweet spot, located in the University of Huddersfield. *Discrete-composite*’s whole sonic object is represented as a big space, like an immaterial room. The different ‘sections’ are the different specific sonic architectures inside the actual physical room, composed by a series of immaterial virtual architectures.

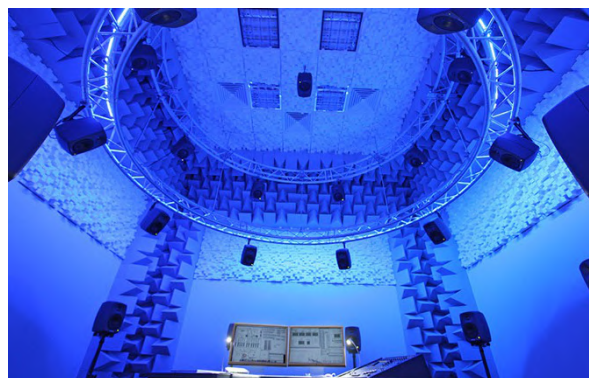
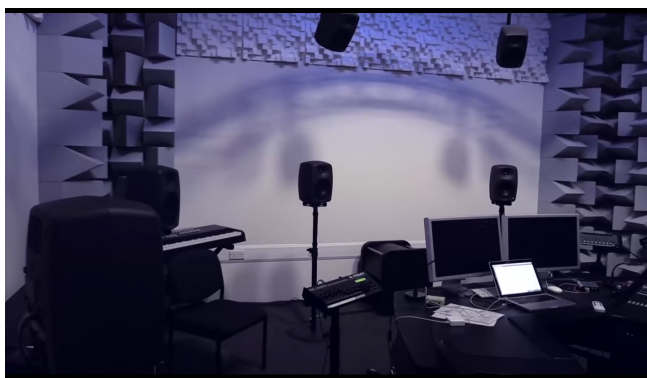


Fig 1. SPIRAL (University of Huddersfield)

In an essay about Leitner’s work, Cathrin Pichler defines sound spaces, posing a definition that could be used as an explanation for the virtual spaces of *Discrete-composite*: “sound spaces are not just spaces in which sound can be heard. Rather, it is sound itself that creates the space and its special qualities. Therefore the experience of hearing not only enables us to experience the space around us, they can also make it possible to experience physical space as an ‘inner space’ (Pichler 1997).

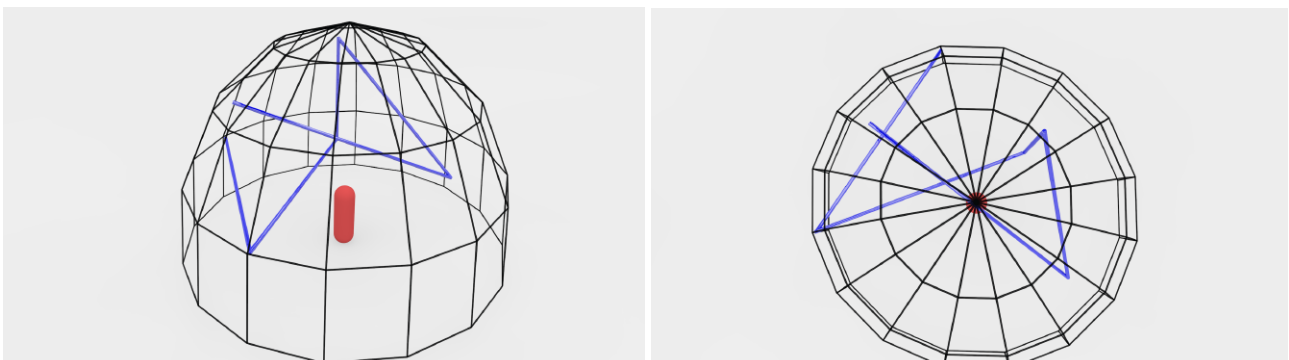
As we can see, Leitner’s considerations are meaningful for *Discrete-composite* and Leitner himself clarified it with these sentences: “in sound architecture the shape of space itself is defined by travelling sound” (Leitner, Artforum 1971). “Space can be defined by lines. A line of sound is produced when sound moves along a series of loudspeakers, defining space by lines of sound” (Leitner 1998, p.13). If the listener connects the dots of the sonic

drawing, i.e. the different positions in the space, he/she would obtain a sort of Xenakis's polytope, an abstract polyhedron sitting in the space.

Therefore, with this intent, the spatialisation has been designed as a constant course of sound among twenty-four loudspeakers, and the sound itself defines drawings and abstract structures in space which never repeat the same pattern, constituting an infinite configuration of immaterial objects, and quoting Leitner again, a "constant sequence of spaces" (Leitner 1971). Its spatialisation varies in intensity and rhythm, defining the sound trajectories which are inspired by the graphic work of the computer artist Manfred Mohr, especially on *Cubic-Limit* (1972-75) and *P-197 J* (1979). Mohr's approach was my guide to establish an undefined feeling of the sound in space, because, as stated in section 5, the intention is to create uncanny nonrepresentational objects since, in Manfred Mohr's words: "an abstract entity is never a re-interpretation of a world we already know. It is a door to the unknown of understanding human thinking. An abstract content is the purest form of transmitting aesthetic information. It excludes unnecessary associations and brings interpretation to a new level of communication" (Mohr, 2012, p.69).

I originally planned to produce as perceptible as possible the spatial drawings by introducing slow movements. Then I realise that I preferred to communicate an abstract sense of strangeness, which would allow me to get close to the aesthetic distance and consequently, to my ongoing idea of uncanniness. As a result, I developed a system that could induce a spatial disorientation with aggressive and chaotic sound trajectories: sonic drawings became frenetic and confusing, and this was a great achievement given that we can feel overwhelmed by sounds or perceptions that we cannot locate or understand, yet still conveys as sense of spacial order and tactility.

At this point, the existing relationship between the listener and the sound in space still belongs somehow to the spatial music in the sense that the movement of the sound source through space is one of the primary compositional parameters. The broad sound architectures generated around the listener, and how the sound spreads in the space, makes the entity an environmental object, as introduced previously. However this was not emergent enough, therefore the next pieces had to delve into the sculptural distance, in terms of how the evolution of the sonic object is getting closer, whereas the evolution of the aesthetic distance, which makes the object gradually uncannier, moves it away from the listener.



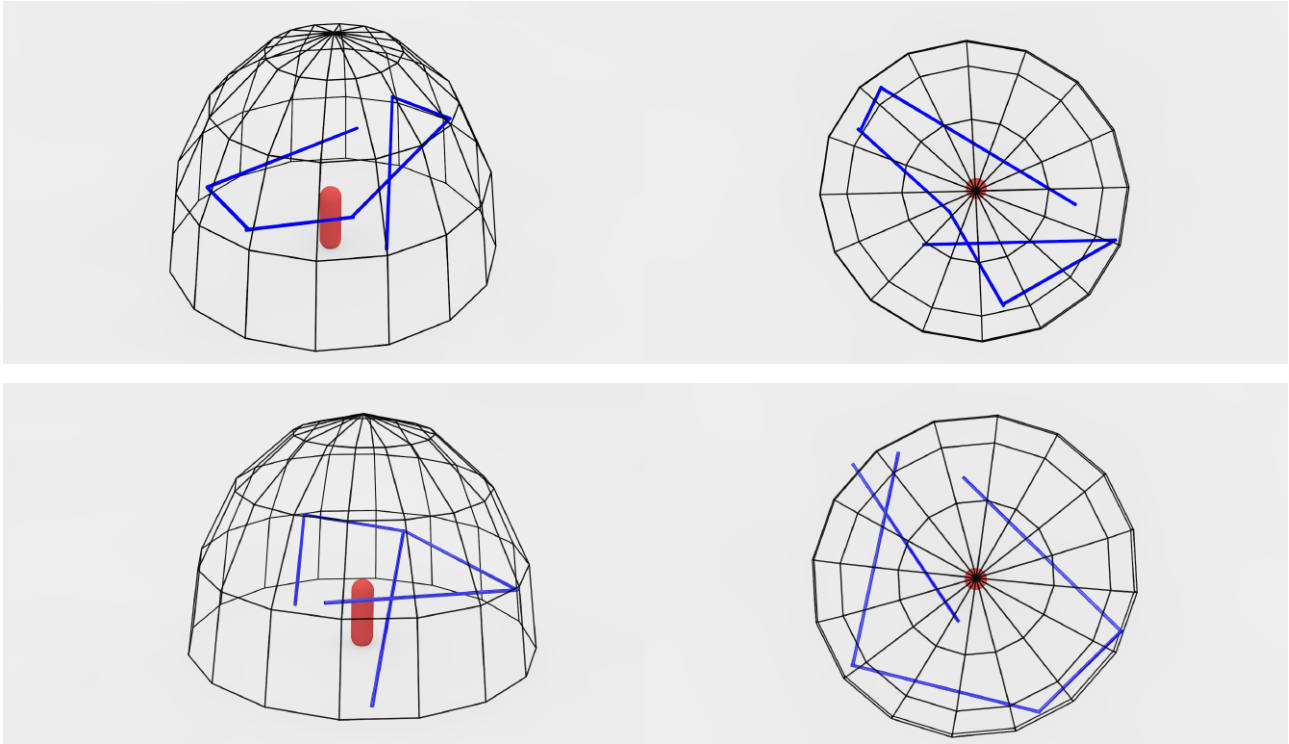


Fig 2. Environmental object representation

Thingness. The object and time

Time organisation is based on a juxtaposition and superimposition of elements with an ambiguous linear projection reduced to phrase level. Sometimes sounds are organised through undetermined systems of repetition, accumulation, or dissemination of the grains. It is impossible to give an exact timing of when this happens, since sound behaviour is frantically changing. The intention was to create a non-teleological fluctuation which does not work in a larger “time vectorisation” of sound (Chion 1994, p. 18).

A perpetual fluctuation of sound in time generates a kind of flat temporal structure considering that hierarchy neither exists among sounds, nor a teleological structure between phrases. However, my aim of creating a succession of different sonic architectural spaces entailed a certain sense of slight narrative. The temporal structure is created at two levels of ‘narrative units’: micro and meso. The micro narrative is created by the sound inside the granular synthesis building blocks. This narrative happens within each architecture (see ‘Architecture1’ to ‘Architecture7’ inclusively). The meso narrative is created by the conjunction of the different building blocks. This narrative happens whilst the different architectures follow one another (see ‘DC-excerptlong’ at 5:20, and at 6:50, ‘Stereo reduction variation1’ at 12:43, and at 1:44’, and ‘Stereo reduction variation2’ at 4:19, and at 11:38).

Differences aside, there are some artists who share some similar approaches to *Discrete-composite* in relation to timbral textures and use of sound masses: *Imago* (Wishart, 2010), *Half Life* (Roads, 1999), *nuit fauve* (Bayle, 1982), *Surveillance* and *Brazil* (Luque, 2009/2011), or *Hic Labor Ille Domus Et Inextricabilis Error* (Tricoli, 2014). The most

significant aspects which differs in these is how I have tackled space and time: the mentioned works are stereo album-oriented pieces with a clear narrative arc, while *Discrete-composite* is a generative multichannel installation where moments are chained to create multiple perspectives on the same entity.

6.2. *initial suppressions*

By mid-2015, sonic artist Zimoun asked me to release an album in his label leerraum⁶. The series of publications to which my release belongs had a very specific aesthetic statement, and knowing other releases on the same label, I had an idea of what Zimoun was aiming for. Here are the verbatim indications that he gave me for the piece, and we can see that these requirements were fitting with several ideas and compositional interests I was dealing with in my research at that time:

“To create just one situation, one sound space which kind of stays what it is (no development of the composition over time), but to have enough small little activities to it stays interesting even if there is «nothing happening», even if the composition is not going anywhere” (Zimoun, personal communication, December 12th, 2015).



Fig 3. *initial suppressions* (leerraum) cover artwork by Philipp Schaefer

These instructions were adapted to my personal approach and put into practice in the second stage of my artistic research: *initial suppressions*, a multichannel reductive single object with unitary shape. This work represents a type of static entity, but rich and complex

⁶ www.leerraum.ch/

at a microstructural level, defined earlier as ‘articulated continuum’ (section 5.4). This installation shares certain similarities with the work of Zimoun himself (*Mise en scene + Zimoun 28.26* (2018), *33 ventilators*, *4.7m3 Packing Chips* (2014)) or another artist, PeLang (*Moving Objects* (2015), *Speaking of Membrans* (2015)), like using a multiplication of the same element creating a massive amount of them. In my case repetition and multiplication of the same element is never strict; in fact, it is continuously changing and unlike Zimoun or Pe Lang, I use synthetic sound instead of physical sounding objects, which leads the experience to an audiovisual oriented contemplation, as I discussed at the beginning of this chapter.

This piece is probably one of the closest of the portfolio to the aforementioned approaches to minimalist sculpture and Brutalist architecture. *initial suppressions* explores composition as a homogeneous identity clustering its parts, showing no ornamentation and using reduced material. The piece likewise explores another two concepts derived from the previous ones: wholeness and divisibility, as we will see along this analysis.

Thingness. The object and sound itself

initial suppressions is based on a similar approach to *Discrete-composite* because I planned to make a completely new object, while sharing some logical progression from the previous piece. For the first time in the thesis, the object is made by pure computer-generated sound, which is subjected to a cluster of granular synthesis modules with different, but related characteristics that keep the identity of the object. Each module works as a building block. Each building block is linked to another cluster of algorithmic patterns that organise the sound in time, and control every parameter of the synthesis process such as envelopes, filters, grain density, or space.

Working with the concepts above, the aim of this piece was to challenge Morris’s concept of shape constancy, and explore the experience of specificity, and the wholeness of the object. As previously mentioned, is often my intention to make music as simple/reductive as possible and, in this piece, it is an essential characteristic because, following from Morris again, “simplicity of the shape does not necessarily equate with a simplicity of experience” (Morris 1965). I’ve also observed that the inverse is true.

The architecture of the object is built by two kinds of structures: macrostructure and microstructure. There is no dominance within these, I considered that both macro and micro structures were complementary. In the macrostructure, the cluster of different building blocks creates the perception of the object as a whole, keeping the unitary form and shape constancy. (see the whole piece ‘initial suppressions’ a single macrostructure; also, as specific examples, see ‘initial suppressions’ from 1:19 to 1:29, from 2:46 to 3:49, or from 11:23 to 12:45). The microstructure, in contrast, zooms into the object. The relation among the large amount of divisible inner sonic object variations, juxtapositions and superimpositions, create a bigger entity (see ‘initial suppressions’ from 1:54 to 2:04, from 16:01 to 16:10, or from 22:12 to 22:21).

This project was my first real approach to the non-humanity and the (synthetic) materiality, obtaining for the first time a sonic presence from the sound material itself.

Thingness. The object and the listener

Dealing with the wholeness of the piece-as-object and its unitary shape allowed me to discover how connecting small objects, I was able to create a compound unitary one. This object here is characterised by a quasi-static form, which encourages the listener to zoom in and out of the macro and microstructures.

This possibility makes *initial suppressions* a quasi-indivisible object, where the inner objects within the whole one are not acting only as parts: the listening experience can oscillate in this work between heterogeneous and homogeneous sound perception. I tried for the first time to challenge divisibility, i.e. segmentation vs fusion. It may be paradoxical and oxymoron as it has happened in many cases during my artistic research, but it is interesting to create a wholeness, and at the same time as to have the possibility of isolating each 'inner object' through a kind of zoom-in listening. When gathering all the dynamic components, phrases and micro activities of the sound, the object can still be recognisable as a unitary form, because if we believe Morris, "unitary forms do not reduce relationships" (Morris 1965)

While taking notes about the evolution and the differences between *initial suppressions* and *Discrete-composite*, new questions arose that would be applied in the next pieces, and one of them impacted on how the relationship between objects has a consequence in listening. These questions have been crystallised in a taxonomy which will be triggered in Section 6.3.

With this piece, I had not yet achieved thingness completely, mainly because of the timbre of the object itself, and its behaviour over time. To my great satisfaction, I had been reassured by the possibility of creating a 'static' thingness based on the principles of unitary form, wholeness, and divisibility. Although the thingness had been successful in many ways, it was not yet the desired one defined in section 5. The aesthetic distance was still rather insufficient, unwillingly giving the listener the possibility of 'controlling' the installation, being able to enjoy it in a relaxed, contemplative, and even a hypnotic way, and therefore there was a possibility that the aforementioned phenomenon of the 'homogenisation of the sonic space' could emerge, which is for me highly undesirable. As for *initial suppressions*, this phenomenon entailed a listening mode that could be rather associated with drone music and, therefore, with a certain passivity in the object, reinforcing the duality I try to challenge.

Given that possibility of falling into the homogenisation of the sonic space, I decided to push it to the limit and attempted to create a wandering state of no expectation between attention and boredom. I believe that the culture where we live in has made us a kind of subject characterised by this drift among expectation states. A deliberately created boredom in art represents a subversive action against a contemporary need for non-

attention, immediacy and continuous entertainment. Despite this, I have created a very detailed object at a microstructural level for an active listening, and thus become interesting, in line with Cage's famous quote: "if you attend long enough to what is boring you will find that what is boring is not boring after all" (Cage, 2011). Even more than in *Not-exhausted about*, *initial suppressions* examines the limits of non-expectation, and a negation of the discontinuity that generates surprise in listening; still, these are pieces with plenteous changes and gestures; this piece therefore questions the popular paradigms of hyperactive 'experience' guided by the constant stimulus, the sudden dynamic changes, and the tensions where the 'waiting' is not taken into consideration in our aesthetic experiences. It focuses on micro changes in a slow process, as Dick Higgins pointed out: "an opposite to excitement and a means of bringing emphasis to what it is interrupted" (Higgins, 1968).

Thingness. The object in space

The physical space for this installation was defined by a 5.1 surround sound (ITU 5.1). Unlike *Discrete-composite*, *initial suppressions* is a single object embodied by a reduced amount of loudspeakers. In this piece, the sound fills the space completely in a relatively homogeneous way. The object behaves in space as a kind of single living monolith, as its sound does. This is the first time that the loudspeakers have been considered as building agents in order to materialise the sound, trying to eliminate the background and the empty space, and consequently, territorialising the virtual object as a huge entity which fills the space.

In relation with the sculptural distance, *initial suppressions* is a local object due to its nature as a single-compounded and territorialised presence, which is based on a reduced space of 5.1 loudspeaker ring. Thanks to the overlapping and grain densities, I have been able to design a very dynamic spatialisation of each element, but at the same time, the object exists in a space almost statically.

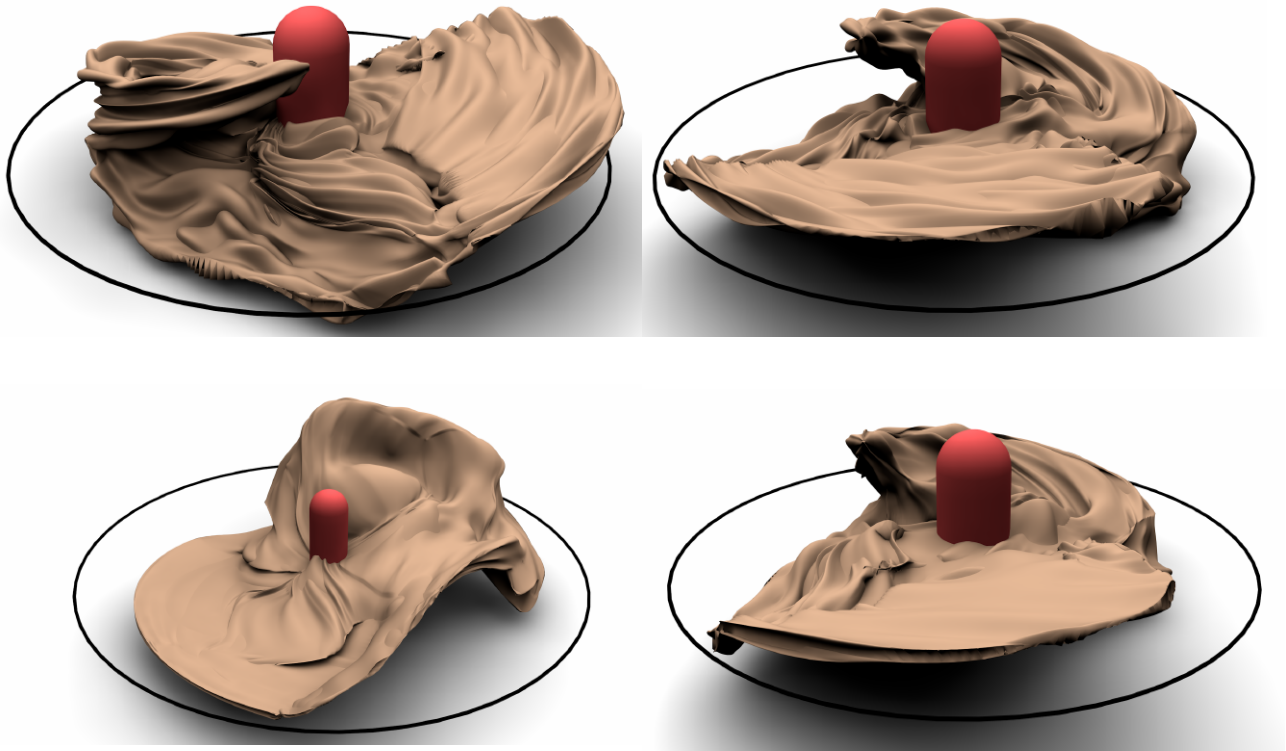


Fig 4. Local object representation

Thingness. The object and time

initial suppressions is a natural evolution of the previous piece, it is more sculptural but less architectural. This approach is towards a concrete object emerging from the listening rather than to a succession of different spaces. Like its predecessor, this piece does not have any teleological projection since all the changes occur at the microstructural level, and these do not give rise to a linear temporal progression. The object is hyper segmented, or composed as a handful of sand. There is certainly a constant rupture of the continuum, however, the accumulation of micro objects is quite considerable and so the transformations happen at an inner level, while the wholeness remains almost intact.

The installation is generative, but its limits are enclosed enough so as not to break the continuity of its shape, and thus it keeps the homogeneity. Generative micro variations can be found in the global shape, sometimes through repetition, or alterations, overlays, or progressions, according to the density of grain accumulation. In regards of the taxonomy of time introduced in section 5, *initial suppressions* fits in the following categories: cancelation, renovation and variations.

I think the piece has successfully created a non-ornamented Brutalist (im)material presence. In spite of having reached an important step in all my aesthetic research in terms of timbre, time behaviour, and having achieved an interesting textural fluidity, there are still some anthropocentric associations, in addition to lacking a certain mystery when contemplating the object. Nonetheless, at that point, I was certainly on the right track to finding the desired thingness.

6.3. *Synthesis of Unlocated Affections*

Synthesis of Unlocated Affections is a sonic installation which represents a fictional ecology⁷ of discrete sonic objects disposed in an empty gallery space. I say fictional because there is no actual interaction among agents, the feeling of ecology emerges from the listening. Every object is materialised by a single loudspeaker, and all of them need to be of the same brand and model, so they do not draw attention more than they should. This work is the closest, most successful, and most complex representation in relation to the main core of this research. For this reason, and to test its sturdiness, I've extended *Synthesis of Unlocated Affections* to other formats, namely an album and a performance as we will see in section 7. This does not mean it is an isolated event; instead, all the pieces of this thesis describe my learning process. This project took me approximately two years of development for the installation and the record. However, *Folds* (Section 7.3), and *Structures for Wavefield Synthesis* (Section 6.4) were written in parallel.

This time, there was a clear hypothesis that gave rise to *Synthesis of Unlocated Affections*. Before starting on the first draft of this piece, and directly after finishing *initial suppressions*, I realised that all my works shared a condition that needed to be removed for the new project: the passive environmental listening.

I decided to remove any environmental listening experience, and thus, it would reduce the local object to a specific object, regarding sculptural distance. Therefore, I planned to make an experiment before starting the composition of *Synthesis of Unlocated Affections*. In spring of 2016, I proposed to my peers of *The Nothing, Seeking Answers*, to design an installation based on some ideas around non-passive environmental listening using a single loudspeaker. *The Nothing, Seeking Answers* is a sound collective created in December 2014 by Daniel Del Río, Rian Treanor and myself. This project is based on abstract computer-generated sound and algorithmic digital synthesis in sound installation. Del Río and Treanor agreed with the proposal and, to carry out this project, we decided to invite two other composers, Francisco López and Olivier Pasquet, to write a piece around this conceptual constraint. The result was the collective installation *The Nothing, Seeking Answers: indivisible streams*, premiered at Cafe OTO in 2016⁸.

⁷ Here ecology is used in its widest definition, as a metaphor, and refers to a space of an emulation of coexisting independent sonic objects that are (not actively) interacting because they share a same space. It is used by opposition to an 'environment', in which the listener would enter to observe passively a composed space, or a 'collection of objects' that would be independent of each other and of the listener, presented as items. It is a setting in which all agents are specific objects that coexist and might experience each other's experience to different level of influences, in line with OOO concepts explained in chapters 4 and 5.

⁸ <https://www.cafeoto.co.uk/events/the-nothing-seeking-answers-indivisible-streams/>



Fig 5. *Indivisible Streams* at Cafe OTO, picture by Mer Marín

This project features five solo works, one per collaborator. The installation explores the distance between the listener and the object listened, giving to the sound a specific object nature in a single position, where the sound comes from minimalistic synthetic material, which acquires complex morphologies with nonlinear time developing, creating a single presence in an isolated point.

indivisible streams confirmed to me some striking points of my hypothesis. For the first time, I was really close to thingness; I could feel myself discovering a new step, one which eventually would lead me to *Synthesis of Unlocated Affections*. Aside from this revelation, a number of intriguing questions arose from this project: the space-sound-listener relationship was reduced to practically a sonic object-listener relationship due the reduction to a single object on a single loudspeaker. This fact enhanced the duality between subject and object. This duality made the object's contemplation an intimate connection between two entities (even if there were more than one person in the space) and therefore, sculptural distance was fortunately fully reduced into a specific object. Later, I would take this phenomenon as one of the characteristics of the cohabitating objects in *Synthesis of Unlocated Affections*, which became even more interesting with a complete 'ecosystem' of one-loudspeaker-based objects. This co-existence would help to remove the collateral, yet significant, problem of the duality between sound and listener.

Thingness. The object and sound itself

My source of inspiration does not usually come from music. Nevertheless, there are certain artists who have been a great influence regarding my approach to computer generated music: Iannis Xenakis, The League of Automatic Music Composers, some of the non-standard synthesis precursors like Gottfried Michael Koenig and Herbert Brün, but especially some significant artists belonging to the new generations of contemporary computer music, coined under different terms but essentially pointing to the same place: extreme computer music (Hoffmann, 2012, p.2, Hawort 2015, p.4) and radical computer music (Goodiepal, 2009, p.1); artists such as Florian Hecker, EVOL, *Live Salvage 1997>2000* (Haswell, 2008) or *Palace of marvels* (Schmickler, 2010). These artists gained special relevance in my work because of the way they approached timbre creation, the

behaviour of sound over time and space, and their artistic work as a practice which goes beyond sound and music. In my opinion, these artists can be considered within the category of Post-Xenakis composers, as I myself would like to be considered. For Hoffmann, “post-Xenakian not only doing art after Xenakis (“post” in time and “post” in spirit) but also doing art beyond Xenakis (“post” in a sense of transgression)” (Hoffmann, 2012, p.1).

Being a little more specific, it has been Florian Hecker who perhaps has resonated in a more forceful way in my practice. It is fair to mention that both Hecker and EVOL have vividly participated as computer musicians in Speculative Realism and Object Oriented Ontology, as even the title of their works shows: *A Script of Machine Synthesis* (Hecker, 2017), *Formulations* (Hecker, 2016), *Speculative Solution* (Hecker, 2010, 2011), *The Real Thing* (Hecker, 2011), *Chimerization* (Hecker, 2013), or *Affordance* (Hecker, 2013) among others. Regarding EVOL, and one of his members, Roc Jimenez de Cisneros, we can find some contributions in *Hyperobject 1-2* (EVOL, 2013-2014), and the *#OBJECTHOOD* podcast series (Roc Jimenez de Cisneros, 2013).

Although there are some common and distinctive points in our music, I find many differences. The main one being that Florian Hecker focuses his practice generally on Auditory Scene Analysis and psychoacoustics, as we can see in his whole oeuvre, where he fuses Gestalt with OOO principles. There are, nonetheless some explicit examples apart from the aforementioned, such as *Event-Stream-Object* (Hecker, 2010) and *Halluzination, Perspective, Synthesis* (Hecker, 2017) among other works. Section 5.1 and 5.2.1 explain the avoidance of Gestalt theories and how this research is purely focused on the creation of aesthetic vivid entities around the idea of thingness from other conceptual and aesthetic grounds.

After this contextual outlook of my influences I will describe *Synthesis of Unlocated Affections* itself and its relationship with thingness, as I have done thus far.

Regarding the research’s aims, *Synthesis of Unlocated Affections* accomplished for the first time, in my opinion, a successful creation of non-human related synthetic objects. I believe it transmits the vividness and an (im)materiality and physicality not subjected to any representation.

In order to achieve the synthetic nature of the object, I have used a compendium of different approaches of computer-generated sound synthesis that allow me, in Brün’s words, to “create what otherwise might never happen” (Brün, 1970, p. 2): the less common side of microsound (Roads & DeCampo’s pulsar synthesis and Wishart’s waveset synthesis), Koenig and Brün’s nonstandard synthesis, Reid’s formant synthesis, and Xenakis’s stochastic synthesis, to mention the most relevant ones.

As explained at the beginning, I have focused on virtual-based physical sound properties. I have a lively fascination in rough and elastic/malleable sounds, as well as in a kind of refined unprocessed aesthetics. In my view, this is the most interesting method to generate

materiality in sound, as with undefined nature and behaviours. In a comparable way with “Hecker’s Brutalist “truth to materials” approach, emulating friction sounds like sawing, scraping, twisting, and tearing, these pieces obtain a similar “hyperrealness,” (Haworth, 2015, p.48).

Sound is generated algorithmically in real time; it creates something different than a mere reproduction of the previous actions of the composer in the studio. I have sacrificed a relative ‘optimum’ result allowing the emergence of sound accidents. My aim is to remove all listening remains of compositional process, as I pretend to remove any perception or feeling of the composer’s writing process in his/her studio. Although all objects are partially or totally subjected to algorithmic processes, most of them have been looped and have not been running in real time during the installation. This decision was the fruit of some discussions made with Pierre Alexandre Tremblay about the ontological vs. phenomenological liveness (McLaughlin, 2012). Ontological liveness occurs as the sound is actually executed live, when a performer plays an instrument, or if an electronic sound is generated in real-time. Phenomenological liveness, which is what I consider truly essential for this case, is determined by what is perceived as ‘live’ and it can be defined as the liveness of the listening: ‘I’m listening to it now, so it’s live’. In addition, the phenomenological memory is rather short for these complex sounds. They come from a loudspeaker and their structure seems to be difficult to remember. The listener does not feel s/he is listening to a loop, in part because of its long duration. I thought it was convenient to loop the objects in order to sort portability and stability related stress for the envisaged week-long installation settings.

Going from the general to the particular, I will zoom in now to the object because I would like to explain how it is built. I am going to explain the structure of the object, as I consider it to be significant for the understanding of *Synthesis of Unlocated Affections*, as well as, for the object relations. Each object has a different but similar building structure. In their skeleton, the microstructure comes first: it is a system which generates synthetic sound material by means of the techniques mentioned above. Then, in second place, comes the mesostructure level, the sound material is deconstructed through several custom algorithmic waveset building blocks, from which there are several modules. Each waveset module synthesises the sound using repeated iterations over the same sound, as it will define the behaviour throughout time. Each iteration modifies and changes the properties of the sound in different ways: it becomes occasionally generative and in other moments, determined. However, randomness is generally bounded; my intention is still to create a certain homogeneity and coherence in the appearance of the object in order to assert its identity. Sometimes iterations and repetitions are extremely fast for the human ear (maybe there are ten different iterations in one second); this process makes sound accumulations, superimpositions and juxtapositions in time, creating uncanny-like morphologies in sound.

The macrostructure level is in third place, it establishes a relationship among the array of waveset building blocks, allowing them to interact either simultaneously, or through

routines, superimposition, juxtaposition, or addition. A module can cancel another one, or they can be organised through patterns with different durations.

As described before, my intention is to show an object composed by multi structural tissues which share a flat relationship among macro, meso and microstructure. It is important for me to restrict a whole access to the object; one of the ways, aside from the uncommon emergence qualities mentioned in section 5.2.1, would be by endowing the object with characteristics and behaviours that the human ear cannot grasp. I like taking Harman's concept "physical bonds" to explain this metaphorical relationship among object's structure: "there is the unremitting duel between an object itself as a real unity, as a single thing, and the same object as made up of numerous specific features [...] The object in and of itself is merely doubled, split between its formal unity and its abundance of traits" (Harman, 2005, p.149)

I also like what Morris says about his sculpture's structures, that "they can be walked through or looked up at. Some are simple in form, but most are baroque in feeling beneath a certain superficial sombreness. They share a romantic attitude of domination and burdening impressiveness" (Morris 1966). This idea can be experienced in the overall structure of *Synthesis of Unlocated Affection's* installation, due to the amount of abrasive objects being experienced at the same time and because of their respective individual heterogeneous timbral nature and their time behaviour. This helps us again in my purpose of achieving an overwhelming and sublime chaotic coexistence among the objects in one space.

Thingness. The object and space

Immediately after completing *indivisible streams*, it seemed that the logical consequence to me was to isolate each object in a separate room. Nonetheless, I realised quickly that the fictional ecology among objects would instantly disappear and there would not be any opportunity for the objects to reject and withdraw from one another, which is one of my aims. This isolation of one object in a room would only keep that undesired feeling of a duality subject-object, henceforth I would be, basically, repeating the problem of duality that I found in *indivisible streams*, just multiplied.

A second hypothesis, this time after having composed the sound material of the piece, I decided to place the objects in the same empty space in order to allow the listener to perceive a strange and disorienting coexistence of objects. My first idea was to arrange different discrete loudspeaker structures along the exhibition space. One structure would correspond to one object, with each structure being designed in advance as a construction/sculpture of various loudspeakers. The listener would remain 'outside' the sonic object, in order to avoid the immersion. By establishing these structures, the audience cannot be immersed in the sonic object, and this, in my opinion, grants the loudspeaker structures, the effect that Morris achieved in his practice: "an experience that simultaneously confronts and isolates the viewer" (Morris, 1965, p.82).

Nevertheless, this decision held an essential inconsistency: although the loudspeaker structures would keep the listener outside the sonic object, I was afraid that they would function as sculptures transforming themselves into the object itself, and leaving the sound in the background. My original intention is to consider them a neutral recipient, like a door through which the object can manifest itself; therefore, there is no room for any more material objects to be considered.

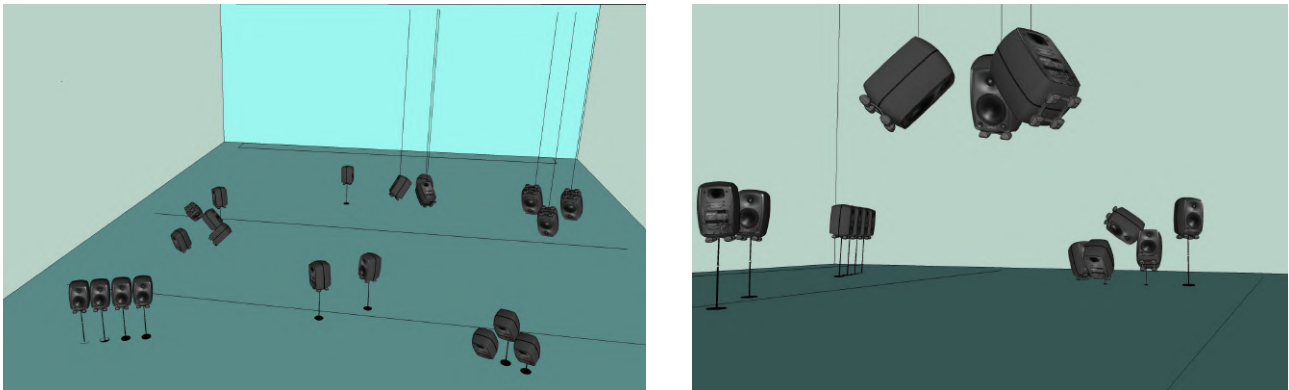


Fig 6. First (discarded) spatial approach to *Synthesis of Unlocated Affections*

Seeing that this idea was not going to reach my goal, I decided that each object would be materialised through a single loudspeaker, meaning that I had to return to the initial idea of *indivisible streams*: only one loudspeaker per object, in order to create an illusion of coexistence and to allow the object to have as much individuality as possible. Moreover, they would be the same model, so as to be ignored. This enables a type of exchange between unitary and specific entities: all different sonic objects coming from similar loudspeakers, help us listen to their respective different sonic objects and dismiss the loudspeaker itself.

This disposition of loudspeakers allows the listener to approach and dialogue with the object in two levels at the same time:

1. It is possible for the listener to encounter every single-specific object, by focusing his/her attention only to a single entity, for instance by getting disproportionately near one loudspeaker;
- and
2. It is possible for him/her to encounter the global, not located object, which emerges from the interrelation of the specific ones, by aiming to listen holistically, for instance by moving to a point more equidistant to most loudspeakers .

After a few tests, I realised that this illusory ecology, rather than an environmental listening experience, creates coexistence where, at last, the listener is not the centre of the piece. Since I am looking for a non-environmental passive listening experience, my aim is to create a sort of experience where the viewer enters a space in which all the objects are metaphorically listening to each other, as I explained in section 5.2.

Once chosen the spatial arrangement of my objects, I had to decide the way to give them life. At first, I thought that I would take a collection of objects and make them behave dynamically: they were played with silences or through random volume variations and envelope transitions from one object to another, depending on the moment. After some tests, I realised that by using these methods I was orchestrating the objects while creating an unwanted musical form. This type of organisation made the objects work in cooperation, while ranking each other, and destroying the feeling of living in a wild ecology. In my idea of installation, objects should withdraw from each other so as to not cooperate towards a single, top-down teleology. Therefore I decided that all the objects must sound simultaneously, each object having its own tensions, gestures, and articulations. Consequently, the global object would breathe and transform itself, hence the use of the 'ecology' metaphor described above.

During the course of the thesis, I have been connecting my sonic objects with some minimalist sculpture's concepts, but nevertheless I would like to clarify that there is an immense difference, and the greatest way to explain this is by taking Michael Newman words about Hecker's work: "in a way is very different from the alienated pacification that seems to be the experience of much Minimalist art. This could be called dramatisation in the sense of synthetic compositions that transform along with the listener's shifting attention or position within a space" (Newmann, *Formulations*, 2017, p.73).

Presently, I wanted to portray a real possibility of isolation and autonomy among the objects, emphasising the difficulties they encounter when affecting each other, cooperating among themselves and gluing one another. This is why I referred earlier to an ecology; however, a homogeneous sonic experience can appear due to the amount of objects existing at the same time, making it perfectly possible to confront each object independently. Object Oriented philosopher, Reza Negarestani makes an interesting point when he comments about Hecker's installations saying that it is a work "that allows for a non-homogeneous picture of sound perception and ecological complexity" (Negarestani, *Formulations*, 2017, p.51). This can be applied to *Synthesis of Unlocated Affections*, although, as I have previously mentioned, unlike my approach, Hecker focuses on the auditory object perception which affects directly the aesthetic result. Furthermore, to reassert his gestaltic approach and goals, he does not work with a coexistence of objects as I do.

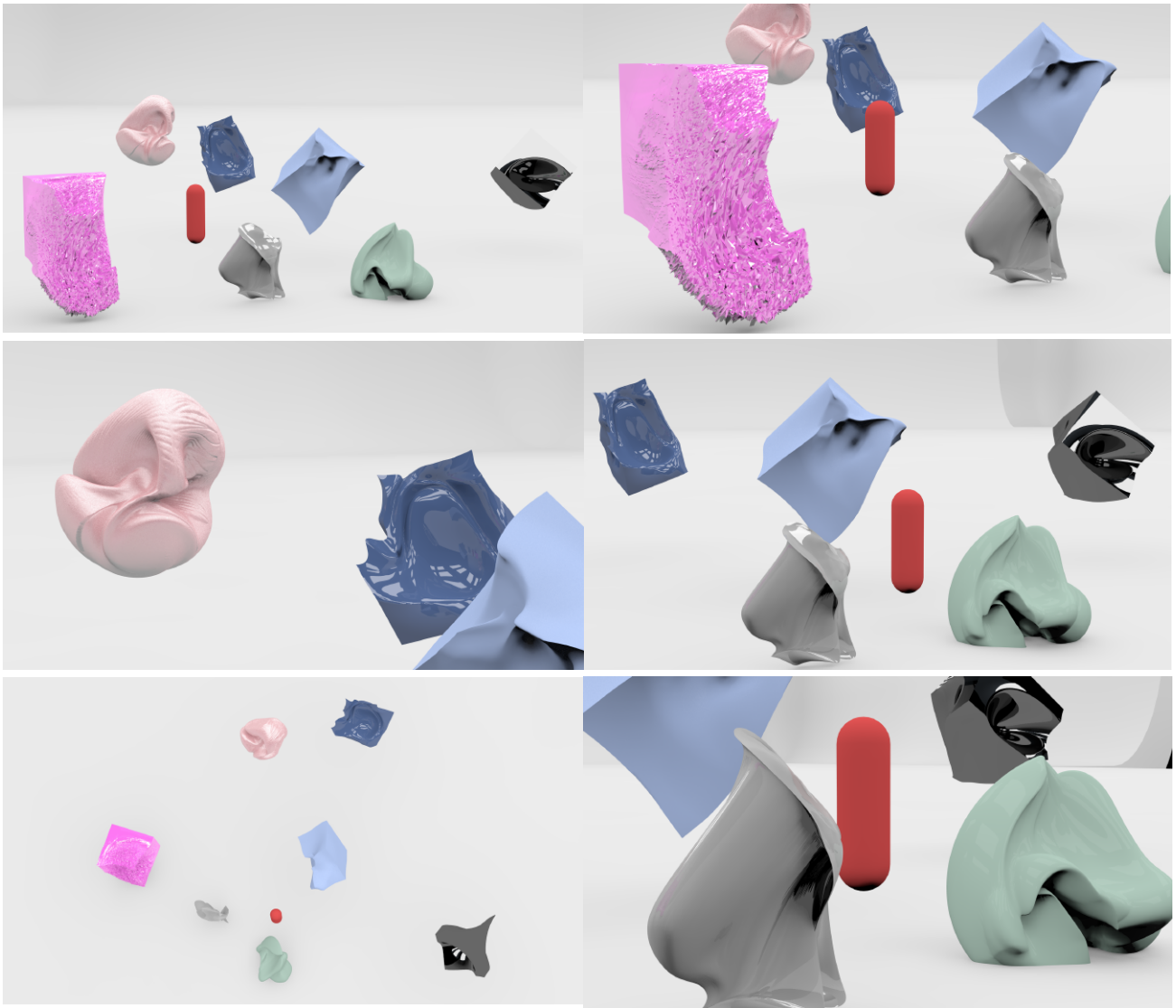


Fig 7. Specific object representation

For me, this ecology of specific objects is a habitat of non-related sonic bodies. Objects share their existence, and they are partially connected together by some of their characteristics. As Harman certainly noted about the ontologies of objects, “objects interact with one another” (Graham Harman, moderna museet talk, 2015) by means of a small subset of their qualities.

Philosopher Ray Brassier, in an essay about Harman’s approach, says: “every relation between objects itself, unfold within other objects. [...], showing how the problem consists in showing how discontinuous, autonomous objects can ever enter into relation with one another” (Brassier, 2014, p. 7). This idea supports the understanding that my objects must be partially connected, but in the end, essentially isolated. This is why the objects are sonically fighting among themselves while sharing some aesthetic principles. The installation is chaotic and therefore, defines each identity by confronting one another, which makes them autonomous and unique.

A further reason for the objects to 'fight among themselves' is owing to a metaphorical adaptation of an idea extracted from Speculative Realism about space. I mentioned this idea in section 4 and 5, and now we find a concrete example in this installation. For Speculative Realism, space is a void that emerges from non-correlated objects. Space involves a relationship among objects that are not integrally related, otherwise, we would have a grid, a continuum with no space holes. I expressed this non-correlation with a bundle of heterogeneous objects which inhabit in a non-concordant and disorganised sound environment, complicating any potential polyphonic association between them. When one or more listeners enter the space, we witness an agitated coexistence of human and non-human bodies.



Fig 8. Draft of spatial representation at University of Huddersfield, pictures by Sebastien Lavoie

Thingness. The object and the listener

In my desire to generate 'alienness' (xeno) through the rift between familiarity-strangeness and affection-disaffection, which should arise from the sum of the non-humanity, the estrangement effect and the unconventional qualities of sound which emerges from listening, I aim to distance the audience from the artwork in order to avoid any similitude or identification. This is an interesting process because 'objectualising' the sound, in the terms of what I understand as 'object', demands a certain distance and disaffection between the sonic object and the listener. I think Susanne Gaensheimer has hit the nail on the head, when she speaks about Hecker, in defining thingness in a way that is applicable to *Synthesis of Unlocated Affections*: "inducing an experience of radical defamiliarisation, he explores synthetic sound in its irreducible materiality, as a thing in itself" (Gaensheimer, *Formulations*, 2017, p.4).

I feel that my objects have trespassed any representation, offering to the listener a sonic encounter with the stranger. An uncomfortable morphology of the objects creates some necessary rejection, which allows embracing a feeling of strangeness.

The type of objects that I aim to present is endowed with both sound and musical unconventional emergent properties. Reading music theorist Joshua Banks Mailman has made me believe that his words could not describe any better what is in my contemplation to be the qualities that should become visible in my objects: "unconventional emergent qualities are hard to get at, hard to learn, and difficult to communicate about" (Mailman, 2016, p.74). I believe this work is the first time that I have achieved a complete emergence of the object, as well as a radical and unconventional emergence which, I feel, differs substantially from what is commonly created in music.

Bogost's ideas, explained in section 4 and section 5.2, about how an object experiences another, are finally materialised in this installation. Metaphorically speaking, I am keen on positioning the listener as another object within the installation. By means of the listening, the listener experiences the object through her/himself, who becomes an object too.

As I introduced in *initial suppressions*, I have classified the relationship between sounds and objects in four possible approaches, which are determined by their temporal organisation and timbral association in relation with listening. Going back to my taxonomy of segregation methods, I have decided to create objects that will correspond to almost all the categories. This will increase the drift between affection-disaffection while withdrawing from the objects among themselves and in relation with the listener: clashes, gluings, cooperation/polyphony, and morphing.

In his most recent book, Curtis Road proposes some interesting composition dichotomies that could be added to the taxonomy of my work (Roads, 2015, p.38). I have chosen two that can support the affection-disaffection process of the objects: smoothness ('object2',

'object1') vs roughness ('object8', 'object5'), and simplicity ('object7') vs complexity ('object10', 'object12') in synthesis.

Synthesis of Unlocated Affections challenges affection and wholeness, since the objects are generally clashing among them. Object's rejection makes a bizarre sound diversity. It is somewhat obvious that this rejection among objects is consciously designed for conceptual and aesthetic reasons, because, as mentioned several times, the objects are connected only by some of their characteristics, as they segregate from one another. Of course sometimes a wholeness and global polyphony can potentially emerge in the sonic space depending on the type of listener and his/her own associations, and this serendipity should be appreciated albeit not being 'composed'.

Thingness. The object and time

Queer time (section 5.4.1) is specially embodied in this piece in a global level of the installation and moreover in an individual and inner level of every object. Each object is a non-linear narrative unit, which has its own temporal extensions and of which sounds behave in very different ways depending on the object.

While in the previous works there is a prevalence of a more static sound behaviour, *Synthesis of Unlocated Affections's* objects agglutinate both pseudo-static (see object2, object7) and highly articulated (see object9, object10, object11) ones. Such amount of objects with different natures mixed together in the same space creates a constant change in time perception oscillating among variability, fractures, continuity and discontinuity in sound phenomena. This results in an installation which is in a constant morphing, with a non-teleological time progression.

Based on the categories of my taxonomy of time, *Synthesis of Unlocated Affections's* objects correspond with cancelation, renovation, and variations.

In conclusion, I believe my objects are, in this piece at last, at the same time a series of individuals, and an organisation of things. Moreover, they are irreducible to how we perceive them as they can be pressure wave as well as post-digital entities. They can be additionally a computational system or an interconnected mesh of other smaller objects. In fact, my objects are real, as real as an emoji can be, or a videogame's final boss. They can call themselves 'aesthetic objects' (section 4) and we can call them at last "speculative fictions" (Bogost, 2013).

6.4. Structures for Wavefield Synthesis

In September 2016, concurrently to the project presented in the previous section, I was invited by The Game of Life Foundation in The Hague to develop a work for their Wave

Field Synthesis System (WFS). This system consists of 192 loudspeakers, which are arranged in a square formation of 10 by 10 meters (Game of Life Foundation, 2009).

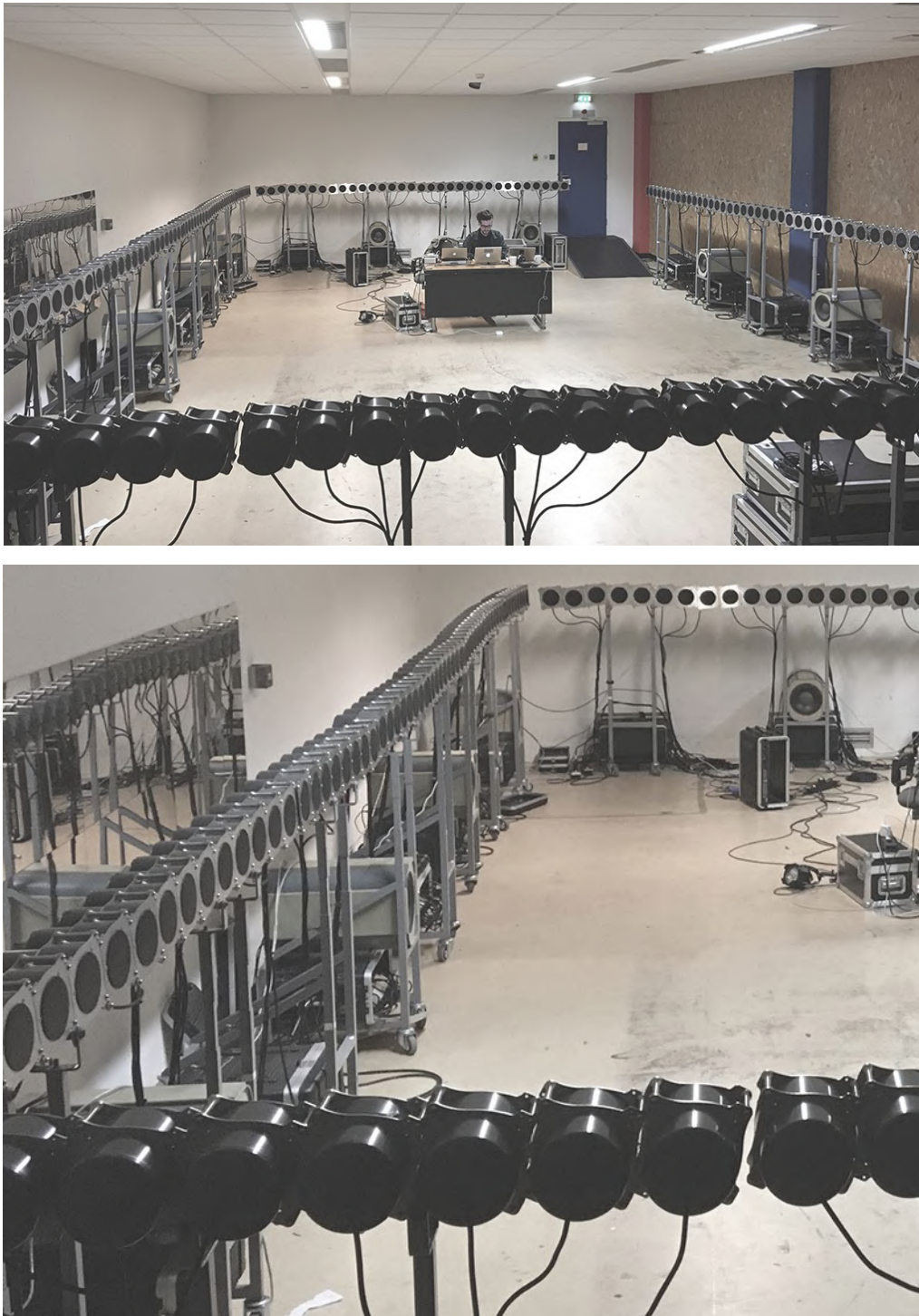


Fig 9. Game of Life's Wavefield synthesis system. Pictures from my residency by Casper Schipper

During my residency I developed a collection of computer-generated sonic objects and assembled them as an installation. This time I am comfortable to talk about an installation because it is not possible to experience the objects correctly outside of this system. Needless to say, any audio or video documentation will never be close to the actual experience of a listening in the real space. Having said this, I did my best recording these two versions: 1) live binaural sound in the physical space (see Binaural recordings[BR]),

and 2) sound rendered directly from the software in a virtual space (see Computer rendered sound[CR]). On both of these, I tried to render a result as close as possible to the experience in the room, but unfortunately, it never replicates the original listening: it is not truthful enough, due to the unique nature of the system.

This residency turned out to be really useful, for I could explore the possibility of turning the ‘installative nature’ of my objects into something more composition-oriented: I had to make fixed portability-friendly pieces in terms of giving the music a chance for a recorded typical sitting listening. Afterwards, this project would help me to develop the album version of *Synthesis of Unlocated Affections*, as we will see in section 7.1.2.

Structures for Wavefield Synthesis shares almost everything with *Synthesis of Unlocated Affections* sections on ‘the object and the sound itself’ and ‘the object and the listener’. I will therefore only highlight the differences between this piece and the previous one: on its use of space, and its sound’s behaviour in time.

As a rule of thumb, I decided to avoid to showcase the most obvious features of WFS, such as the trajectory-based spatialisation, since my aim was to make objects emerging in specific spatial areas. Due to the technical characteristics of the system, and its powerful possibilities in relation to spatialisation and sound synthesis, I built a collection of different discrete synthetic sound bodies with unique peculiarities, by exploring the location-unlocation concept and some perspective variations.

Thingness. The object and space

Although WFS is assembled in a 192x8 loudspeakers array, my work approaches the setting through the idea of a unitary – but divisible – object. I conceived spatialisation in this work as a sort of spatial located-unlocated perspective, making irrelevant the number of channels or loudspeakers, from the traditional ‘multichannel as point source’ point of view. I’ve used the system as a kind of ‘building agent’ rather than to signal points through which the sound moves around. These building agents work directly in shaping the sound, thanks to the built-in possibility of using the spatialisation system to synthesise the sound. That methodology was extremely helpful for the building of the objects in space, it gave them the appearance of materialising and disappearing. I used local sound trajectories and subtle spatial movements to shape the sound, to create objects with a certain size and width, and to create new textures and articulations: they are vivid sound bodies rather than articulated trajectories as temporal events subjected to positions in the WFS space. These different objects appear and disappear in different ‘zones’ within the square. I avoided as much as I could any feeling of a sound moving around as trajectories in the space.

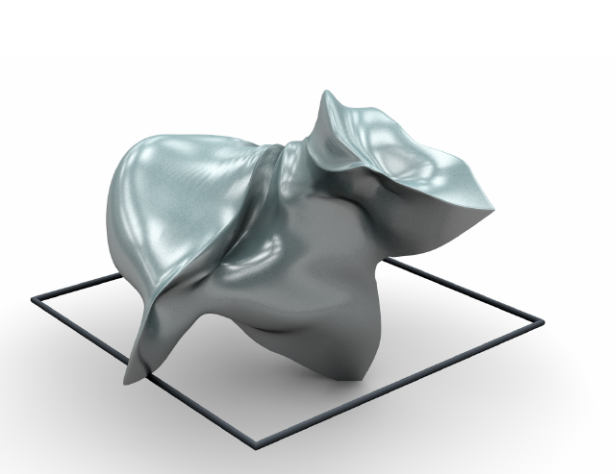
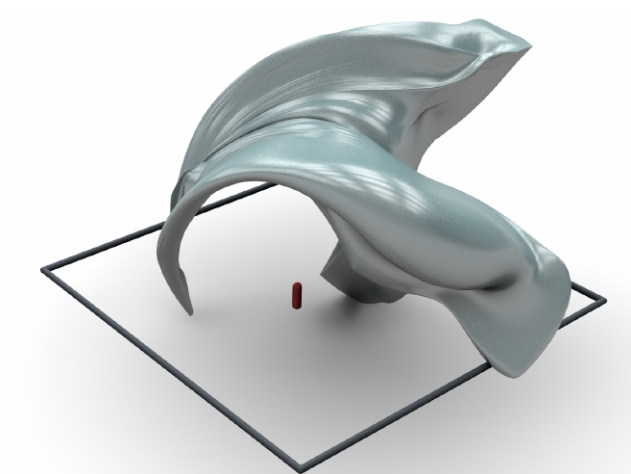
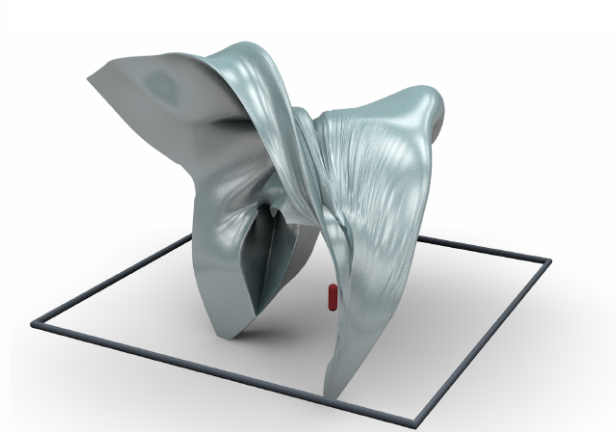
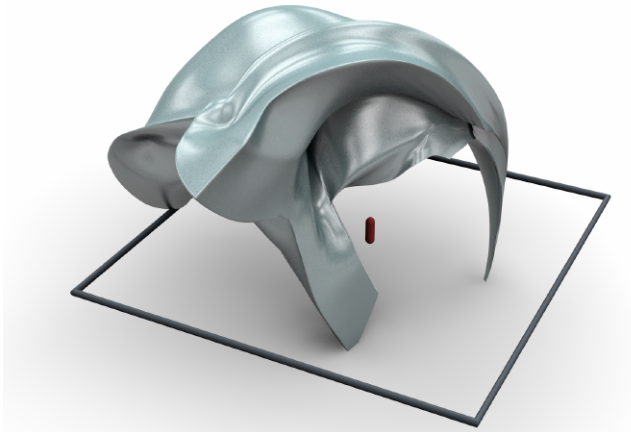
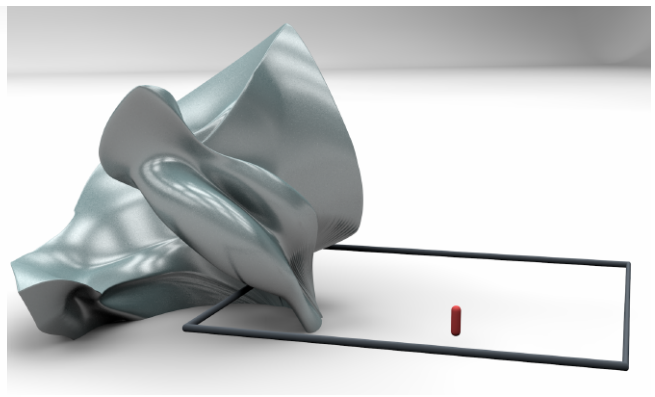
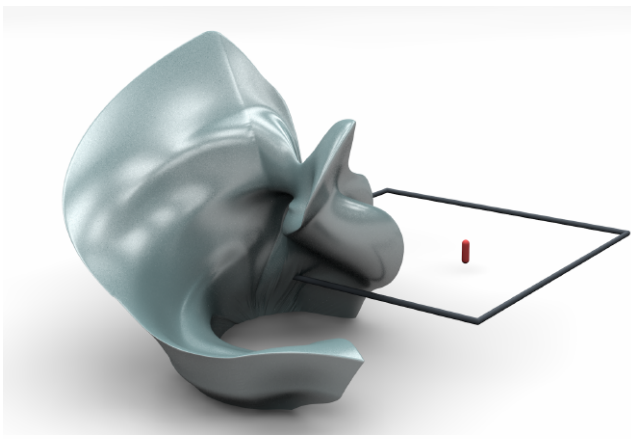
Despite the fact that I have designed a fixed spatialisation for the objects to emerge within a certain space, I was not entirely satisfied with the result, thus I explored the territorialisation boundaries, considering that the listener is enclosed in a square. Here I borrow Gascia Ouzounian’s words to give a more precise explanation: “an underlying desire to territorialise sonic objects, to locate their distinguishing characteristics, and

‘place’ them in such a way that they might be objectively known” (Ouzounian, 2008, p.88). I am fond of the idea of playing with spatial disorientation, as I superficially did previously in *Discrete-Composite*, so I experimented with a range of territorialisation of the sound.

Sometimes, the sound’s location slightly varies (see [BR]: Structure 4), and at other times it varies dramatically (see [BR]: Structure 3 from 1:23 to 2:26). Sometimes both co-occur, provoking uncertainty in the identity and location of the object. Further disorientation is achieved now and then when the sound is multiplied in different zones, so the object is materialised in different areas at the same time (see [BR]: Structure 5, and Structure 6 from 2:08 to 2:27). Finally, and despite wanting to avoid it completely, a sound was given spatial progressions, following its sonic variations in time (see [BR]: Structure 2, from 0:00 to 2:06, Structure 1, from 0:00 to 1:48, and from 2:12 to 3:49).

Movement and sound trajectories were therefore conceived in order to build an (im)material entity inside the sound space. In this case, there was a kind of an unwanted immersion, as the objects were created in a huge square of loudspeakers surrounding the listener; however, I attempted to position the listener alongside the object and not ‘inside the object’. Sound trajectories were designed with a simple and repetitive behaviour, for my aim was to build an identifiable object with variable locations, not an object which travels in the space, or even worse, random drawings. For the same reason, spatial trajectories and movements were generally multiplied, blended, moving extremely fast (see [BR]: Structure 3), and, sometimes, reduced to static points (see [BR]: Structure 5), in order to make a kind of ‘materialisation and dematerialisation’ of the object, and an effect of object locality and non-locality in the sounding space. In *Structures for Wavefield Synthesis*, objects are experienced as unitary entities which change their perspective by means of sound variations, creating a multi-perspectival presence in an ambiguously defined area.

At this point in the emerging reflective process, I questioned myself: following the spatial evolution which had arisen from the piece, where should it be located, then, within the gradient of sculptural distance? Up to now, my answer would be that the object is at times close to the listener, being perceived as is, as well as a ‘presence’. Nevertheless, there are other times where its localisation proves to be confusing, even in a specific area. A concept that helps me understand this duality is Tim Morton’s “hyperobject” discussed in section 5.3.1. I will highlight the main features of hyperobject that metaphorically fit to define what type of object is *Structures for Wavefield Synthesis* regarding its sculptural distance. A hyperobject is ‘non local’: it “can’t be realised in any particular local manifestation” (Morton, 2010, p.130), and, as I mentioned, the objects in this project drift between locality and non-locality. A hyperobject is “phased”: “hyperobjects occupy a bigger dimensional space than other entities” (Morton, 2010, p.130). Objects in this project are substantially ‘bigger’ than the rest of the portfolio, due to the size and extension of the loudspeaker setup. Following these concepts in relation with sculptural distance’s gradient, and inspired by Morton’s hyperobjects, I am confident to call the objects that belong to *Structures for Wavefield Synthesis*, ‘massive objects’.



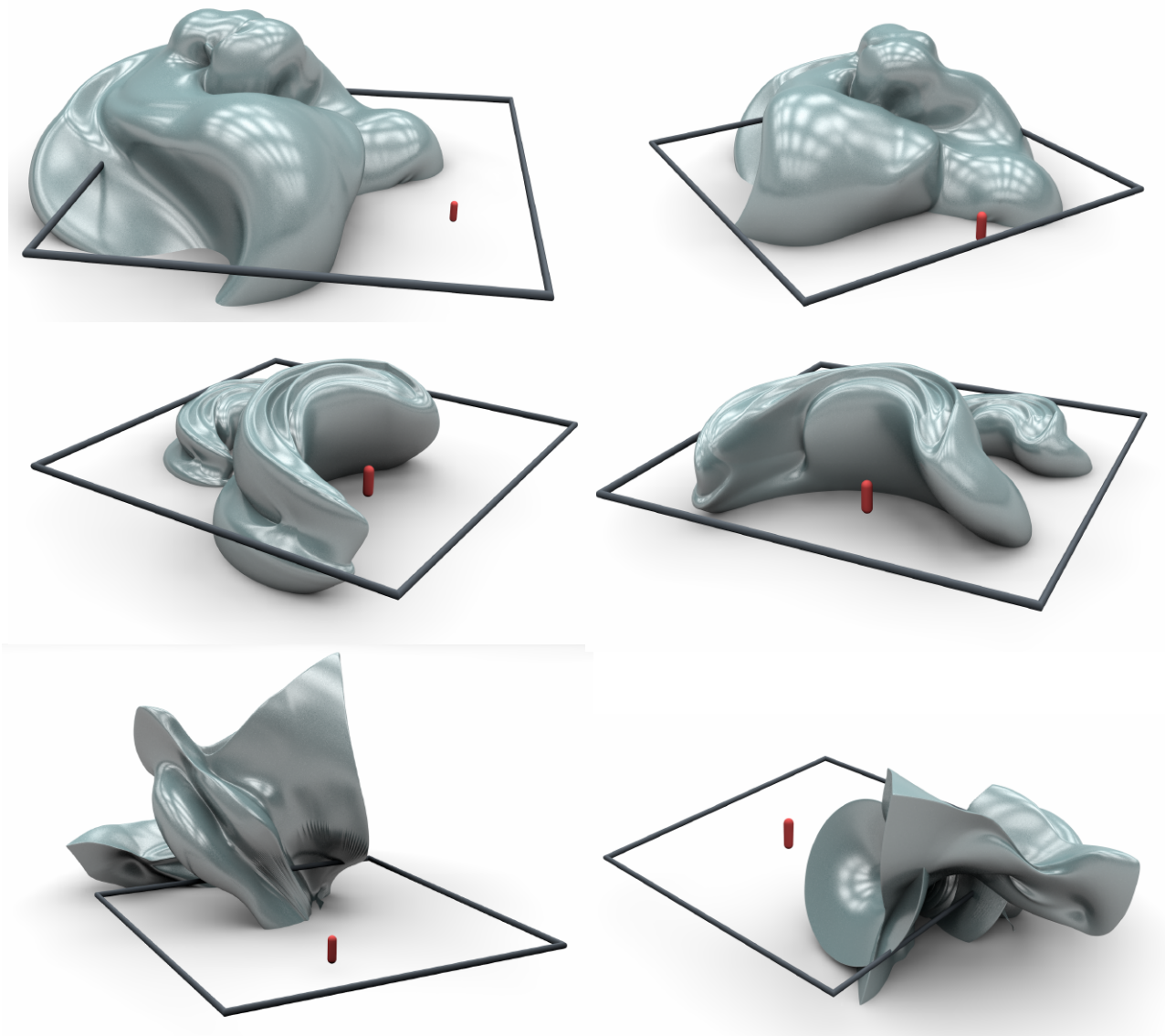


Fig 10. Massive object representation

Thingness. The object and time

While developing the articulations of the sound, I thought it would be interesting to add a new and singular perspective to the objects, always maintaining the original principles of thingness, then clearer in my research. After integrating the human within the fictional ecology of *Synthesis of Unlocated Affections*, I was inspired by the possibility of interpreting the sonic object as having equally experienced the human being, while establishing a relationship with him/her, from which it could have learnt new things. The way in which I designed this metaphor was through the articulations of sound.

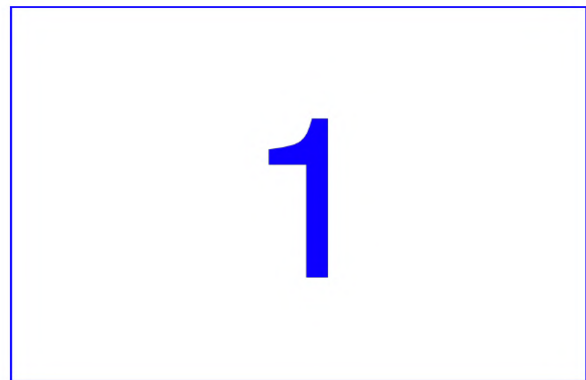
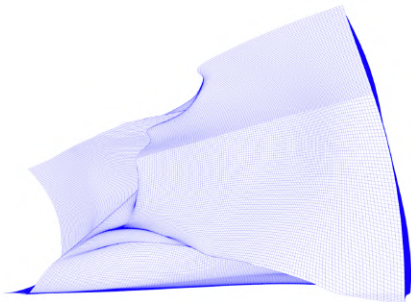
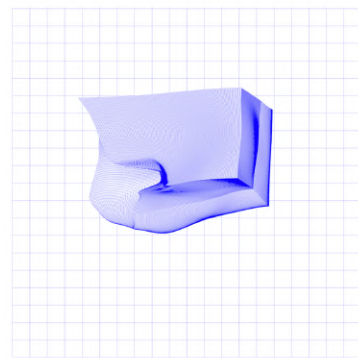
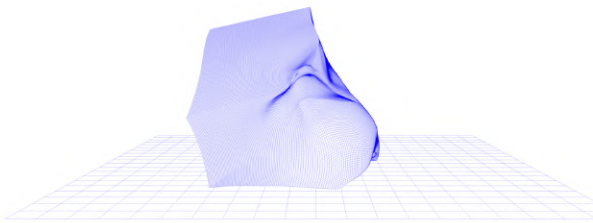
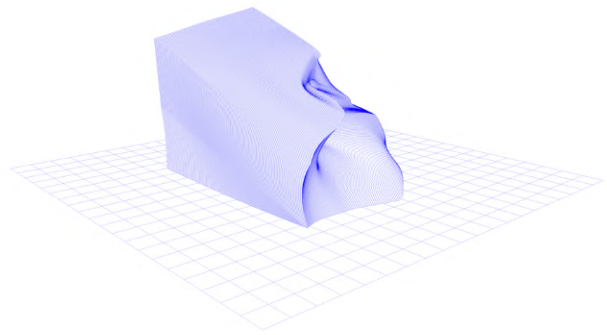
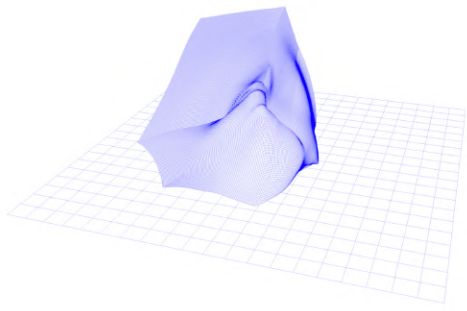
These articulations were inspired by a conjunction of movements of Butoh dance human bodies plus the then confirmed taxonomy presented in section 5.2. I observed that the body movements in that dance were quite mechanical in the sense of tension, friction, extension, repetition, or variation. Therefore, I found Butoh's "tremors, tics, jerks, facial or bodily distortions, falling down, or any other involuntary movements" (Kasai and Parsons,

2001, p.1) easy to translate into sound articulations. These present two similarities in relation to Butoh human bodies: 1) violent contractions and dislocations of body limbs as sound gestures (see [CR]: Structure 1 from 3:10 to 5:20, Structure 2 from 3:19 to 5:14, and Structure 4 from 0:34 to 1:16) and 2) smoothly linked body movements as an articulated sound continuum (see [CR]: Structure 6, and Structure 3 from 1:17 to 2:32).

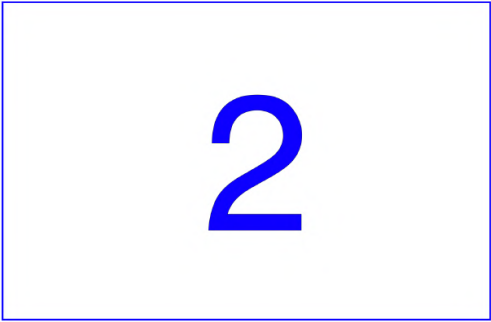
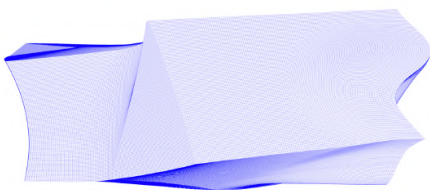
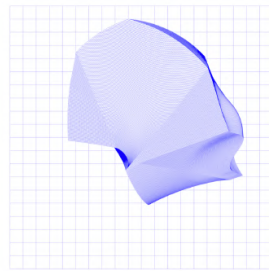
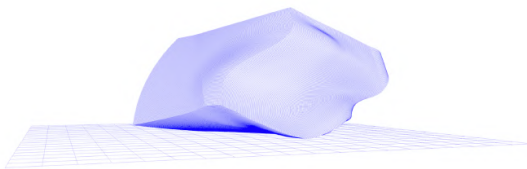
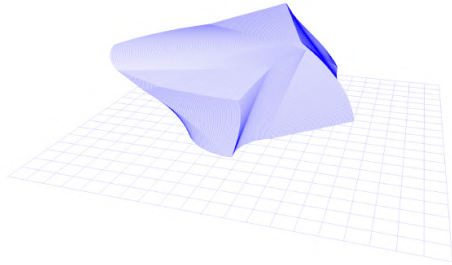
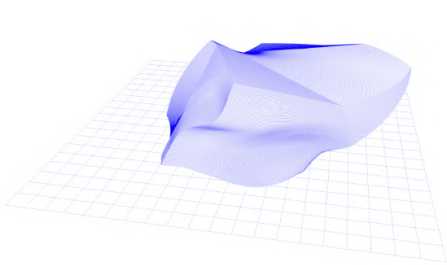
Another direct influence is through the creation of phenomenologically unpleasant and unfamiliar objects: Butoh theorists Kasai and Parsons affirm that Butoh dancers behave like this “intentionally, for the sake of expressing something unsocial, grotesque” (Kasai and Parsons, 2003, p. 3). In my view, both my sonic objects and Butoh dance human objects share a feeling of unfamiliarity, making the audience encounters with the uncanny.

6.4.1. Graphic objects

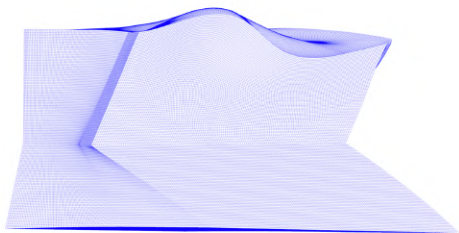
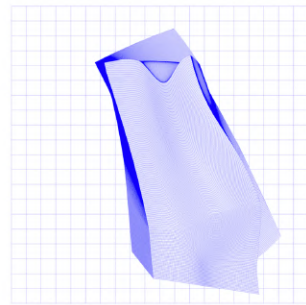
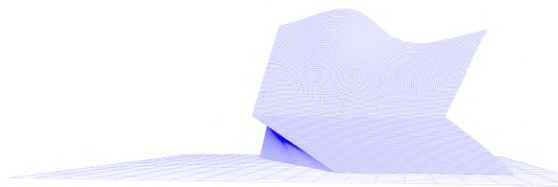
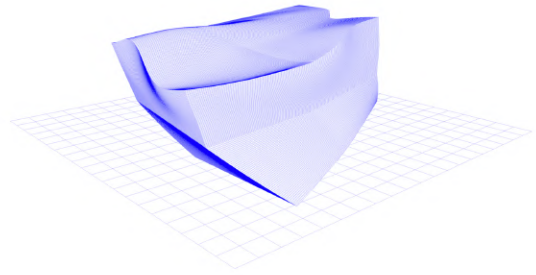
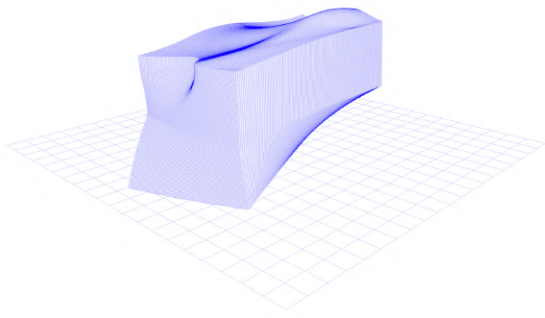
As I was listening to the finished work right after my residency, I realised that I had been talking throughout the thesis about virtual materiality and plasticity from the very beginning. I therefore thought it was essential to make at once a visual, material-yet-virtual, graphic objects. While I was documenting the thesis, I developed for myself a purely artistic, graphic representation of what I imagined *Structures for Wavefield Synthesis*'s objects are. However, these virtual sculptures are not based in any attempt of data visualisation, neither are they conceived to be looked at while listening to the sound. Both sound and graphic objects are based in the same concepts, but resulting, in the end, in different artworks. Eventually, I was afraid to create a distraction for the sound, so I ended abandoning the idea. I include them here in order to help anchor the artistic aims. In the future, I may be tempted to resume the idea of a duality. Notwithstanding, I have not yet found a convincing way to create audio which is in equal dialogue with the visual stimuli yet does not look like a mapping.



Structure 1

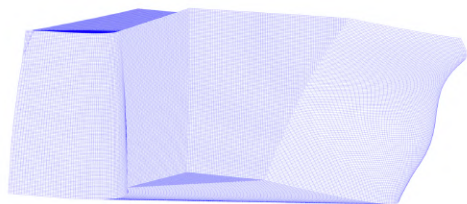
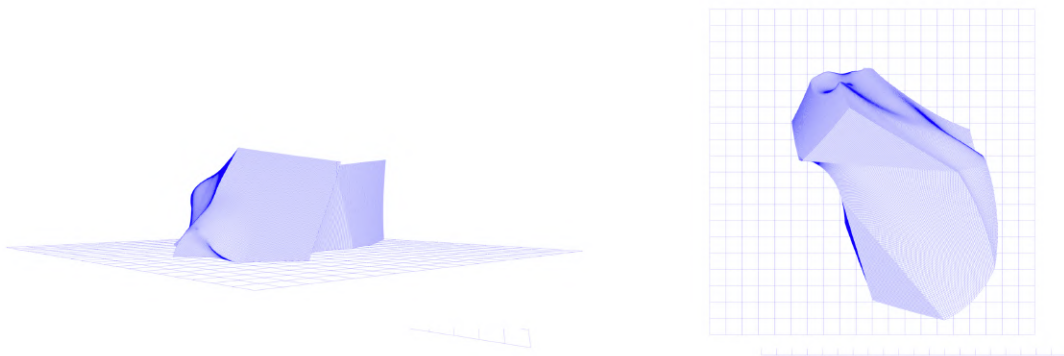
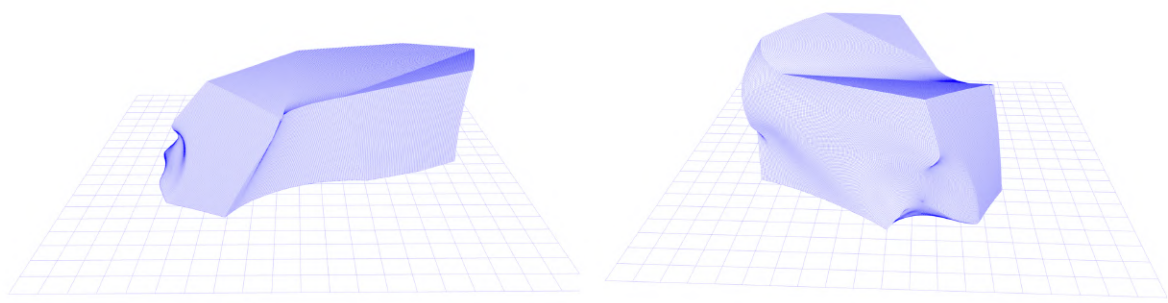


Structure 2

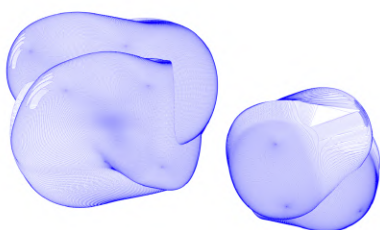
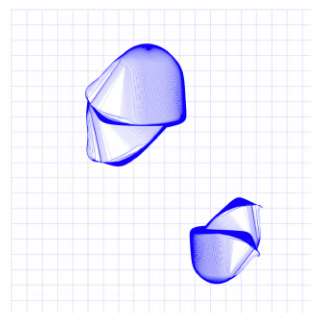
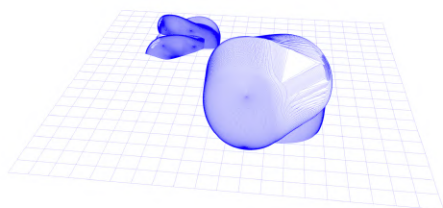
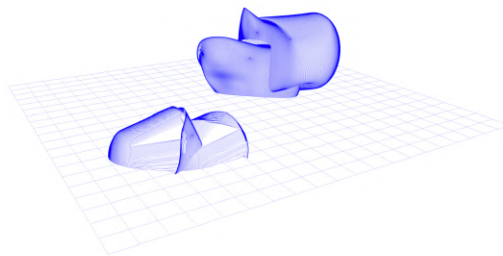
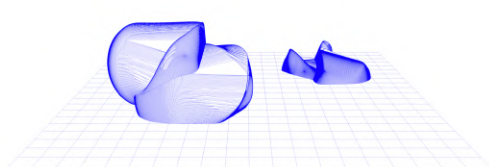


3

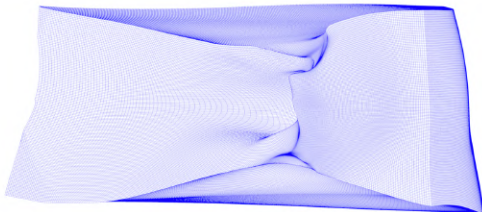
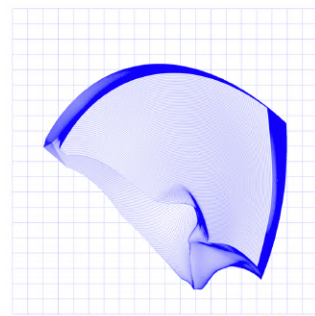
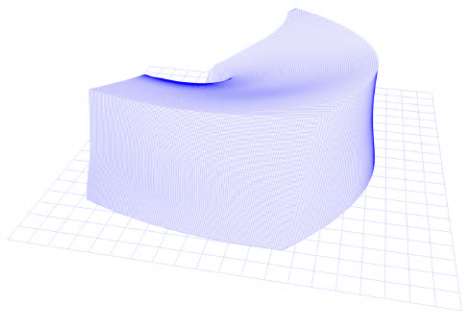
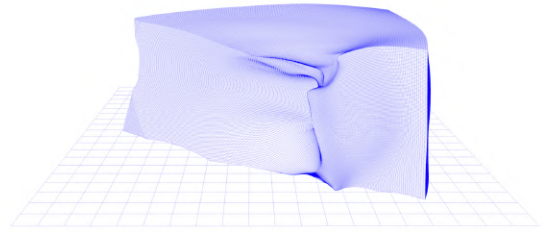
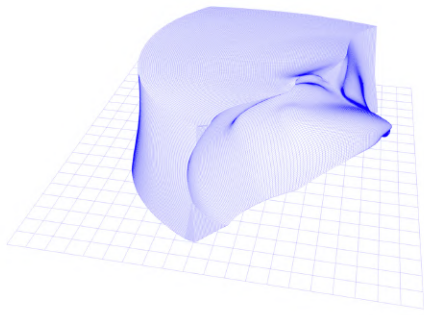
Structure 3



Structure 4



Structure 5



Structure 6

6.5. *Uncertainty on Relations*

Uncertainty on Relations is a sound installation based on seven perspectives of a three-voice multichannel synthetic sound entity in a three-speaker arrangement. This work was created in parallel to *Synthesis of Unlocated Affections*, and after *Structures for Wavefield Synthesis*, and it follows the same ideas of thingness, that by then had crystallise.

After the project was done, I started to consider this installation as an extension of *Synthesis of Unlocated Affections*, one that was exploring more intensely the polyphonic objects. Each object here is composed by three loudspeakers and takes these ideas into consideration:

1. The entity/object is created through multiple variations made by the conjunction of the three loudspeakers together. Each loudspeaker emits one different single object constituted by those variations, after that, the global object emerges from the polyphonic sum of the three voices and perspectives.
2. The objects/entities are built by complex phrases. The listener tends to concatenate those different elements shaping a homogenous entity with the correlation of the micro activities of each loudspeaker. This work explores different object structures and timbre-behaviour perception.
3. The objects have a non-hierarchical development among its relations. The external appearance of the object and its perspectives shows a quasi-static and perceptually repetitive wholeness, reduced to a phrase level.

Each agglomerate contains four different objects: one per loudspeaker, and a global object built by the three. We are able to explain this system of relationships by following these paradoxical non-holistic principles:

- The object cannot be only reduced to its parts. The global object emerges by the polyphonic relationship of the three loudspeakers.
- The object can not be reduced to its totality. The global object is a part of a flux of relationships. Each object is equally important to the global one because, as Graham Harman states about object's ontologies, "what is real is not individual things, but processes, events, dynamism, surface-effects". (Harman 2011)

However, a better explanation can be made by simply taking the Gestalt's 'invariance', 'reification', and 'multistability' concepts.

In relation to thingness and space, I have distributed the polyphony among the different loudspeakers, leaving open the option of isolating the object of each loudspeaker. Within *Synthesis of Unlocated Affections* it is possible to isolate single objects from the rest of the whole multi-speaker ecology. But in *Uncertainty of Relations*, despite the substantial reduction of the amount of loudspeakers, I felt it was complicated to convey the possibility

of isolating each voice, yet it seemed really interesting in terms of thingness. To test my impression I therefore invited different listeners to attend the installation, and they confirmed the difficulties in focusing on only one of the voices and interpreting it as a single object. They tended to connect all sounds and assumed that they constituted a polyphonic global entity. This had the consequences on *Synthesis of Unlocated Affections* that I presented in section 6.3, namely to focus on a single loudspeaker per sonic object.

As we saw in this chapter, I have developed five sound installations which explore thingness in relation to its principles for my portfolio of compositional research. Through them, I have strengthened my approach to the idea of the sonic object in relation with the concepts defined in section 4 and 5. We will see how these ideas ported to other format in the next chapter.



Fig 11. Draft of spatial representation at The University of Huddersfield

7. The object extended to other formats

The last angle of my artistic research is focused on exploring thingness in different scenarios than the installation: I intended to push this concept in more flexible orientations. I extended my practice and my main ideas into three different formats, which include various works within each one:

- The object in an album format: *Not-exhausted about, Synthesis of Unlocated Affections* (album version)
- The object in a performance: *Synthesis of Unlocated Affections* (performance version)
- The object(s) produced as the fruit of an artistic collaboration: *Ogive-Folds* (with Chris Herbert), *SYNSPECIES-Spaceless Latitudes* (with Tadej Droljc)

7.1. The object in album

7.1.1. *Not-exhausted about*

Thingness. The Object and sound itself

Not-exhausted about is an album made of three different pieces, each taking the classic 'acid sound' (*Acid tracks*, Phuture, 1987) as a timbre material. This sound is originally generated by a Roland TB 303 synthesiser, and it is a key sound of the late 1980s acid house and 1990s rave music. Acid as a culture was iconic and has spread towards its own imaginary, including the appropriation of the 'smiley', or in our case, the synthesiser Roland TB 303 (Bull, 1997, p.2).

For this project I started by considering some principles which were a priori opposed to what was previously postulated throughout this research in relation to thingness. One of the main cores of this artistic research is the aim to create non anthropocentric sonic xeno entities (section 4, section 5.1, and 5.2.1); nonetheless, in this work I approached the object from an opposite perspective: I used an extremely recognisable timbre, a sound that has already its own identity, having become a cultural object that is difficult to re-contextualise. This sound is part of the general popular musical culture, yet I have tried to subvert its original meaning and reduced it strictly to an object. I have explored a recontextualisation of the sound and its natural use as part of the 'thingnessification'. This aim of giving a new identity to a sound can be compared with Oswald's plunderphonics (Oswald, 1985), nonetheless, with a strong caveat: I am not using any existing music to subvert it, but corrupting a certain timbre strongly associated with a musical genre.

Despite this sound being almost exclusively used for bass lines, I have used it to create a sonic viscous fluid object by sending algorithmic patterns and control messages via midi,

from Supercollider to a TB-303 clone, Modemachines XoxBox (Nagle, 2010). The resulting sound is malleable and can be easily conceived as plastic sculptural material. I transformed it into a specific presence that is changing over time. I have maintained a certain identity of the timbre, in line with my intention of making perceptible the process of recontextualisation and reidentification.

Thingness. The object and the listener

This process of transformation can be understood in two different ways:

- Recontextualization: scholar Dora A. Hanninen says that “recontextualisation indicates a (listener’s perception of) phenomenal transformation of repetition (of some thing—a musical idea as I shall soon define it) induced by a change in musical context”. It is a strange kind of repetition—better, an estranged repetition, in which repetition doesn’t sound (primarily) like repetition (Hanninen, 2003, p.77)”. In my case, the meaning of decontextualisation would go in the very opposite direction: a variation/progression which most of the times sounds like a repetition or an interrupted repetition.
- Decontextualisation: It occurs when a sound has been given a new meaning and identity, deviating its previously associated aesthetics, timbre, or musical genre.

We can also find three clear examples from my taxonomy of ‘object and the listener’: gluings, clashes and morphing.

During the analysis, I realised that there was some ideas missing in this work without which I would not be able to clarify in detail the impact of the sound in listening. Consequently, I created a new category which complements those mentioned in my taxonomy. This category is only applied for *Not-exhausted about*; therefore, they will not be included in the general list:

- Isolation and variation: I have isolated one type of sound and explored its transformation into a kind of variation that often sounds like a repetition; this I have called ‘redundant variation’. (see NEA1 and NEA2)

Aesthetic distance in *Not-exhausted about* is disconcerting in comparison with the rest of the portfolio's works: timbre and sound’s nature are completely recognisable; however it differs in terms of its behaviour. Despite using an iconic type of sound, I believe that unusual emergent qualities can arise; the way acid sound is treated in these pieces is musically very far from the common use associated with it: I kept a sense of pulse, but far from the traditional danceable structures of acid techno and the like. In my case I broke the symmetry of the pulse, generating bewilderment and provoking an odd sense of expectation.

Thingness. The object in time

In *Not-exhausted about*, as in the aforementioned *initial suppressions*, I explore the limit of non-expectation and the concept of boredom; thus, it does not build on narrative discontinuity that generates surprise in listening. Nonetheless, both of them are constantly mutating through sound variations; this exploration of time makes *Not-exhausted about* a delusive monstrous deformation of the original acid techno, a vivid and mutable plastic object, which avoids perpetual repetition while, on the other hand, dealing with repetition and variation in different degrees.

Degrees of repetition tend to conclude in a sense of gradual development of incomplete cyclic forms; and these cycles give rise to a succession of irregular pulses. Despite all of these activities, there is no dramatic change along the object's surface. Consequently I named it a 'broken-pulse monolith', endowed with nuances in the object's surface. The irregularity of pulses reminds me of some of Feldman's music, as explained by Hanninen: in a sound monolith in which "each repetition has a life of its own, informed by changes of key, texture, and context— including its role and location in the form" (Hanninen, 2003, p. 62). These variations are another example of the already mentioned concept of discontinuity. In *Not-exhausted about*, variations are constrained to create a homogeneous object surface. This surface is generated thanks to the isolation of a single kind of sound, articulated one phrase at time, which evolves slowly and has no motif changes. This creates a phenomenon that could be associated to the Schaeffer's effect of reduced listening through repetition, which happens here after a long time, although there is strictly speaking no real loop at play.

The slow switching of sceneries by the act of repetition and variation could be seen as a form progression and teleological development. *Not-exhausted about* can suggest sometimes, sensations of strange narrative and temporal projection towards a future point. This type of narrative and global wholeness can be considered as a continuum because there is no substantial change; nonetheless, there is in a continuous development. *Not-exhausted about* has some fundamental techniques in common with American minimalism (Steve Reich, Terry Riley, etc) such as the internal processes in the composition, the modulation of parameters, patterning, and the slow changing. Together with *initial suppressions*, this work is also the closest one to Brutalist Architecture, sharing with it compositional principles such as repetition, no ornamentation, divisibility, and the use of very reduced material.

Notwithstanding, I can affirm that the already familiar temporary organisation of *Not-exhausted about*, is still limited to the phrase level, which has been seen in other works of this portfolio, and therefore, is linked to them by the emergence of queer time again. The nuance is that, in the rest of the works, the predominant phrases are formed by different sound layers or polyphonies, but in this piece, phrases are most of the time reduced to a single one, isolated, which presents one sound at time, and it is transformed with no substantial contrast.

Moreover, discontinuity and gradual phrase transformation over the time can be framed by the following entries in my taxonomy: variations (see NEA1 and NEA2).

There are a few other artists who have tackled a rather radical decontextualisation and transformation of rave music, or sounds which belong to neighbour aesthetics related to techno, trance, house, or acid house. These artists are part of the aforementioned new generation of extreme computer musicians, who create their music by applying algorithmic processes to these sounds, and challenging time perception, form, and sound shaping: *Purple Melters* (EVOL, 2015), *Acid in the style of David Tudor* (Hecker, 2009), and *acid no! se* (Haswell, 2011) with the acid bass-line, *Quantum Jelly* (Senni, 2012) with trance's supersaw, and *Multistability* (Fell, 2012) with House Fm chords. *Purple Melters* is probably the most similar example to *Not-exhausted about*, EVOL's record is composed by two pieces based on an extreme isolation, repetition and variation of a single (and a style-standard based sound) acid bass-line. However the difference is that *Not-exhausted about* focuses on abstraction and thingness principles through accumulation, while *Purple Melters* keeps a clear acid house identity due to the dance-oriented melody of the bass line and the type of repetitions.

Besides these artists, *Triadic Memories* (Feldman, 1989) and *For Samuel Beckett* (Feldman, 1987) have been inspiring me to write *Non-exhausted about*. I think this piece has provided a personal vision of Feldman's approach around repetition, micro variation and around a slight change of perspectives in a recurring musical motif. I have used them mostly through a radically different sound world.

7.1.2. *Synthesis of Unlocated Affections* (album version)

Following the installation version of the same title, I extended *Synthesis of Unlocated Affections* to an album-oriented format. This meant that I had to modify the objects for a record-type mode of listening (Stockfelt, 1997). The structure of the album is based on the succession of pieces, or sonic objects, with a certain duration and pseudo-narrative direction for a non-teleological formal thinking. There are two main significant changes that differentiate the installation with the album in relation to 'thingness': the first one is its approach to space, and the second one is the attempt to find a certain compositional meaning or form in relation to the temporal organisation of objects, in other words, keeping thingness and objecthood within a continuous imposed timeline. I have explored a musical form which oscillates in between composed pieces, and an iterative presentation of objects.

I have also incorporated new objects and modified the original ones from the installation, as well as implemented new variations and parameters. In conclusion, this version is more complex and better refined than the installation, in every sense.

Thingness. The object and the listener

Between the installation and the album version, the thingness in sound does not change: only the way sounds are related to each other are changed, to adapt to the latter's active sitting listening mode. A caveat: I do not think that I expect the sound-listening relationship is different in any way; however, the use of various categories from the taxonomy is more frenetic, mixed, or superimposed. The different categories of coexistence are used in many ways: they can be juxtaposed in short time periods; they can be overlapped, or can vary from one another. The curious reader can hear within the piece examples of clashes, gluings, cooperation/polyphony, and morphing.

My aim with this work was to create what I would like to find in an album of music with these characteristics: I aim for an album-form to have objects slightly more active because they are subjected to an imposed timeline. Even more important is my desire for the objects to emerge from the loudspeaker creating the illusion of a presence inside the listener's room: I therefore seek for rather dry mixes, not simulating another space and instead use the listening room's own acoustic as the final location. I aspire to have an album which could act as a door to a different world of entities which would function as a portal for the 'secret world of objects'. I wanted to make an album that could compel the listener to have a vigilant and slightly distressing listening experience. My goal is to see how a vivid entity tries to make a song under its own terms.

Thingness. The object in time

Needless to say, in this version, objects do not create an ecology sounding simultaneously within a space, but rather they have been displayed over thirty minutes, and they are separated by tracks. Most of the track contain a single object, but in some cases, more than one (SUA1, SUA3, SUA5). This simple fact already modifies the whole perspective of the thingness in relation to time.

I see the installation format as a totally different type of listening from the one which is experienced as a series of pieces with a 'beginning' and an 'end'. Most of the traditional installation practices refuses any musical form, as Ros Brandt stated when talking about sound installation: "the temporal aspect of sound installation distinguishes it from other audible genres because the works are intentionally installed for much longer durations [...] sound installations do not necessarily remain the same over the period of installation, be it a few days, weeks or months" (Brandt, 2009). I have kept the essential characteristic of thingness, nevertheless, yet the necessity I felt of endowing the objects with a certain compositional orientation force the thingness to be more adaptable.

In relation with the already familiar taxonomy of time, we can find the following categories: cancelation, renovation, and variations.

Unlike in the installation version, I have approached perspectives, variations, and articulations which often act as agents of change, or as anticipations that generate tensions between cause-effect and/or action-reaction; these processes sometimes cause the object to become a temporal event with a slight effect of narrative progression, partially abandoning its objecthood for a few seconds (for instance, see SUA2 from 1:12 to 1:17, and from 2:51 to 3:00, SUA5 from 0:46 to 0:56, SUA8 from 0:36 to 0:47, from 1:00 to 1:10, from 1:38 to 1:50, and SUA9 from 0:33 to 0:46). I am aware, that an object transformed into an event with a temporal development can easily jeopardise thingness in relation to the experience of the sonic object, and deprive the object of its nature of specific 'presence' or vivid entity. This phenomenon became a fundamental consequence of the process of transforming the installation object into the album object, but was fought as much as possible.

With the exception of some pieces (SUA10, SUA7, and SUA6), the whole album is characterised by a hectic form guided by two different scenarios: one entails frenetic or slow changes of perspectives of the same object. (see SUA1 from 0:00 to 0:54, SUA8, SUA5, SUA11, and SUA6), the other contains two objects swapping within the same piece (see SUA1, SUA3, and SUA5).

This hectic form aids me to preserve some disorientation in the listening experience, and thus, I hope to avoid the normalisation and standardisation of the object. Moreover, the formal articulations of sonic objects are limited to phrases and they are still quite static when they are seen from an 'acousmatic aesthetics' point of view: there are neither 'whoosh-bangs', nor a gestural story-telling. The hectic form is made by object 'straight cuts' and object confrontation, and not in any teleological manner. I deal with time but not in a narrative way. I am, in fact, trying to hide the timeline.

Thingness. The object in space

In this version, the treatment of the space has been completely redesigned. The objects live within the stereo field of a virtual space. Working with virtual spaces has allowed me to locate and delocalise objects in different spaces with variable dimensions, and following this way, to enhance objecthood in a virtual space. In some of the pieces I have implemented a close perspective to *Structures for Wavefield Synthesis*, since I have used a virtualisation of the Wavefield Synthesis system reduced to the stereo field, what will generate a subtle space plurality (see two contrasting space: space one in SUA5 from 1:08 to 1:30, and space 2 in SUA3 from 1:06 to 2:23).

However, in most of the pieces there are no resonant or reverberant spaces: I designed them subtle enough to enhance dimensionality and dryness of the objects. My intention, as discussed above, is still to remove the loudspeaker and make the object emerge from the virtuality outwards, without externalising the image at all. I am not using the mix to make an object in a room; I am using the listener's room system as the final location of the object which makes it present, invasive and paradoxical, and stays in line with the aims of this artistic research.

I think I have succeed in making an album which contains pieces with a more heterogeneous nature than the installation objects; the objects are likewise carefully subjected to several and different audio post production processes as editing, mixing, and overdubbing. Objects here contain more types of variations and perspectives, unfolded in time, than the installation version; and besides that, different objects can emerge from the same piece.

This has been the first time that I have adapted my concerns to other formats. I was concerned to create overcomposed pieces which would lead to leaving behind the thingness, or otherwise, not being able to adapt the objects to a context more related with a 'sitting listening'. Nevertheless and looking back to the process, I have successfully managed to produce the desired point between the object and the composition. The album version has allowed me to meticulously craft the objects details, and give them the best result which was not possible to achieve, for conceptual reasons, in the installation version.

7.2. Object in live performance

7.2.1. *Synthesis of Unlocated Affections* (performance version)

The question of translating my installation works to other listening modes was further explored in a gig scenario. I will only emphasise what is different from the main concepts, specifically, thingness for the listening perspective.

This performance was designed as a succession in time of several independent objects, similar to the album format, although, like in the installation version, objects are not articulated as 'composed in the studio', nor are any new objects created: unlike the album version, the performance objects are quite closer to the installation ones in terms of structure and temporal development.

I want the listener to misunderstand the object completely: I do not want to exhaust the possibilities of the object, as to leave its comprehension incomplete. In this performance, each object is displayed approximately during two minutes, avoiding an entire understanding of them, as well as the feared homogenisation of the sonic space. Therefore, they are simply introduced to the audience one at a time. The listener does not experience a full grasp of the sound as they do not have enough time to internalise the complexity of what he/she is listening to. Another essential characteristic of this performance is that each object is presented only once, and, consequently the audience cannot revisit them to solidify their grasp: the objects remain as alien as they appeared to be in the first place. The fact that objects are being displayed only once, and for a very



Fig 12. *Synthesis of Unlocated Affections* at Sonikas, picture by Adolfo García



Fig 13. *Synthesis of Unlocated Affections* at Transmediale/CTM Vorspiel, picture by Vred

short time, is suggesting an object-oriented listening, an enumeration. Likewise, the programme note implies the same, and the strong identity of each object confronting against the others and, of course, in a certain space, helps to establish a clear segregation.

Both from a record and in a concert, the listener usually expects a certain sense of narrative or a directional sense in time. In order to suggest this object-oriented listening and eluding a narrative throughout the performance, I decided to present the objects with no transition or connection between them. I simply compile the code and then stop it when I feel it appropriate, within a 2 minutes mark. Moreover, when available, I have positioned the object in contrasting locations for each of them, again with no articulation of space within an object. This time the sound is executed in real time with neither editing, nor overdubs. In summary, the iterative structure of the performance can be simplified to 'object-A, silence, object-B, silence...'.

For the first concerts I played this piece at, I made an introduction for each object in which a female voice-over described abstractly the object. This was presented in a slightly similar format to *Composition 3.0* (Fell, 2011), or *Inevitable Music* (Roux, 2014). After a few performances using this method (Sonikas 2016, Electric Spring Festival 2017), I discovered that this voice induced a sense of continuity in the gig: it had built a motif that was being repeated, and thus it made it a narrative performance. As a result, I decided to remove the voices and use silences instead (CTM/Transmediale Vorspiel, 2017). I then discovered that I have to be truthfully cautious with silence lengths because if I make it too short, it could be experienced as a tension between two objects, and therefore, there would be again an element wrongly perceived as narrative, or maybe, perceived as an action (previous object) - reaction (posterior object) link.

One more element was different in the concert setting: a concern about the gesture of the composer and how he/she participates in the performance. In all the works I have presented thus far, the author is not revealed as the performing agent: on the contrary, it is as if there were no performing agent. Moreover, we can affirm the existence of a complete remote surrogacy in the sound gesture (Smalley) as the most human presence in these other formats. I will not make a historical review of musical gesture, or ask questions about action-no action in sound performance, since my research does not follow any interests in this matter, but I will point out important aspects that directly impact my concerns. There is a recurrent trend within computer music performance of adapting in some way the traditional instrumental gesture (Smalley's second order surrogacy) to the computer generated sound. This seems to me as a way to convert the computer into a playable instrument, in order to make the audience aware of human agency, either through the computer itself, controllers, microcomputers, sensors, tactile surfaces, or a great new range of technological/mechanical devices.

My approach to performance, in line with my desire to remove the anthropocentric view of my music, is completely anti-gesture surrogate: I try to eliminate every trace of gesture or interaction with the computer. I understand sound as an articulated object in itself;

consequently, the sound must possess all traces of vividness and gestural existence in itself, for itself. My aim is to avoid the role of the performing gesture as a visual stimulus, which derives the attention from what really matters: the artist is not the performing objects, the objects exist by themselves. I want to give autonomy and non-anthropocentric orientation to sonic objects and, for this, my actions over them must remain completely unnoticed, to the point of being apparently non-existent.

For me, the liveness of a performance must be represented by the sound and not by the agent behind it. This agent, whether a composer or performer, is merely a tool in which objects can manifest themselves. In fact, that is the reason why I conceive my role in a sound performance as the same as one of a loudspeaker: as a neutral, transparent, and forgettable channel.

To conclude this section, I could say that I think that objects in the performance format do not confront only against other objects: the form has a lack of complexity, making the object, however, more brutal and unadorned. Within the performance, the listener is not able to decode completely the sonic objects, due to their duration, but segregation is helped by spacial separation and clear cuts. Nevertheless, I chose to do so intentionally as I thought it this was probably the most successful format to maintain the estrangement effect and the perception of the object as a xeno entity.

7.3. Object in collaboration

A final way with which I wanted to challenge my ideas was by working with other artists, beyond the work of *indivisible streams* (section 6.3) as that project could be more accurately be consisted as five solo works sharing a similar idea, and it cannot be considered a real collaboration. I have always found exciting the opportunity to collaborate with other artists. Often, a creative process with someone can lead to conflicts, dead ends, incomplete projects, or an unsuccessful result. Even this outcome can be fruitful, as long as one is able to look beyond the immediate irritant. The flow of ideas and reflections between two active minds always generates questions and reveals new horizons regardless of how fruitful will be the concrete artistic result.

During my PhD period, I have completed two works in full collaboration with different artists, considering them, at first, as a way to explore other scenarios for the concepts defined in this thesis. However, this experience has taken me to a much deeper degree: to overcome my obsession with the object, while learning to adapt it to other contexts.

In both collaborations, I have been confronted to a number of aesthetics and methods of composition which I am not very familiar with, and this has been very challenging. Both projects have developed a tendency to dramatise the objects, consequently nearly mutating the thingness into temporal, and somehow, narrative object-events. Both collaborations were thought as punctual works, nevertheless, we have succeeded in creating a certain aesthetic statement; thus, the two have turned into longer-term projects with the intention of developing future works.

7.3.1. SYNSPECIES - *Spaceless Latitudes* (with Tadej Droljc)

SYNSPECIES is an audiovisual project created by Tadej Droljc and myself during winter 2017. Tadej and I have been students at the University of Huddersfield, both doing our PhD at CeReNeM. SYNSPECIES emerged after several long discussions and conceptual drifts regarding virtual audiovisual objects, digital art paradigms, and narrative exploration. From my point of view, the most stimulating part of this collaboration comes from the fact that we both have already worked around the idea of the object, but from totally different perspectives. This common obsession made us leave our individual comfort zones and explore new territories. Based on these dichotomies, dialogues, and conflicts, we gave birth to the bases of the language which would frame SYNSPECIES.

This project explores the states of bewilderment, the visceral emotions, the uncontrollable, and the processes that lead the experience towards an overwhelming sublime. This experience has been accomplished through the immersive contemplation of an uncanny universe made of virtual audiovisual entities in perpetual metamorphosis. The development of this project, despite containing technical complexities and a surgical crafting, is guided primarily by our intuitions and dialogue. We have fled from any theory, technology vindication, or gimmicks, which we feel are commonly associated with new media art.

We like to define SYNSPECIES poetically as a project inspired by virtual ecologies – unstable morphological spaces that emerge from an interaction of co-existing unrelated entities with the void. This a series of multi-scaled audiovisual objects that are cross-pollinating, mutating, and fighting for their space and existence. They co-create a world of (un)real physicality that is constantly kneaded by violent forces. Their existence appears to us as fractured narratives in the perceptual phenomena that resemble a chain of synchronised chaos. The vivid abstract architectures of SYNSPECIES fluctuate in an ambiguous pulsating time, hybridising and shaping new spaces, confined inside a perpetual disintegration process.

The duo's first work feeds on tangles made by computer-based code and analogue signals. The sounds are originated from the Stockholm's EMS Buchla and Serge modular systems, algorithmic composition and computer-generated synthesis, and deconstructed instrumentation, while the visual elements are based on 3D geometry synthesis. Although we both have experience in the audiovisual field, for the moment we have divided the tasks: I am developing the sound and Tadej, the visuals. While the practical work is divided, the creative process is completely unified, and we both take the decisions together, in music and in image.

Given the young age of the project and the fact that we were commissioned straight away, we first created an audiovisual installation called *Spaceless Latitudes*. The installation was premiered at the LEV Festival (Spain), it was shortlisted at the Lumen Prize (England), and won the EDIGMA Semibreve Award in 2018 (Portugal). The commissioning festival has now commissioned this duo again and we are currently working on an AV performance that will be premiered in 2019.

Spaceless Latitudes is based on three HD screens and 4.0 multichannel sound. This installation is developed by a hierarchical process divided into two parts: first part includes the sound composition, and the second integrates the visual composition. Although sound and image do not have a real-time bidirectional relationship, where both are produced simultaneously or interlaced: *Spaceless Latitudes* is characterised by a strong coexistence and a phenomenological audiovisual tangle. We seek to remove any perceptual hierarchy, making sound and image coexist by portraying the entities and the audiovisual spaces of SYNSPECIES. It is possible to find in other artists related approaches: *5 horizons* (Kurokawa, 2011), *Seism* (Kolgen, 2014), or *Nimbis* (Lemercier, 2014). However, our work differs substantially from these ones: the main difference is the aesthetic output given by the fact that we are a duo, and since we have distinctive approaches and backgrounds, our joint work point in its own hybrid direction.

As a duo, we have had to deal with certain paradigms and usual aspects linked with new media arts. Commonly in the current practice of non-representational audiovisual digital art, both in performance and installation, the relationship between sound and image usually occurs in two ways:

1. A bidirectional relationship where sound and image are generated at the same time and affecting each other. Generally it is created by a single artist, for instance *Oscillating Continuum* (Kurokawa, 2014), *Unfold* (Kurokawa, 2016).
2. A collaborative work, like in our case, although usually a sound artist creates the material a priori, and then another artist visualises the music, or vice versa.

It often happens, in this latter subservient scenario, that the sound artist creates the audio with a purely musical intentionality, and the subsequent audiovisual contract (Chion, 1994, p.7) is often poor, lacking 'organicity' and revealing an unfruitful hierarchy. In that case, the work can become predictable and/or the sound-image could be perceived as unrelated, generating a certain disconnection and artificiality in the audiovisual tangle. This does not mean that synchronicity is mandatory, although, in my view, a dialogue that permits a type of relationship which is certainly needed if we pretend to join both languages into one. In order to avoid the pitfalls of this scenario, we aimed for a 'phenomenological bidirectionality' and from there the 'audiovisual contract' (Chion) emerges automatically.

It was the first time that I explored a visually-guided sound creation. I called this process a 'visuocentric composition': a sound – made in advance – gives life to the image, but the relationship between them must appear unified, as if both parties would share the same

origin and process, and not only points of synchrony or an unilateral adaptation. This visuocentric composition is essentially the act of composing taking into account an imagined/nonexistent vivid visual object, what gets shaped in time through different spaces. Sound must represent in advance a visual object suffering an irregular metamorphosis, space and perspective swifts, distinguishable distributions of intensity and expectations within the narrative. In *Spaceless Latitudes*, I work with changes in object's perspectives in the same way as within the rest of this portfolio but, this time, perspectives and spaces are linked with an imagined moving image and the virtual space-time, in which the objects live.

This relationship of distance and space could be explained through the lens of my thingness 'sculptural distance', even if they are not truly purely sonic objects, and therefore will need other vocabulary. Like in the sculptural distance continuum, there is a gradient of perspectives and intensities between opposite poles. To clearly demonstrate this, the following two polarised examples are provided from *Spaceless Latitudes*:

- A close-up shot (comparable with thingness's specific objects): the sound makes a 'zoom in' into an object (see *Spaceless Latitudes* from 3:16 to 4:15). The sound becomes material, simulating the plasticity, contractions and articulations of an object. Within this materiality, it is possible to recognise a certain thingness, but with a dramatic projection of the object in time. Articulations create micro-build-ups, local climaxes, and teleological tensions.
- A long shot (comparable with thingness's environmental objects): the perspective moves away and the sound portrays a spatio-temporal situation from a more open plane. In these moments not only is the object represented, but also the environment in which the object exists, with a sort of cold dramaturgy reminding me of a solar eclipse in a landscape. Here, the sound is much less specific. (see *Spaceless Latitudes* from 5:19 to 6:28)

Perception of time in the image is generated through sound, obtaining a 'temporal animation of the image' (Chion, 1994, p.13). Audiovisual micro-rhythms are generated by the use of unpredictability, gestures, and expectation (see *Spaceless Latitudes* from 0:00 to 0:32, from 4:00 to 4:15, and from 2:27 to 2:40). All these processes have been extensively discussed by Chion in his book *Audio-Vision* and we have used some of them during certain parts of this process.

In the meso form, all processes, scenarios, situations, rhythms and tensions, or changes of the overall discourse, are previously 'visuocentrically' conceived and structured, and materialised in sound. I have created a kind of intuitive mental graphic score where certain bodies mutate within an elastic timeline. This fact makes some of the points of synchronisation (Chion, 1994, p.15) really gestural, as the music is continually mutating. There are of course a few audiovisual counterpoints (Chion, 1994, p.36) (see *Spaceless Latitudes* from 4:18 to 4:44), but this does not break the tangle of the audiovisual relationship. Audiovisual narrative of *Spaceless Latitudes* is knitted through non-uniform

temporal events, disorienting build-ups and climaxes, drone monoliths, and unpredictable tensions; all of these, framed in maximal aesthetics, handled by the dramatisation of noise objects.



Fig 14. *Spaceless Latitudes* at LEV Festival, picture by Piru de La Puente

On the large compositional scale, the installation is guided by a particular type of macro form, one which I have implemented for a second time, but this time in a completely different context: I resorted to a hectic form similar to the one I used in the album version of *Synthesis of Unlocated Affections*. In this latter piece, the hectic form arises from the result of thingness's transformation across format changes: from installation to performance to album. Now, with *Spaceless Latitudes*, we return to installation again, keeping the articulated 'album form': I adapted the installation piece to a performance piece, to album piece, and to installation again, and we are currently working in the performance version of this project. As it seems, this will be a cyclic process in a perpetual transformation. This process assisted me to solidify my thoughts and practice around the portability and flexibility of the objects and their perception.



Fig 15. *Spaceless Latitudes* at LUZA Festival, picture by Jorge Leal

7.3.2. Ogive - *Folds* (with Chris Herbert)

I met Chris Herbert in Birmingham at the end of 2014 in Soundkitchen Series#4, where we both participated. I knew his work from an album he had released in Kranky (*Mezzotint*, 2006) a few years before. A couple of days later, after some email exchange, we decided to start a project that we called Ogive. Ogive's album debut *Folds* was released in 2017 in the renowned Australian label Room40⁹.

Ogive is an exploration of intermeshing and contrasting approaches to sound and music. We found a shared interest in creating unfamiliar landscapes of texture and harmony. Encouraging each other to drill even deeper into the material content of our sound, *Folds* was driven by a shared aesthetic desire of working beyond the bounds of our individual sonic interests. We sent each other all types of material. We both performed processes on each other's sounds as a material exchange and sound collaging.

This project rather focuses on the beauty of imperfections and gestural sound accidents, in the sense that a significant part of sound sources consists of residual material from recordings which have subsequently been subjected to a chain of processes. The work dwells on spaces of vast open sound fields, in which we aimed to bring the aesthetic distance to a strictly emotional level. In my opinion, there is no trace of strangeness or uncanny encounters, and it is undoubtedly the most 'musical' work of all those contained

⁹ <http://room40.org/>

in the portfolio. The listener has total control of their experience of the work, since he/she can immerse him/herself in the pieces, can enjoy it and experience sensations such as nostalgia, memories, imagination, or associate them with spaces or personal situations. All these aspects reduces to the minimum the aesthetic distance between the work and the listener.



Fig 16. *Ogive-Folds* [Room40] - cover art by Esstro9

Of all the works which complete the research, *Folds* is unquestionably the furthest from thingness; but it is equally relevant, since it helped me to solidify concepts and discover new techniques of composition which departs from my common practice. These pieces have slowly crystallised, rooted in methods such as generative music, algorithmic processes, processed and resynthesised found sounds, and extreme sound synthesis. Ogive's sound world synthesises small sound particles, which create complex behaviours, while constructing both active and static microstructures. The results are dense, but minimal; intense, but extremely subtle. These compendium of different musical and aesthetic characteristics makes *Folds* a personal and new perspective of an amalgam of influences, from the detailed and fractured textures of *Init Ding* (Microstoria, 1995), to the hidden rhythms from *Anima* (Delay, 2001), via the harmonic continua from

Ravedeath 1972 (Hecker, 2012), and *Kiri No Oto* (English, 2008). The music is an endless shifting correspondence between laminar plateaus, full range immersive monoliths, subtle climaxes, and surface details. We could also think of its form of object as a monolith; however, I cannot consider it a success on the grounds of the parameters described in section 5.

Reflecting a posteriori on the process of these two collaborative projects, I have discovered how to adapt my ideas of thingness into other musical aesthetics. It had been a long time since my last collaborative project, and working alongside two totally different artists I respect has helped me to improve my ability to cope with and be enriched by others' ideas. Especially with SYNSPECIES, I have learned how to combine and consolidate my approaches and artistic concerns in a single collaborative project.

7.4. Dismissed works

7.4.1. *Overgradients*

This work has been dismissed from the portfolio due to its failure regarding thingness. I have considered it, nonetheless, an important part of the creative process as a collection of études of the main works. *Overgradients* was composed as an album between *initial suppressions* and *Synthesis of Unlocated Affections* and it attempts to find a physicality and different states of sound materiality.

Like other works, *Overgradients* explores sound in time as a malleable material. This work also examine sound as a surface, an autonomous and discrete particle through algorithmic behaviours and generative patterns. The work is conceived as a series of computer-generated pieces, consisting of repetition, variation, and time superimpositions in a minimalistic approach to sound. I was certainly inspired when I composed this work by the aseptic and hyper minimalistic approach to electronic sound of *Incidence* (Chartier, 2006) and *Silence Resounding* (Yui, 2003).

The whole work is based in three different approaches regarding the behaviour of the sound entities in time:

Fluctuation: the object is based in algorithmic patterns, and it acquires ambiguous temporal extensions through repetition, superimposition and variation. By the accumulation of these undetermined superimpositions and variations, a temporal fluctuation of events is created. This fluctuation has not any teleological development being a road to nowhere. It is a sort of misshaped 'variation' from my taxonomy (see *Overgradient_g*)

Surface: the object is based on static behaviour and subtle articulations. Sonic objects are sustained in time as a photograph, as a solid colour. This could be defined as a kind of wholeness. There is no major gestures or unexpected changes. There are not sudden alterations in the sound. Despite of this stasis, the objects have a multitude of morphological variations and generative micro activities within the wholeness. This makes it an ambiguous state between cancelation and renovation. (see Overgradient_r, and Overgradient_y)

Malleability: the object is based on generative processes that come from a single sound particle. This particle acquires complex morphologies, which explores the contraction and dilation of the sound, tensions and narrative ruptures, going from sustained tones to particular objects. It is therefore overly variable and the object loses its identity (see Overgradient_s, Overgradient_t, Overgradient_v, and Overgradient_e)

Overgradients is a failure on the thesis design criteria and was dismissed because:

- The sonic object was wrongly treated as a pure temporal event, as a measurable basic unit of musical structure according to Curtis Road's sound objects. (Roads, 2015). And as I explained in the Thingness sections, an object for me is not a segment of sound, nor a temporal unit;
- There is not enough materiality to give the sound a sculptural presence;
- Form is not reduced to basic levels while sound organisation remains quite musical under typical acousmatic criteria;
- There is a strong experience of musical gestures and no experience of the objects in themselves, due to the lack of aesthetic distance and 'alieness'.

8. Conclusion

The submitted portfolio has explored many perspectives on my artistic practices in relation to a personal point of view on an xeno-oriented music composition. At the end of the process, I feel I have established a strong statement about what I am looking for, and how I can implement it in different artistic scenarios. Certainly, there are some works that have not been satisfactory, but with all of them I could create a chain which led me to achieve the final, more mature self-reflection. This progression curve confirms to me that all the works are related to each other, and that I could not have reached my most successful and synthetic series, *Synthesis of Unlocated Affections*, without all of them. I hope this commentary highlighted how this progression has been coherent and fruitful, that each finished piece was pointing at the next step, and how I should face the next work in relation to the proposed concepts. In hindsight, I think that all parts of the process have had a successful outcome to some extent.

Thingness, as described in section 5 from concepts from section 4, has been almost completely achieved in *Synthesis of Unlocated Affections*, in different ways in every format. It is also quite true of *Uncertainty on relations*, *Structures for Wavefield Synthesis* and *Not exhausted about*. I hope that my commentaries have adequately clarified the reasons for which I believe in such a success.

The less successful work however, have been *Discrete-composite*, due its nature as an immaterial architecture, rather than a pure object. Nevertheless, it seems to be an organic and consequent progression in thingness and sculptural distance towards the successful works. Thanks to this, I could understand what I was looking for in the different perspectives on thingness, mostly regarding space and the distance with the listener: it allowed to crystallise my thoughts.

One of the most fascinating aspects of this research for me has been the inverted relationship between the evolution of both sculptural distance and aesthetic distance, i.e. the distancing of space vs. distancing of experience and aesthetics. Both distances have changed progressively and concurrently from the first work to the last: starting from the first work, sculptural distance has been decreasing and aesthetic distance has been increasing.

On the one hand, the evolution of the sculptural distance has been reduced gradually, since the distancing of space has become more concrete: sound in the first work, *Discrete-composite*, is developed within an immersive space of loudspeakers, where sound travels among them. In the latest work, *Synthesis of Unlocated Affections*, it is developed as a fictional ecology of concrete objects, and the sonic object is reduced to a specific object in a single loudspeaker that coexists in a non-environmental and passive way with the listener.

On the other hand, the aesthetic distance, determined by the degrees of uncanniness and the 'xeno-nature' of the sonic object and its behaviour on time, have increased gradually.

The first work, *Discrete-composite*, has anthropocentric reminiscences and traces of familiarity for the listening, making the distance short, while the last one, *Synthesis of Unlocated Affections*, possesses a xeno nature and creates the effect of estrangement, making the listener face some difficulties to understand and to approach the sonic object as a whole, therefore resulting in a growing distance.

Finally, I deeply believe that the collaborations has strengthened my solo artist vision. *Folds* and *Spaceless Latitudes* became more musical, environmental and narrative. Thanks to this, I could make thingness more flexible and I am now able to make objects more dramatic for project with different nature, always keeping some of their unconventional emergent qualities explored through in my solo portfolio.

These collaborations led me to discover certain questions a posteriori about extending my conception of thingness, which I hope to answer eventually through my future work:

- How does the transformation of perspective affect the identity of the thingness?
- How does it affect the construction of the object?
- What is the thingness experience?
- How to include the object in more narrative or dramatic approaches?
- How does the aesthetic distance survive narration?
- Which qualities do I lose, and which new ones does emerge? What should I do in order to maintain them?
- How has the object mutated?

Further explorations

My intention is to continue exploring the rift between the listener and the object, as well as her/his access to it. I think it would be interesting to place both in an environment in which all the elements, questions, and reasoning of my research would be questioned again: my next exploration will most probably be on objects in 3D virtual reality and in augmented reality. I think it may open a way to decentralise the human main role, and to generate a bigger rift, a bigger aesthetic distance between the object and the listener. Placing the human in a synthetic environment where she/he is not the owner of her/his context, and where she/he is not familiarised with the surrounding, would be an interesting way to explore 'depriving access to the object'. It is essential to note that I am not interested to mimic the real-reality.

Almost exactly one year after my WFS residency, in September 2017, I was asked by artist Alex Mirutziu to write a piece for his performance *Dignity to the Unsaid* at The Bucharest International Dance Film Festival. The performance was originally based in the interaction of three humans (human objects) using sound just as a complement. I suggested to Alex to implement three loudspeakers on stage alongside the performers to create some kind of weird theatre between them. He was excited with this idea, so I composed a fifteen minutes multiobject-piece called *Causal variations of something like*. This idea was conceived from *Structures for Wavefield Synthesis* and his relationship with Butoh, but aiming to create a more strict in situ participation-coexistence between sonic objects and

human objects. Performers interacted dramatically with the articulations of the sound and they treated sound/loudspeakers as other actors. Despite the fact that the result of the piece was successful as a performance, Alex had quite fixed ideas about the final work, and therefore I couldn't follow in depth the work through the thingness prism. Nonetheless, I have been really intrigued to extend thingness into dance, theatre and performance with human actors, but this is something I plan to explore further later. I would definitely like to explore the idea of objects cohabiting with humans in contemporary dance or performance, loudspeakers and humans on stage making relationships between sound and human through bodily articulations. The loudspeaker, set up on stage, despite being a static object, could be dynamic because the sound it emits is complexly articulated, just like the human body in motion. The sound pieces developed in this portfolio are based on immaterial synthetic sound bodies, and they suggest an unknown living objects flowing constantly and dynamically. The idea would be to develop an interrelation between the sound structures generated by computer and the movement of the body outlined on a stage. The loudspeaker appears as a scenographic element, a producer of organic entities in close interaction with the dancer. This project, under a multidisciplinary perspective, would attempt to present a dramatic and bidirectional experience between sound and dance, in which this relationship would create a fluctuating ecology between the human body, the synthetic sound body, and space. I would try to create a compositional and aesthetic language between contemporary dance and my aesthetics of computer music.

Regarding SYNSPECIES, there is still an open field to explore in relation to a dramatisation of the object in time, and I aim to further improve my approach to visuocentric composition. I'm using this project to bring together all my different aesthetic practices, and to try to find a compromise between thingness and musical dramaturgy.

9. Appendix

Package contents

This appendix explains the structure of the package (ElíasMerinoPhDportfolio) submitted along this written document.

Installations

Discrete-composite

1. Main format of the sound

1.Long take multichannel.aiff

This file contains a multichannel recording of the piece.

2. Multichannel architectures

This folder contains the seven multichannel independent architectures which compose *Discrete-composite*: (Architecture-001-007.wav).

2. Stereo documentation

1. Stereo reduction architectures

This folder contains two different variations (rendered directly from the software and reduced to stereo) of the seven independent architectures which compose *Discrete-composite*: Single architectures_Variation 1 (ArchitectureST1.aiff-ST7), Single architectures_Variation 2 (ArchitectureSTV1.aiff-ST7).

2.Binaural recordings

This folder contains twelve binaural recordings from the installation space: seven files belonging to the different architectures, and five which belong to different random moments when the installation is running. (Architecture1.wav-7, (DC-excerptlong.wav-4)

3. Stereo reduction long takes

This folder contains two different variations of a long stereo reduced recording from the computer when the installation is running. (Stereo reduction variation1.aiff, Stereo reduction variation2.aiff)

4. Environmental object-Sculptural distance

This folder contains a series of representations of the object in relation to its sculptural distance.

initial suppressions

1. Main format of the sound

1. initial suppressions 5.1.wav

This file contains the piece in its original format

2. Stereo documentation

1. initial suppressions-stereo reduction.wav

This file contains a stereo reduction of the piece.

3. initial suppressions_videodoc.mp4

This file contains a video showing an approximate draft of the installation in a physical space. It was recorded at the University of Huddersfield. In this video, the loudspeaker ring has been reduced from 5 to 4 loudspeakers.

3. Local object-Sculptural distance

This folder contains a series of representations of the object in relation to its sculptural distance.

Structures for Wavefield Synthesis

1. Binaural documentation

1. Site specific Binaural recordings[BR]

This folder contains a binaural recording from the installation space of the six objects which conform Structures for Wavefield Synthesis. (structure_1.wav-6)

2. Stereo documentation

2. Computer rendered sound[CR]

This folder contains the objects directly rendered from the software. (Structure_1.wav-7)

3. Graphic objects

This folder contains the six different 3D models belonging to the work. (Structure1.png-6)

4. Hyperobject-Sculptural distance

This folder contains a series of representations of the object in relation to its sculptural distance.

wfs videodoc.mp4

A brief video document during the residency with some music students walking around the installation.

Synthesis of Unlocated Affections

1. Main format sound

1. Synthesis of Unlocated Affections- multichannel.wav

This file contains a recording of all objects in their original format.

2. Raw Objects

This folder contain twelve different objects. These objects are directly rendered from the computer with no overdubs, nor edition, nor mixing. (Object1.wav-12)

2. Specific object-Sculptural distance

This folder contains a serie of representations of the object in relation to its sculptural distance.

Sua_videodoc.mp4- Suavideodoc2.mp4

These files contain two videos showing an approximate draft of the installation in a physical space. It was recorded at the University of Huddersfield.

Is_oto.mov

This file contain a short video of the installation Indivisible Streams at Cafe OTO.

Uncertainty on relations

1. Main format sound

1. UoR full_Multichannel.wav

This file contains a recording of the full piece in its original format.

2. Splitted objects

This folder contains seven different folder (Folders 1-7). Each of them contains the object perspective split in three independent voices. (UoR-perspective1-001Voice.wav-003Voice)

2. Stereo documentation

Object perspectives

This folder contains the seven different polyphonic perspectives. (UoR-perspective1.wav-8)

Uncertainty on relations Full .wav

This file contains the full piece, consisting of a succession of the seven different object perspectives.

Uncertainty_videodoc.mp4

This file contains a video showing an approximate draft of the installation in a physical space. It was recorded at the University of Huddersfield as a proof of concept.

SYNSPECIES-*Spaceless latitudes*

1. Main format sound

1. Spaceless Latitudes multichannel.wav

This file contains a recording of the full piece in its original format.

2. Stereo documentation

SYNSPECIES-Spaceless Latitudes

This folder contains a stereo reduction of the audiovisual installation. (Spaceless Latitudes.mov)

Albums

Not-exhausted about

This folder contains the three different pieces which constitute the album (NEA1.wav, NEA2.wav, NEA3.wav).

Ogive-Folds [Room40]

This folder contains the five pieces which constitute the album (Dehiscence.wav, Isomerica.wav, Refractaise.wav, Rifts.wav, Superhabitat.wav).

Synthesis of Unlocated Affections

This folder contains eleven pieces which constitute the album (SUA_1.wav-11).

Dismissed works

Overgradients

This folder contains the six pieces which constitute the album (Overgradient_e.wav, Overgradient_g.wav, Overgradient_r.wav, Overgradient_s.wav, Overgradient_v.wav, Overgradient_y.wav)

Code

This folder contains: two different pieces of code which were used for the composition of two relevant works in the thesis and a PDF with instructions of how to run the code.

Discrete-Composite

This folder contains the original 25 channel Supercollider code of the installation (*Discrete-Composite.scd*) + sound samples.

Synthesis of Unlocated Affections

This folder contains the code of one object belonging to *Synthesis of Unlocated Affections* (Object 1 *example.scd*)+ a sound sample (*beatomono.wav*, *seq1.R.wav*) + a class needed for the code (*Objectsets.sc*)

Technical appendix

This appendix is an example of a technical implementation of the various aesthetic ideas discussed in the thesis in one of the works. I have selected to discuss the work *Synthesis of Unlocated Affections* because it is the most relevant piece within the portfolio: this piece gathers all the elements required by the previously defined 'thingness' concept to get a successful object. As already explained in detail in the commentary, the use of technology plays an important role in my work as a 'compositional partner', yet is mostly considered as a tool towards aesthetic concerns at the core of my aesthetic research. However, technology has been instrumental to materialise my aesthetic and conceptual principles in sound pieces. In the following paragraphs, I will enumerate the main features of my sonic objects and how I have translated them technically.

As stated in section 4 and 5, OOO considers objects as impossible to know completely, and I strive to make my object non-anthropocentric. Therefore, I have used computer-generated synthetic sounds in order to avoid any recognisable and real sound source. For this specific work, I used mostly Supercollider since it has given me a needed expressiveness when it comes to transmitting my ideas. I don't really have any kind of fetish about any software nor am I interested in any apology for technology per se. There is no specific reason, but it is the only program I know that makes me able to achieve impossible timbres and sonic behaviours that I couldn't get by myself. I have tried other ways, such as processing real sounds, for instance in the first piece *Discrete-Composite*, but as one of my main objectives is to generate a timbre with no identifiable origin or source as part of the non-anthropocentric approach to sound, it became imperative to create xeno-sounds that the human is not able to make, and this software enabled me to do so, relying entirely on gritty digital synthesis as explicitly self-referential.

This has been another reason that led me to use algorithmic composition, for which Supercollider is particularly adapted: in this piece, the algorithmic organisation of waveset and granulation allowed me to work and manipulate the sound in different scales: from single micro sounds to a dense mass of small extreme pitched objects, filtered, and time-manipulated beyond hand-made human limitations, creating timbres beyond causal recognition, beyond any real-sounding object, whilst retaining the control I needed at all three levels of timeline I care about.

Often in my work, objects are built of other objects: as described in the commentary, my intention is to show an object composed by multi-structural tissues. Therefore the skeleton of an object is based on three related structures: macro, meso and micro. This has consequences in the very way the sounds are composed and coded in the technology I use to render them:

MICROSTRUCTURE: this is made of basic computer-generated sounds and is the original sound material that will be assembled and synthesised in the mesostructure. This sample

is composed in advance with both real time and non-real time methods. For the sounds belonging to this stage, I have tried few types of synthesis based only on my own taste, for instance, granular and pulsar synthesis, fm synthesis, formant synthesis and stochastic synthesis. The sound is not usually longer than 3 seconds and represents the smallest object within the overall object's structure.

MESOSTRUCTURE: this is the main synthesis engine of the objects. I found that carefully manipulated and distorted granulation of digital sinewaves created the soundworld that was looking for. SuperCollider was a good tool here with its implementation of Waveset Synthesis. It is the structure assembled by a series of custom synthesis building blocks. These building blocks are autonomous because they are objects in themselves: they can be played alone, having their own behaviour. The relationship established among the building blocks gives birth to the sonic object and its perspectives and mutations. In the SuperCollider code provided, we can see that I randomly choose playback options at various curated speeds and combinations, yet use SuperCollider's ability to nest such curated random structure to keep a sense of surprise and evolution in the object's behaviour.

MACROSTRUCTURE are routines which organise the meso-objects as larger building blocks in time. This structure weaves the final appearance and behaviour of the final object, combining and confronting the meso-structure objects to make them emerge as discussed in the commentary's compositional aims. To respect the important characteristic of an object not having a teleological narrative, the synthesis modules were limited to a phrase level, and each synthesis module has a similar but different texture. This gave me the desired sound changes at meso-level, but does not make them evolve towards any specific point. To help me with this, I used routines that were responsible for organising all the synthesis modules randomly, superimposing, or juxtaposing each of them allowing us to hear the mutations and the change of perspective of the object. SuperCollider's routines are particularly adapted to this kind of work.

The following code shows the structure and operation of a specific object (Object12) which belongs to *Synthesis of Unlocated Affections*; all objects are implemented via similar systems. This code has been reduced and encapsulated in one page in order to make its explanation clearer for the reader: there are actually a larger amount of mesostructure's building blocks.

EXAMPLE OF A SONIC OBJECT'S TECHNICAL SKELETON

```
q = Objectsets.from("routehere/beatomono.wav");
```

```

a = l.stop;
Task {l.stop{
  var start, end, i, startFr,
  endFr, dur, repeats;
  var order = q.xings.order ;

  [575, 75, 84],choose.do {
    arg start;
    var ev = q.eventFor([1, 21,
    513].choose, numWs:12,
    rand, repeats:3.rand,
    playRate:expRand(12.05,
    0.3));

    ev.putPairs(l.amp, 0.35, \
    pan, 1.0.rand2);

    ev.play;
    (ev.sustain*0.05).wait;
  };

  1.004.rand.wait;
  };
  );
  );
}

```

```

d = l.stop;
Task {loop{
  var start, end,i, startFr,
  endFr, dur, repeats;
  var order = q.xings.order ;
  Array.series(1514,blinrand,
  19.limrand, [13, 11, 39],
  choose), do { arg start;
  var ev = q.eventFor(1, 21,
  513, 713, 7346, 6111, 67,
  55, 9126).choose, numWs8,
  repeats=8.rand, playRate.ex-
  prand(12, 0.5, 0.3));
  expurPairs(lamp, 0.35, pan
  0.5.rand2);
  ev.play;
  (ev.sustain*0.09).wait;
  );
  rand(0.001, 0.25).wait;
  });
  );
}
)

```

```

t=(t.stop:
Task { (loop{
    var start, end, t, startFr;
    endFr, dur, repeats;
    var order = q.kings.order ;
    ; Array series('1514, blinrand,
    19.inrand, [13, 11, 39];
    choose) do { arg start;
    var ev = q.eventFor([1, 21,
    513, 713, 7346, 6111, 67, 55,
    9126].choose, numWs[5, 7,
    8].choose, repeats:6.rand,
    playRate.expRand[672, [0.5,
    0.73, 1].choose, 0.3]);
    n
    ev.putPairs((lamp, 0.20, pan
    0.5.rand2]);
    ev.play;
    (ev.sustain"0.01").wait;
    });
    rand(0.001, 0.35).wait;
    });
    );
    )
}

```

```
(
  i!=(i.stop):
    Task (loop)
      var start, end,i, startFr,
      endFr, dur, repeats:
        Array.series(1514,blinrand,
          rrand2,[1, 0.4, 13, 11, 39],
          choose).do { arg start;
            var ev = q.evFor(1,
              321, 13, 373, 6346, 2451,
              2564, 55, 19126).choose,
              numWs:rrand(8, 10),
              repeats:6.rand, playRate ex-
              prand(120.52, 9498.04),
              choose [0.4, 0.5, 0.7],
              choose 0.1)).
              ev.putFrPairs((lamp,
                0.2, *pan, 0.5.rand2));
              ev.play;
              (ev.sustain*[0.004, 0.03],
                choose).wait;
              };
              rrand(0.001, 0.35).wait;
              );
              );
              )
)
```

MICROSTRUCTURE: A computer-generated sound and the original sound material that will be synthesised in the mesostructure. This sample is composed in advance, it is not usually longer than 3 seconds and represents the smallest object within the object's structure.

MESOSTRUCTURE: This structure is assembled by a series of custom Waveset Synthesis* building blocks called Objectsects. Each of these are objects themselves since they can be played alone and have their own behaviour. The relationship established among the building blocks gives birth to the sonic object and its perspectives and mutations.

MACROSTRUCTURE: A routine which organise the meso-objects in time. This structure weaves the final sonic object.

Based on Alberto De Campo's waveset implementation in Supercollider.

As discussed in section 5, for me, an object needs to show an unnatural/uncanny and vivid behaviour: for this reason, I have used algorithmic sound manipulation, behaviours and temporal iterations and routines that could difficultly be performed or even conceived by a human crafting the work in a fixed timeline. Each synthesis module is repeated an infinite number of times and each iteration generates a different type of texture, within carefully bounded random limits. I have also used different methods to generate a feeling of elasticity in my sounds: to achieve this plasticity, I have played with indeterminate speeds of the iterations, but also their accumulation, making them sometimes accumulate for a few seconds. This accumulation of sustained repetitions gave me the sound texture with the required material-like textures.

After this stage of careful compositional synthesis, and once the object is successfully considered alive, I record the output of the result with no editing or overdubs. As explained in the commentary, I want to remove the composer's trail, leaving accidents in object's appearance, and I want to generate an object that is as raw as possible, which shows brutal and no ornamented appearance. These are the main reasons why I have not used any kind of studio mixing process in post-production.

Then, one could wonder why are the objects are rendered and not released as the SuperCollider code to be synthesised live, different each time. The answer lies in the commentary: the focus is on the priority to phenomenological liveness (p.42) and the concerns of portability (p.42). Questions of permanency of the work can also be considered: SuperCollider is continuously evolving and I would not want to have the maintenance work every time new versions of the various algorithms are provided, potentially changing the sounds I curated carefully in the design process.

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Mohr, M. (1979). P-197 J [acrylic on canvas]. Exhibited at Daimler Art Collection, Berlin.

Neuhaus, M. (1967). Time Square [sound installation]. Exhibited at Times Square Street Business Improvement District. USA.

Roden, S. (2008). When books are like butterflies [printed dust jackets, found books, audio equipment]. Exhibited at Happy New Ears Festival, Belgium.

Roden, S. (2010). When words become forms. [large scale film/ sound/sculpture installation]. Exhibited at Pomona College Museum of Art. USA.

Vitiello, S. (2004). Fear of high places and natural things [modified CD player, stereo CD, amplifier, nine 10" loudspeakers]. Exhibited at MoMa. New York.

Vitiello, S. (2014). Gain and Lift. [four channels, sixteen 6.25" loudspeakers]. Exhibited at American Contemporary. USA.

Von Huene, S. (1969). Rosebud Annunciator [sound installation]. Exhibited at Electromagica Exhibition. Japan.

Young, L.M, Zaleela, M. Dream House [sound and light environment] (1993). Exhibited at Mela Foundation, USA.

Zimoun, (2014). Sculpting sound [sound installations]. Exhibited at The Ringling Museum of Art. USA.