

S.O.A.P.: Making clean our compositional practice

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Abstract

The intuitive creative process is one where we are not always aware of the boundaries that we set ourselves. As composers, we feel the musical flow, the sounds as they pour out of the speakers and fill our ears. It is not anything we can truly understand, this artistic flair that feels so natural. Often, it is when the flow is complete, and the work has stopped that we can step back and realise precisely what we have created. But how do we express this ineffable process through words? Especially when words bring restrictions of meaning that might not accurately reflect our intentions. However, by imposing these lexical restrictions, we are made to address our art in more clearly defined terms, thus noticing some of the artistic boundaries that we subconsciously set ourselves. Texts such as programme notes are a useful exercise for communication and an opportunity for us to further understand our inner workings, but how can we as composers do more? Within this exciting area is where this paper proposes a framework to aid such explorations.

This framework highlights the composer's conscious and subconscious treatment of four elements of composition and performance (space, objects, agency, and place (S.O.A.P)) within two environments (the digital environment and the performance environment). The S.O.A.P. framework allows the composer to highlight their subconscious approach to these elements, gaining 'new' information to help inform their future compositions. As such, S.O.A.P. is designed to analyse artistic practice as opposed to just a singular composition, and can be applied to a range of performance media. This makes S.O.A.P. a potentially useful tool for all sonic artists who can use it both for analysis and as stimulation for new works. It is my aim that by addressing the habits of our creative practice, we can begin to consciously work with or against them, thus enhancing and expanding our creative practice.

The S.O.A.P. framework was developed in tandem with my own compositions. As such, being critical of my own compositional practice helped me to develop S.O.A.P. and, in turn, S.O.A.P. encouraged me to challenge my normal tendencies - to find new approaches to composition and performance, ultimately resulting in a varied and interesting range of works.

1. Introduction

As composers, our creative process is founded on intuition. We make many conscious and subconscious decisions during the conception and creation of a piece of art. Such intuitive creative decisions run like invisible stitching throughout our work - they hold it together, and though they are not the focus of our attention during the act of composing, they are imperative to creating a piece of music. It is not difficult to imagine how laborious the act of writing music would be if every decision were made consciously - where we deliberate over the

nuances of each timbre, each sound's duration, and create rationales for every aspect of the piece. We should embrace the intuitive subconscious decisions as they allow us to compose naturally and find a flow.

Through examining our own compositions, we can often see recurring themes and their presence can go unnoticed until pointed out to us. Many of these subconscious themes come from schemas that have been developed and ingrained in us over time (Coull). Such schemas permeate our entire existence in every aspect of life.

There are many subconscious schemas we develop with language, for instance. How we find that tick-tock and clip-clop both feel correct but not tock-tick or clop-clip.¹ Many people such as Simon Emmerson (Emmerson, 1986) and Pierre Schaeffer (Schaeffer, 1966), have likened music to a language, so it is not without reason that I draw the parallel. In language as well as in music, we develop a sense of what feels 'right' and what feels 'wrong,' often being at a loss to explain why we feel this way. However, society has not codified sounds in the same way as words - there is no sonic dictionary that provides the meaning of all sounds and timbres. The potential meaning of a sound could change drastically depending on the context and the individual perception of the listener. And yet, despite its non-codified nature, composers still maintain this sense of what sounds right or wrong.

Writing a programme note can be a useful exercise to recognise subconscious decisions. It is when we stop to consider our output that we realise things that were hiding from us. Even a piece that has been conceptualised in great detail is not immune to such realisations. We can feel disingenuous when it seems as though we are reverse-engineering our composition - when the piece has long since been finished but we pretend these recent realisations were conscious throughout the entire compositional process. I maintain that as long as there is a justification for these newly-recognised features, themes, or ideas, then there is no reason to exclude them. All characteristics of our compositions are worthy of being highlighted in a programme note.

Subconscious decisions are present throughout every aspect of the creative process, not just when we are working with sounds but also in the work's initial conception. They are also present in the choice of media, be it audio-visual, installation, fixed media, a form of live performance or something else. Analysing how we choose to present or perform our work helps us to understand our own unique creative mind further. This new recognition allows us to become more familiar with our own tendencies, thus allowing us greater control over our creative actions. This control is desirable as once we highlight the tendencies of our intuition, we can then begin to work with them, shaping, accenting or eliminating them during our future compositions.

The framework that I have designed is intended to bring to light subconscious decisions, but it is in no way exhaustive. There is an infinite amount of ideas and inspirations to compose around and an endless number of ways to do so. Even if we succeed in bringing some subconscious tendencies or decisions to light, we can never expect to uncover all of them. The S.O.A.P. framework focuses on four selected elements: space, objects, agency, and place, each of which I will discuss in section two of this paper.

The framework requires two parts in order to be effective: a diagram and a supporting commentary. The commentary supporting the diagrams provides the user with the opportunity

¹This is the rule of ablaut reduplication (Forsyth, 2013).

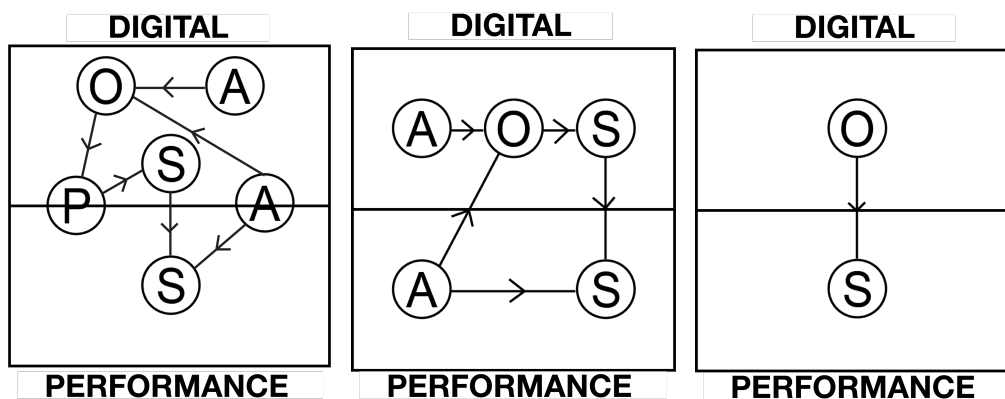
to add details which the diagrams themselves cannot show, for example, changes over time. The diagrams on their own are useful for providing critical information quickly and conveniently and therefore rely on using abbreviations to refer to what are often complicated ideas. The diagrams are divided into two sections representing the performance environment and the digital environment. The performance environment is the area of the intended performance. This can be a venue (either inside or outside) or even a pair of headphones. It is where the composer intends their audience or listener to be located. The digital environment is unseen and uninhabitable. It is a concept rather than a physical space. Sounds that need to travel through loudspeakers in order to be heard exist in the digital environment. Audio manipulations made using software happen in the digital environment. Depending on the piece in question, the positioning of the letters representing the four elements of S.O.A.P. will vary to denote where each element is present (see example diagrams below).

This framework is flexible and multifunctional both as a tool for analysis (post-composition), a tool for planning (pre-composition), and as a tool for revision and re-stimulation during the compositional process.

Considering space, objects, agency, and place after finishing a composition is useful for highlighting aspects of the composer's creative process. We can treat these as if they are parameters and consider how we have explored each one. Perhaps in future compositions we may decide to focus more deeply on place or try new approaches to how we use space.

S.O.A.P. is also a valuable tool for planning as it encourages the composer to consider each of the four elements individually and survey performance options to find the one best suited to their ideas. I have found that by implementing S.O.A.P. as a planning tool in my own compositions, I have constructed interesting performance ideas such as changing the orientation of the audience or developing ways of challenging their perception of time and place.

In the following text I will provide definitions for the terms space, objects, agency, and place as well as further explaining the diagrams' structure with reference to what I have called the digital environment and the performance environment. I will also provide rationales for developing the framework in the way that I have, and place the role of the listener within this context.



Example S.O.A.P. diagrams

2. S.O.A.P.

In this section, I will explain the four individual aspects of S.O.A.P.. It should first be noted that their ordering in the name of this framework was solely for the purpose of creating a pleasing and memorable acronym and does not suggest a hierarchy of space above objects above agency above place. In fact, when explaining the S.O.A.P. framework, I have found that it is best to discuss them in the order of objects, then agency, and then place and space together. By discussing place and space simultaneously, we can better examine their differences and how one relates to the other.

2.1. Objects

The letter O in the S.O.A.P. diagrams stands for *objects*, meaning the sounds and their source during a live performance. Objects can come from a multitude of sources including, though not limited to, speakers, live performers, instruments, and voices. In the S.O.A.P. analysis framework, the term objects is primarily used to refer to sound objects (as opposed to sounding objects). By this, I mean the sounds in themselves - what Schaeffer believed to be the primary concern of music (Schaeffer, 1966). The importance of sound objects does not suggest that sounding objects - the source and cause of the sound - are disregarded in the S.O.A.P. framework. Instead, such connotative sounds should be discussed throughout the supporting text when it is appropriate to do so. For example, when the sound of traffic and heeled shoes hitting pavement brings a sense of a particular location, it would be more appropriate to discuss this when talking about place. There is no singular aspect of S.O.A.P. where the discussion of sounding objects belongs as the source and cause of a sound has the potential to impact our perception of agency, space, and place.

Whether we hear a sound as recognisable or not dramatically affects our overall perception of the piece we are listening to. This is because recognisable sounds trigger us to use instinctual listening modes. In research following on from Schaeffer's four listening modes - *ecouter*, *ouir*, *entendre*, and *comprendre* - Michel Chion's *Audio-Vision: Sound on Screen* (1990) proposed that there are three modes of listening: *causal*, *semantic*, and *reduced*. In our primal mode of listening (causal listening) we search for any connotations that allow us to discern a

meaning from the sound. As a means of survival, humans have developed an ability to recognise sounds without needing to see their cause and can locate the direction and proximity of the sound source. Our second primal listening mode, according to Chion, is semantic listening, where we listen to sound like a code with underlying meaning. We ordinarily reserve this mode for languages, though this is also instinctual and a key factor in human evolution is our ability to communicate and work as a team. The third mode of listening can feel unnatural. Reduced listening is when we hear a sound but disregard any further meaning - it is merely the sound in itself and nothing more.

When musique concrète was in its infancy, reduced or acousmatic listening was the intended method of approaching these types of work (Adkins et al., 2016). This approach meant that, even though the sounds used may be very close to the original, the listener was supposed to disregard any connotations or extrinsic meaning (Smalley, 1996). Their focus should be on the sound object as opposed to the sounding object. Today, fixed media music has evolved to be more accepting of what Jonty Harrison calls expanded listening (Palmer, 2002). Now, when a composer uses recognisable sounds, we assume that they want us to consider the external references of these sounds - Pete Stollery's *ABZ/A* (1998), for example, demonstrates the need to recognise accents and location-cues to give a sense of place. Conversely, Pierre Schaeffer's suite, *Etude aux Objets* (1959), does not rely on the listener recognising the objects that the sounds were taken from. Many of my compositions require the listener to recognise certain sounds because their connotations contribute to the themes and ideas.

Depending on what mode of listening we approach a piece with, we may experience it differently. Acousmatic music often leads us through many changes in listening modes. I believe that an excellent example of this is *New Shruti* (2013) by Manuella Blackburn. Whether intentional or not, Blackburn's piece pulled me between causal and reduced listening modes. At the beginning of the composition, the changes are less frequent. However, as it goes on, I am bombarded with fragments of a recognisable sitar sounds as well as more abstract sounds. When I listen to this piece, I find that I default to a reduced listening mode as my perception cannot switch between causal listening and reduced listening quickly enough. This new approach to the sitar material gives me a fresh perspective on the sound of the instrument and how it relates to the abstract material used alongside it.

When I was first introduced to electroacoustic music, I was particularly awestruck by Gilles Gobeil's composition, *Le Vertige Inconnu* (1994). The title of the piece translates as The Mysterious Vertigo and was inspired by the Paul Valéry quote from *Le solitaire*:

... here, on the roof of the world, I feel a shadow of uneasiness... It's not at all the height, nor the kind of suction exerted by the abrupt depths and its emptiness which troubles me. It's an altogether different emptiness which affects an altogether different sense... the essence of solitude...(www.electrocd.com)

Le Vertige Inconnu is an example of when expanded listening is desirable. By jumping suddenly into different environments (a field at night, or a fast moving train, for example), Gobeil demonstrates a range of depths and spaces - some frighteningly vast, others unsettlingly small. Not all sounds in this piece are recognisable, however; many serve to suggest large, open space with their sparsity and reverberation; others make the sound world feel close, chaotic and cluttered. This constant jumping between extremes is what keeps the piece interesting for me. Although I have listened to *Le Vertige Inconnu* many times, my

attention is always captured by the suspense of sudden changes between pseudo-claustrophobic and pseudo-agoraphobic scenes.

2.2. Agency

There is much debate surrounding the exact definition of an agent or agency and many arguments depend on knowledge of the agent's intentions, mindset, or goals (Schlosser, 2015). In the context of recorded sound, where the listener can only hear the outcome of an action, such knowledge cannot always be obtained. Instead, the listener relies on their own knowledge and experiences to "fill in the gaps", to find the most likely reason for what they have heard. Perhaps the clearest way for a composer to give a sense of agency is through using voice recordings. From voice alone, a listener can gather a likely gender, approximate age, nationality, and perhaps the emotion of the person making the sound. Despite many definitions requiring an agent to be human or at least living in some capacity, in the context of electroacoustic music, where sounds have often been morphed by the composer, a listener cannot always be certain of what they are hearing. A listener may perceive there to be an agent performing an action that results in what they hear but, as the sounding objects often remain undisclosed, the listener cannot always know if the sound was made by a living being.

For the purpose of this framework, I have adapted what Barandairan et al. (2009) call "minimal agency" to suit the context of electroacoustic music. Broadly speaking, the definition of a minimal agent is "a unified entity that is distinguishable from its environment and that is doing something by itself in accord with a certain goal (or norm)" (Schlosser, 2015). Although this definition of an agent is applied to living beings and micro-organisms, in the context of sound I would like to extend this to include non-living agents such as inanimate objects, the wind or the sea.

In normal circumstances, inanimate objects do not act of any free will; they do not make decisions and they can only react to external forces. However, in the context of sound as music, the composer can give the illusion of agency to such objects. In my electroacoustic composition, *Lines* (2017-18), for example, the first sound is that of a ping-pong ball being dropped into a drinking glass. When this sound is heard, a listener may imagine a human releasing the ball into the glass. In this example, the human is the agent. However, as the piece progresses and the sound of the ping-pong ball bouncing continues on long past what any person would expect, it is as though the ball has a life of its own and that it is generating its own energy with which to continue bouncing. This altered image of the ball that the composer has crafted is outwith the norm of how a ping-pong ball would usually react. It is as though the composer has brought life to the ball and this may cause the listener to perceive it as an agent, capable of acting and not just simply reacting.

Our perception of agency is altered depending on the information that is available to us. The above examples were strictly and solely sound-based. However, many forms of musical performance use live performers with sound being generated acoustically, that is untransformed and with the agent's actions visible to the audience. Having live performers impacts the audience's perception of agency as these agents are often obvious and not hidden.

The aforementioned *New Shruti* is an example of an acousmatic composition, meaning that the sounds come purely from the loudspeakers.² It uses sound material from a sitar and a selection of other, unrecognisable sources. Whilst all sounds come through the loudspeakers, I can imagine that having a live sitar player performing would result in a very different experience for the audience. A piece for live sitar and live electronics might be able to sound the same as *New Shruti* but would give a different experience to the listener. The presence of a performer adds greater emphasis to the sounds coming from that source as it draws the attention of both our ears and our eyes. Even if the piece sounds the same, the performer's behaviour - whether they smile or frown, or if they move quickly or slowly - can alter our perception of the composition.

There can also be cases of displaced agency, where the composer gives the impression that an agent's action is affecting the sound but in a non-linear way. For example, in my piece, *In(Habit)Space* (2019), there are female hands shown on screen to be rubbing different rocks while various rock scraping and tapping sounds can be heard. The audio does not directly align with the actions in the video but instead suggests that these actions (or similar actions) have caused these sounds. The agent who made the sounds might be a different person but as there is no information to confirm this, the sensible conclusion would be that the audio and visuals contain the same agent. Therefore, the rock-scraping agent appears displaced, perceived as acting in visual and audio but at different points in time.

My live-coded composition, *Bearing Zero* (2018), is an example of implied agency. This is form of agency that the composer can create through providing a false narrative, crafting the sounds in such a way that implies one things but was in reality something different. In this live coding piece, I use samples of individual guzheng notes, which, when considering the sound on its own, imply the presence of a skillful guzheng performer. In reality, this agent does not exist as it is merely the computer cycling through patterns of guzheng notes.

The last form of agency I would like to touch upon is collective agency.

Collective agency occurs when two or more individuals act as a group (in accordance with certain principles or procedures that constitute and organize the group). (Schlosser, 2015)

Such examples in music might include soundscapes as these are often constituted of many different sounds from many different agents, living or nonliving. The city soundscape in my piece, *Sounds of the Silent City* (2017), is a clear example of this. There are the sounds of pedestrian crossings, footsteps, bus breaks, wind, seagulls, and talking. While it is possible to break the scene down to consider each individual agent and their sounds, it is the juxtaposition of these sounds and corresponding agents that create the image of a city. Therefore, as we consider all sounds together to be contributing to one scene, we also consider the various agents together to be contributing to one collective agency.

²It should be noted that there is a difference between acousmatic listening (hearing sounds whilst disregarding their source) and an acousmatic composition (a piece designed to be performed through loudspeakers with no visual aspect).

2.3. Place and Space

The juxtaposition of recognisable sounds can impact hugely upon the perception of electroacoustic compositions. Different combinations of sounds can trigger different connotations because of the schemas we have built through our everyday experiences. Nothing exemplifies this more than when evoking a sense of place. For example, combining seagull calls with crashing waves suggests a different type of location than the combination of seagulls and traffic. Although it is unlikely that most listeners will be able to identify the exact location of a piece without further information, they are usually able to grasp the general environment - city street, city park, countryside, forest. The locational implication of these sounds can influence how the listener places other sounds within the context of the work. I have found that it can be quite interesting to play with the listener's preconceived schemas of places by including sounds that go against their expectations. A significant purpose of the S.O.A.P. analysis framework is to challenge the approach to how we as composers deal with the four abstractions of space, objects, agency, and place, and another way in which we can oppose the sense of place is by exploiting the listener's sense of space.

While the terms space and place might seem as though they mean very similar things, they are, in fact, quite different. In his seminal text, *Space and Place: The Perspective of Experience*, Yi-Fu Tuan offers many definitions and distinctions between the two. Perhaps the most explicit distinction arises when he writes:

Place is a special kind of object. It is a concentration of value, though not a valued thing that can be handled or carried about easily; it is an object in which one can dwell. Space, we have noted, is given by the ability to move. Movements are often directed towards or repulsed by, objects and place. Hence space can be variously experienced as that relative location of objects or places, as the distances and expanses that separate or link places, and - more abstractly - as the area defined by a network of places. (Tuan, 2001)

Place is the presence of objects and values. However, the perception of value is subjective. What one person perceives to be significant may be insignificant or even devoid of value for someone else. Conversely, space is the absence of these two and, as such, it is objective. In the realm of the sonic, space affects the acoustics.

Sounds, though vaguely located, can convey a strong sense of size (volume) and of distance. For example, in an empty cathedral the sound of footsteps tapping sharply on the stone floor creates an impression of cavernous vastness. (Tuan, 2001)

In the above example, the cathedral is the place and the “cavernous vastness” describes its space. He adds that

Sound itself can evoke spatial impressions. The reverberations of thunder are voluminous; the squeaking of chalk on slate is “pinched” and thin. Low music tones are voluminous whereas those of a high pitch seem thin and penetrating. (Tuan, 2001)

Our perception of space and the relative placement of objects to our central location has a direct impact on our experience of the work. Some electroacoustic compositions make use of sounds that are very loud and clear, which accordingly feel very close. From personal

experience I can say that this can induce feelings of claustrophobia as an event that seems to happen very close to us yet is out of our control can make us feel uneasy - particularly in the typically dark setting of an electroacoustic concert. *Le Vertige Inconnu*, as mentioned before, is a fantastic example of dramatic changes in space.

We will begin to question the reality of a place if the acoustics are not as we would expect. A seaside soundscape with immense reverberation, for example, might lead us to assume the composer is warping our sense of reality. We may question if we are really hearing a seaside at all or if it is a clever illusion. The same could be said of two juxtaposed sounds which would not typically be heard together - for example heavy traffic and farm noises.

2.4. Digital and Performance Environments

There are two environments to consider when composing - the digital environment and the performance environment. The performance environment is the area of the intended performance. This can be a venue (either inside or outside) or even a pair of headphones. It is where the composer intends their audience or listener to be located.

The digital environment is unseen and uninhabitable as it is a concept rather than a physical space. Sounds that need to travel through loudspeakers in order to be heard come from the digital environment and audio manipulations made using software happen in the digital environment.

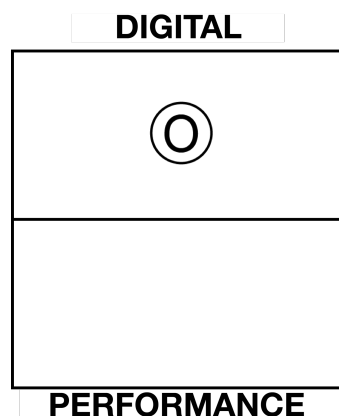


Fig. 1

In the S.O.A.P. diagrams, these environments are shown as two boxes: digital on top and performance underneath. This hierarchical positioning implies that sounds existing in the digital environment need to travel down through loudspeakers into the performance environment in order to be perceived by the listener.³ The presence of such sounds is illustrated by the letter 'O' for objects in the digital environment section (Fig. 1). This, for example, is where all of the sounds in acousmatic music originate.

³The role of the listener and their implied position in the diagram will be discussed in section 2.6..

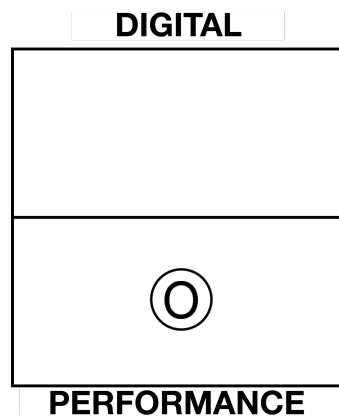


Fig. 2

Of course, not all sounds in music are spawned in the digital environment. Sounds made by acoustic instruments or other non-amplified means are created in the performance environment. In such instances, an 'O' will be in the bottom box (Fig. 2). More traditional forms of music such as string quartets or orchestral music are produced in the performance environment.

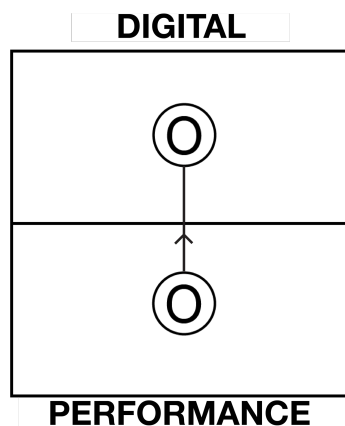


Fig. 3

In instances where sounds produced in the performance environment are taken through a microphone and amplified through the loudspeakers, we need to ask a question: do I intend for my audience to hear the unamplified sound as well? If the answer is yes, an 'O' will be placed in each box. This treats the amplified sound as a separate object from the original, acoustic source. A connecting line signifies that the object in the performance environment is causing the object in the digital environment (Fig. 3). If the answer is no, then there will be no 'O' in the performance environment. Just as objects can exist in both the digital and performance environments, so too can all other aspects of S.O.A.P.. I will go into more detail on these connecting lines of influence in section 2.7..

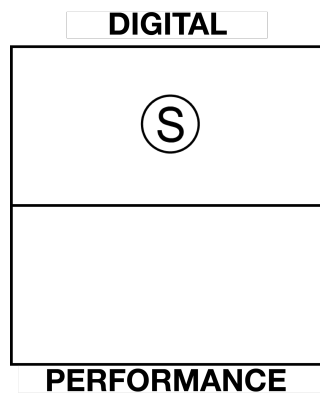


Fig. 4

Space is a parameter for composition in the digital environment since the composer can add reverberation or make a sound appear very close or far away in order to create different spatial impressions. The composer can also pan the sound to play with the orientation of the listener. Space in the digital environment will always be present in the case of recorded sounds because it is an inevitable byproduct of the recording process. Recorded sounds will inherently carry the spatial signature of where they were recorded, even if it is imperceptible to the human ear. They will also carry their positioning to the microphone - whether the sounding object was placed near or far, to the left, to the right or straight on. Even synthesised sounds have space-evoking attributes. This can be in the form of a sound's ADSR trajectory or in any synthetic reverberation, equalisation or delay. This type of space shows as an 'S' in the upper box (Fig. 4).

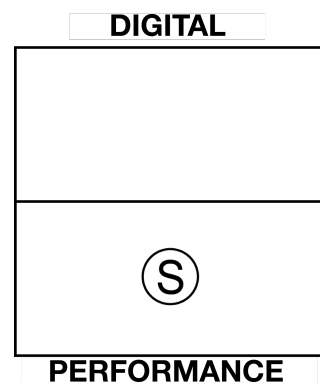


Fig. 5

As it is an inherent characteristic of the real world, space is always present in the performance environment (Fig. 5). Acoustics unavoidably affect the sound during its travel from the source to the listener's ears, even in a soundproofed space. This is still true for compositions for headphones - even though the space in between the speakers and the ear of the listener is small, it still exists. Space also takes into consideration the orientation and proximity of the listener to the sounds they are hearing and thus the performance medium influences the listener's perception of space. Whether the composer uses a multichannel system or a stereo pair of speakers affects how the sound arrives at the listener. Does the composer make use of surround sound or are the sounds all emanating from one location? Since neither the acoustics

or positioning of the sound source(s) to the listener can be removed from the performance of the composition, we cannot separate sound from the spatial signature of the performance environment.

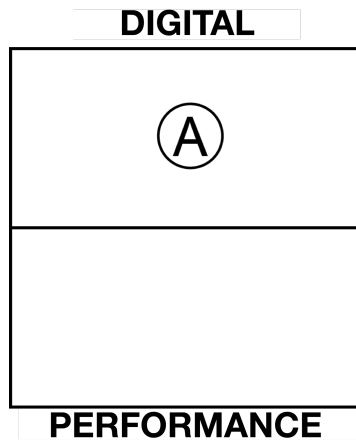


Fig. 6

Agency in the digital environment can be a more complicated matter. There are many instances where an agent might be perceived and it is difficult to know whether the audience will experience the piece as you intend them to. To combat inconsistencies such as this, the S.O.A.P. framework encourages the composer to illustrate how they hope the audience will experience their piece. Whether the audience will have that same experience that the composer intends is a separate matter and one that will vary from piece to piece and performance to performance. There can be a number of ways to evoke a sense of agency in the digital environment (represented by an 'A' in the top box (Fig. 6)). An audiovisual piece with a person on screen is perhaps the most concrete way of evoking agency in the digital environment. Other examples could include using voices or source-bonded sounds of a clear action. A weaker sense of agency may be evoked through using sounds with a strong gestural quality.

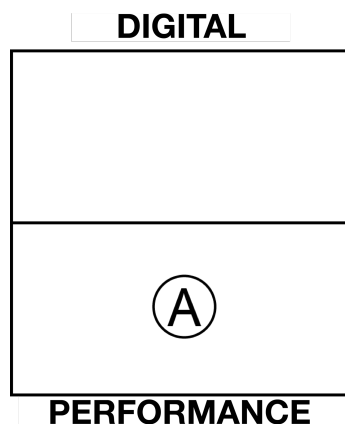


Fig. 7

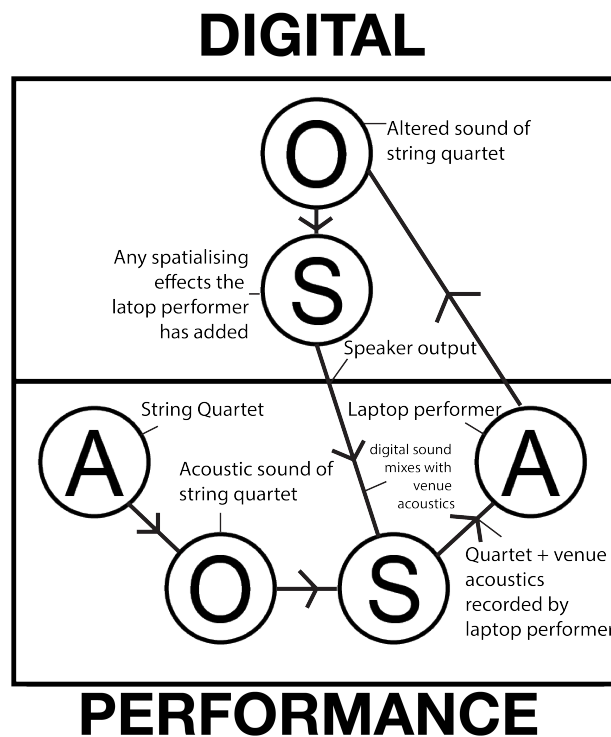


Fig. 8

When a physical performer is present, they can be shown as an ‘A’ in the performance environment (Fig. 7). A performer playing an instrument or otherwise creating sound evokes a strong sense of agency, especially when the performer is visible to the audience. Even a performer typing at a laptop gives a sense of agency if the listener believes they are impacting the performance. How to illustrate agency can start to become somewhat complicated when dealing with multiple performers. In instances such as those, I think about the different impacts the performers are having and the different types of agency present. If several performers are influencing the audience’s experience in similar ways, I group them into one ‘A’ representing their collective agency. Examples of this could be a standard string quartet or even a whole orchestra. If, for example, a string quartet were being sampled live by a fifth person at a laptop, this person’s agency would require a second ‘A’ as they are having a different impact on the performance (Fig. 8).

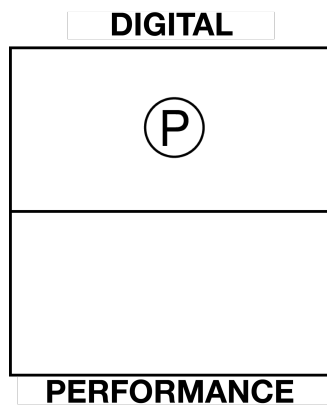


Fig. 9

Place has similar issues to agency in regards to subjectivity. To arouse a recognition of a place in the listener requires the listener to already have some experience of the exact location or the type of location. Again, whether the composer intends for their listeners to experience a sense of place will dictate whether a 'P' appears in the diagram. If the composer intentionally uses a place-evoking soundscape that is played through loudspeakers, then a 'P' should be shown in the digital environment (Fig. 9). Similarly, a sense of place could come from a visual aspect such as a video recording of a location. The evocation of place can range from vague to strong with a video reference or distinct sound mark providing the strongest ties to place, and more generic sounds such as traffic, bird song, or the ocean providing a weaker tie.

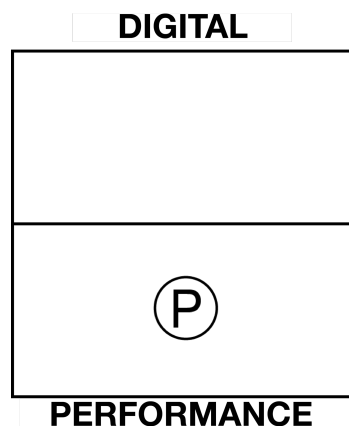


Fig. 10

It is relatively uncommon to find compositions where the place is significant in the performance environment, apart from in works designed for performance at a specific location (Fig. 10). While performances almost always happen in a venue, this location does not often have an impact on the sound itself aside from the acoustics (taken into account in the element of space). Cognitively, we can separate the performance from the venue and view the venue as merely a means for delivering the art. However, sometimes the venue can have significance to the composition. Many site-specific installations can only happen in specific locations, for example, *Vocal Resonances* (2018) by Kathy Hinde and *The Hummingbird Clock* (2016) by Lawrence Abu Hamdan.

2.5. Why S.O.A.P.?

Although it may at first seem odd to think that compositional practice can be narrowed down to four elements, there is reason for this. I regard objects as being separate from agency, place, and space. For the purpose of the diagrams, it needs to be clear where a sound is originating from - this is the main purpose of including objects in my framework. However, as my framework places equal importance on how a piece sounds as well as how it is performed, the other elements included need to apply to both sound and not sound. Place, for example, can be conveyed with sound (a soundscape) but can also be conveyed without sound (images or videos) - so, too, can agency and space. Additionally, their presence in a piece can be explored and played with; in this way they are not simply there or not there, rather these elements can be approached in different ways to give different effects. Agency is a particularly good example of how the composer can approach an element in various ways - as was discussed in section 2.2, there are various types of agency including but not limited to: human, non-human, non-living, collective, and implied. Agency, place, and space function similarly to parameters of sound, however, most parameters (such as frequency, timbre, volume, etc.) do not translate to our other senses and, as such, they do not have a place in the S.O.A.P. framework.

Could there be more elements than just these four? It would be foolish to be close minded and reject the possibility that there could be more elements contributing to compositional practice than just space, objects, agency, and place. While I have endeavoured to receive feedback from other composers, this framework was developed and based off of my own compositional practice. For my needs, I find that S.O.A.P. allows me to discuss everything that I would like to about my pieces. I feel as though I am not restricted by it and, in the supporting text, there is never anything left unsaid or out of place. This is not to say that other composers will have this experience. Should a composer wish to use S.O.A.P. and find that it does not encompass their approach, I encourage them to adapt this framework to suit their practice.

2.6. The Implied Listener

As an intrinsic part of the S.O.A.P. framework, the listener, while not visually represented, is implied. In practice, they have to be present within the performance environment in order to experience the work. The sounds travel from the digital environment, through the speakers into the performance space and then into the ears of the listener. I had considered adding a third environment onto the diagrams to reflect this progression, however, the content of this environment - what the listener is perceiving - is impossible to know with certainty. Leaving it implied that the listener is the third step avoids such issues with subjectivity.

It should also be noted that these diagrams are designed to reflect the composer's intended performance medium. A fixed piece for multichannel diffusion will not yield the same experience for the listener if the listener experiences that piece through headphones instead. I believe this is one of the key differences separating my framework from other analysis models as rather than focusing solely on the individual sounds, a larger focus is placed on their presentation and how this can affect the listener's experience.

2.7. Linearity in S.O.A.P.

Connecting each element (S, O, A, and P) are lines with arrows denoting the progression of influence from one to the next. In this example, I will use the diagram for my electroacoustic composition, *Lines* (Fig. 11).

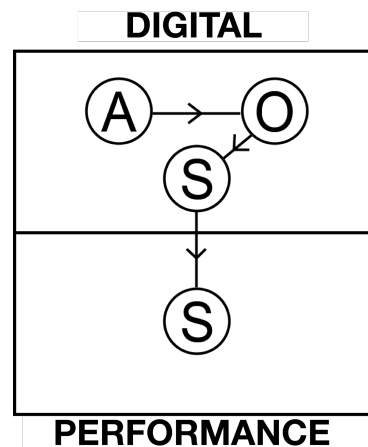


Fig. 11: S.O.A.P. diagram for my electroacoustic composition, *Lines*.

Here, we can see the progression in the digital environment from agency to objects to space before the sound travels into the performance environment by means of loudspeakers. Once in the performance environment, the sound is once again altered by the acoustics and relative placement of the speakers to the listener before the sound is heard.

The justification for the progression is this: whilst the term objects represents the sounds themselves, an agent has first had to act in order to create that sound. The sound in this example is a ping pong ball in a glass vessel and the action of letting the ball drop must have come first in order for the sound to happen.

Whilst I have chosen this progression, I must acknowledge that some might argue in favour of placing objects before agency. This is because the listener first hears the sound and then, based on their experience of that sound, will imagine an agent accordingly. This is how the sounds are immediately perceived. I do not, however, believe this to be the best way to organise these elements. This is because the listener, with their experience of the real world, will understand that the action has happened before the sound; they hear the sound, perceive an agent, and then proceed to understand the sound object as an action that led to a sound.

Space is the last aspect of the digital environment through a similar thought process. As space represents the acoustics of a location (either real or imagined) and the orientation of the listener in reference to this sound, we understand that the sound is produced first and then is subjected to transformation based on the acoustics and listener orientation. Similarly, we first need to hear the sound in order to gather spatial information, however, the listener, once having gathered this information, will still be able to understand the progression as objects that happen first and then travel through a space.

Once all the influences of the digital environment are accounted for, the sound then travels through the speakers into the performance environment. There is influence from the acoustics

of the venue and the orientation of the listener to the speakers before the sound waves reach the listener's ears.

The diagrams are structured to reflect the true order of occurrence rather than the order of immediate perception. This is because immediate perception is fleeting but the information gathered by it leads to the listener understanding the true order of occurrence.

2.8. Simplicity is Key

It is true that the diagrams do not go in-depth into every piece, but, rather than be a shortcoming, I believe this simplicity to be one of their strengths. Firstly, as the diagrams should reflect how the composer intends their work to be understood, it would be foolish to attempt to include significant detail because of the issues bound to subjectivity. Secondly, a diagram can never be a true reflection of a piece of music. This is not just true of S.O.A.P. but of any and all diagrams as it will never achieve the same experience as listening to the piece for yourself. Any diagrammatic system will have limited potential from the start, which is why I encourage those wishing to adopt the S.O.A.P. framework to support their diagrams with text. This text will be able to fill in any information that the diagrams are ineffective at articulating. Thirdly, simple diagrams are more accessible, meaning that the S.O.A.P. analysis framework - one that is inherently designed to support multiple media - can be utilised by a wider community of people and not just those with specialised knowledge of electroacoustic music. Finally, simple diagrams are easy to digest and the S.O.A.P. diagrams only provide high level information. Therefore, small differences such as changing one letter, will have a large impact on the piece. Simple diagrams allow the implication of these changes to be easily understood.

2.9. The Purpose of S.O.A.P.

A key purpose of the S.O.A.P. analysis framework is to inspire new compositional approaches. Through analysing your finished compositions, the diagrams might be able to highlight consistencies and tendencies - some of which might have been subconscious. From here, you may wish to change your approach, focusing on a new aspect of composing or purposefully attempting to step away from your tendencies in order to explore new areas.

Many analysis frameworks are concerned with building a code with which we can discuss the complexities of sound objects. Smalley's spectromorphology system offers a way to describe perceived spectral changes in sound as they manifest in time and concerns itself with the interactions between individual sound objects (Smalley, 1997). Emmerson's Language Grid offers a system for categorising sound objects within the context of the piece as a whole based on the two continuums of abstract/abstracted and aural/mimetic (Emmerson, 1986). Both of these well-established analysis frameworks place greater emphasis on the sounds themselves than how the composer has chosen to present them to the listener in the context of the performance. Rather than offer a language with which we can describe sound, S.O.A.P. analysis is a reflective exercise that considers the work's function in the context of the composer's compositional practice. Its broad nature allows for other analysis systems to be included if the composer would find it useful.

S.O.A.P. does not have to wait until after the composition is finished to come into use. I believe that one of the most interesting ways to use S.O.A.P. is to draw a diagram first and

then attempt to create a piece that adheres to that diagram. I will take diagrams from previous works of mine and think ‘what would a new piece be like if there was an ‘A’ here?’, ‘or if I put a ‘P’ in the digital environment?’, ‘or what about an A that sits on the line between digital and performance environments? Is that even possible?’. Through asking these types of questions, I have been able to both expand the S.O.A.P. system as well as my own creative practice - creating works that I would not have conceived without such a prompt.

The multifunctional nature of S.O.A.P., both as an analysis tool and as a compositional tool, expands its practicality. Its focus on how different aspects of a composition are presented allows it to accommodate multiple sonic art forms and appeal to a wider range of sonic arts practitioners.

3. S.O.A.P. in Practice

Until recently, I was unable to define what distinguishes my compositional practice from others’. When I was introduced to acousmatic music in 2014, I was awestruck by the near limitless possibilities of sound and the instinctual nature of composing with sound surprised me the most. Although I was not using the standard foundations of chord progressions or tonality/atonality, I was able to compose freely, hearing in my ‘mind’s ear’ what should come next. It was like a return to the freedom of writing little melodies as a child, before I learned music theory. I quickly found myself overwhelmed by this freedom. Any sound could be manipulated in any number of ways and that was a daunting prospect. I believe that I work best when there are rules and restrictions in place and acousmatic music gave me the ability to choose my own rules, whether limiting my tools, the sound material, the process or a mixture of the three. I am always most creative when I work with restrictions.

Such conscious restrictions direct my creativity and sometimes force me to address my subconscious tendencies. In each work I composed while conducting this research, I have worked with limitations - some more restrictive than others. From this, I developed the S.O.A.P. framework that allowed me to notice my own compositional tendencies so that I may consciously develop these in future works.

4. End Matter

The S.O.A.P. framework is one that has come from my creative practice. I identified four common features of my compositions: space, objects, agency, and place and endeavoured to find a way of developing my practice while staying true to my style. I found the framework to be most useful in planning new compositions and I feel that the pieces I composed since finalising the framework demonstrate more creativity in the way they are performed than my earlier compositions.

The system proved to be particularly beneficial to me as my creative practice spans multiple media. I have learned through this that I gain the most enjoyment from experimenting with different performance formats as this can strengthen a theme or idea if done appropriately.

The S.O.A.P. framework could prove to be a useful tool for others as I feel that many compositions use the parameters of space, objects, agency, and place. Additionally, S.O.A.P. accounts for variations in artistic practice and media, making it relevant to a broader range of sonic arts practitioners. The system could also be adapted to suit the individual composer,

adding or subtracting elements where they feel necessary. The framework leads us to explore other means of presenting our work, honing in on or trying to move away from certain elements in order to create something new. Unlike many compositional frameworks, S.O.A.P. does not focus on each individual sound, rather it focuses on the bigger picture. Creating the diagram first may suggest interesting and unusual restrictions to the composer while still allowing them broad creative freedom over the types of sound that they use. I welcome any composers who may like to try my framework for themselves. I have personally found that this system challenges my creativity and spurs me to experiment with new formats and ideas and is something I will continue to use as my artistic practice expands.

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