SPOKEN FLUTE

Analysing the use of voice on flute playing

Tatiana Nunes Rosa

Live Electronics, MA

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Advisor: Jos Zwaanenburg

Research Coordinator: Yaniv Nachum

Non-plagiarism statement

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Tatiana Nunes Rosa

Amsterdam

February 15th, 2017

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1. Introduction

"From the first whimper to the final breath, the human voice creates sonorities that are so immediate and simple that they evoke infinite emotion for the listener." (Isherwood, 2013).

The introduction of electronics in music has brought new potentials to the world of composition. As mentioned in Isherwood's book *The techniques of singing*,

"(...) the advent of amplification has rendered effects audible in a large theatre which otherwise would have been difficult to use. When performing with a microphone, it is possible to whisper softly and have the sound be heard at the back of the hall".² (Isherwood, 2013).

In the specific case of the use of voice in flute playing, many of the techniques used by composers would not be successful without the use of amplification and electronics. As a live-electronics flute performer, soon I came across with some problematics related to the use of voice as part of your performance when you don't usually get any specific coaching on how to do it. In opposition to any other instrument, the flute gives the instrumentalist the possibility of combining the sound of the instrument together with the sound of the voice in many different ways. From the use of syllables or phonemes to speaking out a full text or singing, the flute allows us to manipulate the sound of the voice with different embouchures in a way that other wind instruments are unable to.

"The Western transverse flute is played with open embouchure - the mouthpiece is not inside the mouth of the player, as is the case with the recorder, ney, kaval, clarinet, saxophone, oboe and bassoon, for example. Consequently, it is quite easy for the flautist to speak, to whisper or to generate a breathing sound at the same time as making actual blowing movements.(...) speech is located in the very same area of the flautist's body as that of flute-sound production. Therefore, actually speaking (or whispering) while playing modifies the instrumental sound quality." (Hargreaves et al., 2011).

Throughout the 20th century many composers such as Takemitsu and Sciarrino made use of these techniques in works such as *Voice* (1971) and *Canzona di ringraziamento* (1985). It's

¹ Isherwood, N. (2013). *The techniques of singing.* London: Bärenreiter Kassel.

² Ibid.

³ Hargreaves, J., Howell, T., Rofe, M. (2011). Kaija Saariaho: Visions, Narratives, Dialogues. Surrey: TJ International Ltd.

accurate to say that these techniques became "(...) popular and commonly used by many composers of the time." (Lanz, 2010). However, by analysing most of the repertoire within this parameters, most composers preferred to conjugate it with electronics or amplification. The use of amplification creates new possibilities in which the flute music can now "(...) include the smallest perceivable sounds, the interior of sounds (...)" (Penny, 2009) and also allows a change from the traditional sound world of the flute, articulating this with the electronic sounds.

From my personal experience and from watching different approaches to these works from other performers I came to the conclusion that there's a lack of instructions on how to perform this kind of music. Usually the performer doesn't have enough background on using voice on stage and most of the time the scores also don't bring clear indications about what the performer should actually accomplish with the text written on it. As a classical performer we are used to specific guidance about every single note that we perform on the score, from simple things such as pitch and rhythm to dynamics and articulation, everything is clearly organised and written down in order to get the desired sonority from the instrumentalist. However, when voice and text are notated we usually find ourselves with a score lacking a lot of information, with instructions as simple as "spoken text" with no desired articulation, rhythm or pitch. In the end the performer finds himself on stage speaking as he would usually do it in a daily basis.

The main goal of this project is to analyse the works that make use of these techniques as well as making a bibliographic survey of the current work done by researchers in this field. The theoretical research will enable me to write an extensive analysis about the use of these techniques and the influence of them in flute playing in a performative way.

By the end of the project I aim to develop a simple method with some guidelines on how to approach these techniques as a musical performer as well as to write a piece using a new approach on how to notate this material on a musical score.

⁴ Lanz, M.R. (2010). *Silence: Exploring Salvatore Sciarrino's style through L'opera per flauto.* UNLV Theses/Dissertations/ Professional Papers/Capstones. University of Nevada, Las Vegas.

⁵ Penny, J. (2009). *The extended flautist: Techniques, technologies and performer perceptions in music for flute and electronics.* Doctoral dissertation, Queensland Conservatorium Griffith University.

2. Methods

Initially my research was based mainly on analysis of former academic works and musical compositions that also relate with different areas such as theatre and dance as they also share some common points in this field. In order to have an adequate view of the musical scene in this subject I narrowed my research to some of the most significant composers and authors of the last 100 years.

After the research work that was developed during the course of almost one year I worked on some suggestions for possible improvement on the area that relate mainly to notation issues and to the need of creating a practice routine on the contemporary performers of these works.

The main goal of my research was to survey the area in order to create something new that other people could also benefit from. The manual doesn't aim to replace any of the classical flute playing methods developed that explore these techniques but to work as a complement of the already existing works.

For my own experimentation and learning process I also composed a piece based on Samuel Beckett's theatre play *What Where* for flute, alto saxophone, tenor saxophone, reciter, electronics and video. On this piece, all of the performers have a different part on the play where the movement and text is scored in the same score as the musical part.

The manual SPOKEN FLUTE - A guide to combining voice and flute playing as well as the piece What Where can be found on the chapter Appendices.

3. Subject Background

In this chapter I will outline some of the major compositions that make use of voice as well as the criticism made by some authors on how performers approach these techniques. For that I decided to organise this chapter into smaller subchapters in which I approach the specificities of text as a music parameter, the role of amplification and electronics, the work of composers in the 20th and 21st century, the role of voice and movement in a work of a traditional performer and the importance of notation in this performative works.

3.1. Text as a music parameter

If we look at text as a sound parameter then the way an instrumentalist recites words written in their score becomes as important as any other note that is notated in such a complex and detailed way.

In his book *Building a character*, Stanislavsky refers to the problematics of how to speak a sentence in the world of theatre that, in my point of view, are easily related to what happens in the world of musical performance. He describes the importance of the musical parameters present in text that are so often neglected by the musicians as they are only concerned about the semantics of it, treating it differently from the rest of the musical material written on the score.

"It was only after I had realised that letters are only symbols of sounds, which require the carrying out of their content, that I found myself naturally confronted with the problem of learning these sound forms so that I should be better able to fill out their content." (Stanislavsky, 1948).

Approaching the text as part of the musical composition should be a priority and should be studied and practiced as much as any other content in the composition.

"How may different ways that phrase can be sung, and each time a new! (...). This is all helped by movements, facial expression and intonation. Such changes produce renewed moods, give new content to a whole phrase." (Stanislavsky, 1948).

By this point we can see already that dealing with text we need to realise both the musical aspects of how to say it and also the semantics of what is being translated to the audience.

The question that came to me at this point was, can we have the same notation of text for musicians as we have for actors in a play? According to Isherwood, "singing actors are sometimes required to speak in a musical contest. A wide variety of speaking timbres and intentions are possible, (...). In this case, the text is written as in a play, with no musical notation." (Isherwood, 2013). But how specific do the composer wants the performer to be? What do composers really want to achieve when using text in a musical performance? And most important of all, are we as performers/musicians really exploring the possibilities of text to its limit?

3.2. Amplification and electronics

As mentioned before, the introduction of electronics in music has definitely brought new potentials to the world of composition. With amplification inaudible sounds are now rendered audible, specially when referring to extended techniques both with voice and with your own instrument. Diphonic singing, multiphonics, whistling, tongue snaps and clicks, lip smacking, teeth chattering, chewing, gargling and breath sounds are now available as resources in a musical performance.

The use of amplification and electronics brought a whole new sonic world available both to the composer and the performer, and the extended techniques mentioned above came as resources that can be used by anyone and not only by a singer.

In her article "The voice as transcursive inscriber: The relation of body and instrument understood through the workings of a machine", Franziska Schroeder examines the timbral relationships created between vocal and instrumental sounds in the work *IKAS* (1982) for solo saxophone by Hans-Joachim Hespos. By analysing his work, Schroeder emphasises the relation between body, voice and instrument that become one.

"When thinking of ways in which an instrumentalist engages with his or her instrument, the notion of extension seems to be of vital significance. One thinks of the performer, the voice and the instrument as existing as a dynamic whole, in which the instrument is understood as an extension of the body. Let me elaborate on this: when a wind player produces a certain note, he or she thinks of the air that has been breathed in as building or emanating from 'below': the diaphragm is the 'starting place', which pushes the air upwards into the lungs. The air then gets pushed from the lungs through the vocal tract (this includes various parts, such as the larynx, the

uvula, the soft and hard palate, as well as throat, tongue, teeth and lips) into the mouthpiece of the instrument. For this passage from vocal cavity to instrument to be successful in the production of the desired sound, the vocal cavity has to be shaped to match the specifics of the instrument (the reed on the mouthpiece, the size of the instrument's neck and bell, for example). Once this has taken place the sound can become voiced, so to speak. Seen in this light, the voice becomes an 'extended reach', similarly seen in the newborn baby whose voice is a way of reaching the carer's attention" (Schroeder, 2006).

The development of electronics also lead to the first experiences on reproducing speech with sound synthesis which were quickly integrated in the world of music composition. An obvious example of that is the Vocoder, that simulates human voice with the use of oscillator, noise generators and different resonators with variable gain amplifiers that simulate the vocal tract. Once again, one of the problems of this technology, that was conceived with the purpose of facilitating telecommunications in the 30's was it's lack of authenticity compared to the real voice of the person that the instrument was mimicking. In the end, the vocoder remained as an artistic effect, dropping its original task of replacing human voice.

From the use of filters, reverberations, harmonisers, granular synthesis and other electronic effects on voice samples or live input, the way that composers approached the sound of the voice itself also changed. In his work *Automatic Writing*⁶, Robert Ashley, considers that the words themselves were not necessarily the primary source of meaning but that the use of voice and words for more than their explicit denotation, believing their rhythm and inflection could convey meaning without being able to understand the actual phonemes.

3.3. The role of voice and movement

When approaching the subject of spoken text is really easy to make a bridge with theatre and how actors approach the script before performing. Most commonly actors are asked to join musical pieces in the format of a reciter. When the spoken dialogue is free this not pose a problem, an example of that can be found in Stravinky's *L'Histoire du soldat*, where the composer simply writes the words in the score, leaving the interpretation and timing to the performer.

⁶ Ashley engineered the first version of the piece using live electronics and reactive computer circuitry. He recorded his vocal part himself, with the mic barely an inch from his mouth and the recording level just shy of feedback. He then added "subtle and eerie modulations" to the recording, modifying his voice to the point that much of what he read could not be understood.

LECTURE If n'y a pas, c'est un joli endroit... Le soldat s'assied au bord du ruisseau.

Figure 1 - L'histoire du Soldat - Igor Stravinsky

The reciter format can be come in different formats. It can be totally free, as the example above, it can be contained by a time frame, it can be a rhythmic speaking (figure 2),

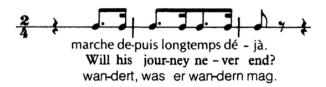


Figure 2 - L'histoire du Soldat - Igor Stravinsky

speaking with relative pitches (figure 3),

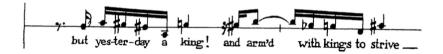


Figure 3 - Ode to Napoleon Buonaparte - Arnold Schönberg

or even speaking with notated rhythms, pitches and/or timbres (figure 4).

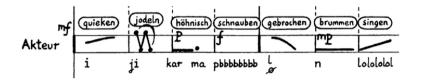


Figure 4 - Luzifers Zorn - Karlheinz Stockausen

In Grotowsky's vocal work in the 80's and 90's and that of his most talented follower, Eugenio Barba, are notable examples of how actors can vocalize in a remarkable way, producing sounds that are quite similar to some of those notated in scores by their contemporaries in the world of music. Also the director Tadashi Suzuki has his actors speak in a multiphonic growl inspired by Nô theatre, but popular in the works of contemporary composers as well. On the other hand, composers sometimes notate the gestures for singers.

In this case, the performer is faced with a new parameter to master, along with pitch, rhythm, dynamics, articulation, tempo and timbre. In figure 5 we can see an example of Stockhausen's *Reue* where the pitches indicate the height of the hands and arms, the encircled numbers above the notes indicate 13 different gestures, the lines on each circles indicate the lateral opening of the arms and the height of the head and the numbers below the notes indicate the intensity, represented by the distance of the hands in front of the body.

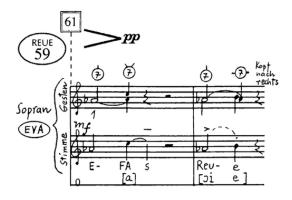


Figure 5 - Reue - Karlheinz Stockhausen

Observing this we can realise how the line between actor/singer/performer gradually grows thiner.

"Movement has become increasingly important and the contemporary singer should be physically fit, agile and able to use all of the expressive possibilities of his/her body, just as contemporary dancers and actors should know how to sing" (Isherwood, 2013).

In the quote above, Isherwood stresses the need of the contemporary singer to be expressive with his own body. In my personal opinion, Isherwood mentions singers particularly because of the tradition they have from Opera, but also because of the absence of an instrument to be busy with other than their own body. When you have no instrument to cover yourself with it is common that you realise even more how your presence on stage can be determinant for the whole performance.

As an example, in Kaija Saariaho's piece *Laconisme de l'aile* for flute and electronics, the performer is asked to speak out a text with a specific rhythm as you can see in figure 2.

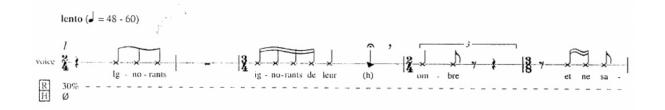


Figure 6 - Laconisme de L'aile - Kaija Saariaho

This is the very beginning of the piece, the flute player hasn't started to play his instrument yet. The performer is on stage, alone, possibly with the instrument on his hands but not making use of it yet or for the next 20 seconds. At this point, the performer probably realises how the communication with the audience, by the way of means other than playing, is so meaningful. From facial expression, to how to hold the flute or how to move the body, a different interpretation to the work is given. The flute player stops being only a musician and becomes a full performer.

3.4. 20th and 21st-Century Music

In the 20th and 21st-Century we have witnessed an increasing merge of different arts. Combining music with theatre, dance and visuals has become more and more a common practice and the contemporary musician should be prepared to deal with the new demands that these performances will ask from him.

"Instrumentalists are also called upon to sing. Those interested in playing contemporary music should take singing lessons. George Crumb frequently requires his instrumentalists to sing, speak and/or shout (...)" (Isherwood, 2013).

Although techniques such as singing into instruments go back to ancient times, they have been neglected by composers for centuries and only recently have been put into written compositions as a possibility to create new sounds.

Besides Crumb, other composers became widely known for the use of voice or movement in their works. Composers such Berio, Aphergis, Maxwell Davies and Lachenmann had a major importance in the development of works for voice making use of extended techniques and alternative notation. On the other hand, composers such as Kagel, Stockhausen and Cage had a complete revolutionary approach on how to stage music and again, on how to write it down

on a score. The most meaningful examples of this kind of work will be listed and analysed on chapters 4 and 5.

3.5. The importance of notation

Throughout our whole career as instrumentalists we aim at being the best as we can performing a score that is given to us. These scores contain a whole variety of information such as pitch, note duration, articulation, dynamics, and so on. All these different parameters are notated in a specific way that we get to learn since tender age.

Learning how to read music is a process that takes several years, the same way as it happens when you start learning a language, the knowledge is acquainted step by step. After all those steps are assimilated (pitch, duration, dynamics, articulation, etc.), the performer should find himself able to interpret a score full with meaningful information such as the one shown in figure 3.

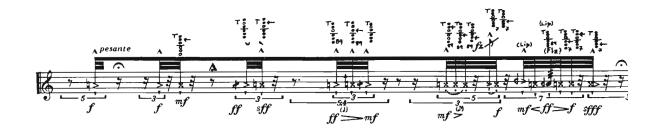


Figure 7 - Cassandra's Dream Song - Brian Ferneyhough

The previous example is an excerpt of a solo flute piece by the composer Brian Ferneyhough, known by his really complex and meticulous scores. Although this might be an extreme example of how detailed music notation can be, it is true that in contemporary music the level of information on score has grown higher and higher and performers are used to deal with that. On the other hand, that usually doesn't happen in the notation of voice in an instrumental piece. The level of precision on how to make it sound is usually not good enough. In the sonic world that a performer lives this lack of information leads usually to a poor interpretation and some lack of attention to how the text is sounding.

In his book *The 21st-Century Voice*, Edgerton emphasises the importance of notation in a fluid speech.

"Fluid speech production and manner is complex. Any notation must be a tradeoff between comprehensiveness and pragmatism, so a a performer needs information useful for producing a particular sound and its associated morphology." (Edgerton, 2004).

As musicians we are not used to analyse the text in a score as an actor analyses the text in a script. The actor spends hours and hours saying it in his head, saying it out loud, thinking how every syllable should be pronounced, what is the different emphasis on each word.

Different systems of notation have appeared but that also changes from composer to composer. On Crumb's work, Steinitz distinguishes that "(...) the superb calligraphy of his scores (published by Peters in facsimile) implies a remarkable harmony between the ear and the eye (...)". On the other hand, scores such as Berio's Sequenza, as you can see on figure 4, are so filled with information that might be too overwhelming for an instrumentalist that doesn't work with voice on a daily-basis.

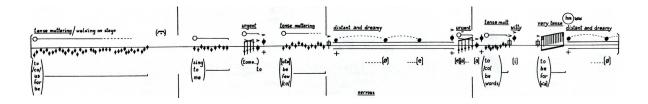


Figure 8 - Sequenza III - Luciano Berio

Other systems such as IPA⁷ could be incorporated in the notation but in the end the main issue is not how to pronounce the vowels and consonants but how to musically interpret the written text.

Designing a perfect notation system is probably an utopia. In the end, the most important thing to extract from these different examples is that the performer should be aware that part of the work will always be his. As it happens with music scores from the Classical Period, the lack of information in the score doesn't translate into a flat interpretation with no dynamics and articulation just because is not written down as precise as it is in a contemporary music score. If we look at the 2nd movement of Mozart's *Concerto in D Major* for flute, there are absolutely no instructions for the flute player in the first bars besides the pitch an rhythm,

⁷ The IPA, International Phonetic Alphabet, is an effective method of notation that offers relative precision for pronunciation, place, and manner.

though, every time we hear it something different is added by each player. We should look at text in the same way, with the same criticism. Even if there are no specific instructions we should be able to practice different intonations, position of the accents, articulations, dynamics, until we find one that suits the situation better.

4. Notating text and movement

This chapter is dedicated to the notation used nowadays on text and movement from theatrical texts and movement scores, this chapter works as a collection of different ways of notating text in different situations and also as a catalogue of some of the major works in the area of voice combined with instrumental playing. From voice to voice with instrument, theatre and dance we can find a wide variety of examples on how to approach this problematic according to the different needs of the composition.

Unfortunately in the next subchapters not all the works will be accompanied by a visual feedback of the notation. In the case of those works I decided to still incorporate them in these following chapters for their importance on the use of voice and movement together with other instruments.

4.1. Notation on vocal works

Automatic Writing - Robert Ashley

In the case of *Automatic Writing*⁸, Ashley used his own involuntary speech that results from his mild form of Tourette's Syndrome as one of the voices in the music. This was obviously considered a very different way of composing and producing music. There is no score available for this piece but a really interesting listening material on how to use the voice as an instrument combined and processed via electronic means.

tense multiering/walking on stage | Companies | Compa

Sequenza III and Circles - Luciano Berio

Figure 9 - Sequenza III - Luciano Berio

⁸ Robert Ashley's piece mentioned in a previous subchapter.

In my personal opinion, one of the most remarkable things in this score is the way Berio gives information to the performer about the emotional setting for each passage. Instructions such as tense, urgent and dreamy can make a big difference in the way the performer interprets the different passages.

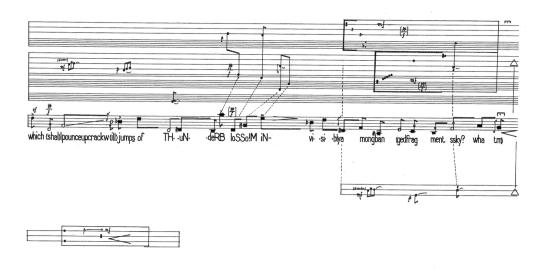


Figure 10 - Circles - Luciano Berio

The Vox Cycle - Trevor Wishart

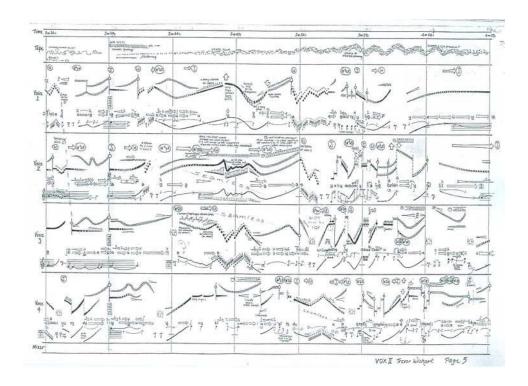


Figure 11 - The Vox Cycle - Trevor Wishart

In this score we find a graphic notation that is much more free than the ones by Berio, though we can still find a huge amount of information and instruction on how to perform it.

IJ MUD-WISCTOUS LU E-H GLORY (W) SHEM IN FELD UND WALD DO BEORRE SHEM IN FELD UND WALD DO BEORRE

WATER

WHY

THE COLD ASHES

Solos for Voice - John Cage

Figure 12 - Solo for Voice 12 - John Cage

FAR AND

On his *Solos for Voice*, Cage provides us with a wide variety of notations. Each solo is notated in a different way, giving a lot of freedom to the performer on how to do it. Before every solo there is an introductory page with instructions on how to read the score, making it a little bit more precise.

Recitations - Georges Aperghis

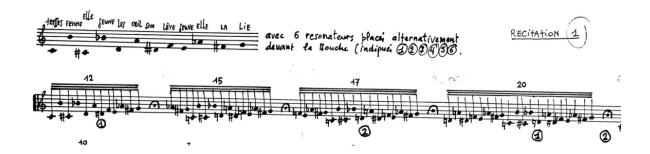


Figure 13 - Recitation 1 - Georges Aperghis

Similarly to what happened with Cage's *Solos for Voice*, Aperghis made the Recitations, where each piece has a different way of being notated. In the case of *Recitation 1* each pitch corresponds to a different syllable/word. In that way, every time he notates that specific pitch on the score the syllable/word should be sung together with the pitch.

Lady Lazarus - Daryl Runswick

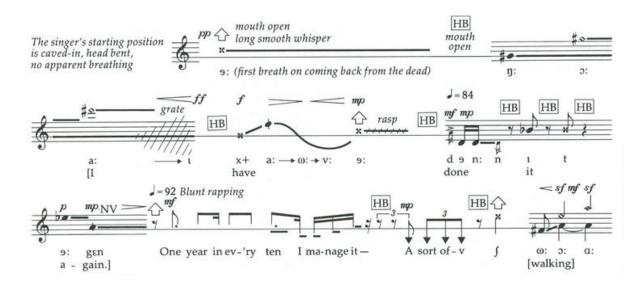


Figure 14 - Lady Lazarus - Daryl Runswick

This score makes use of different kinds of notation, the composer uses both graphic notation as well as the IPA and instructions on the emotional status of the performer.

8 Songs for a Mad King - Peter Maxwell Davies

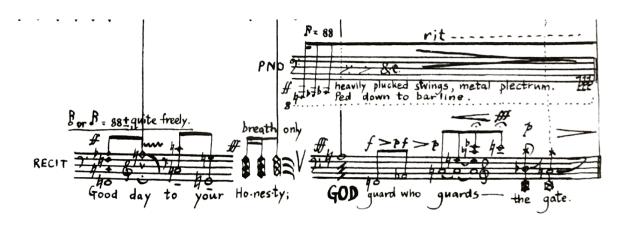


Figure 15 - 8 Songs for a Mad King - Peter Maxwell Davies

In his piece 8 Songs for a Mad King, Peter Maxwell Davies makes use of a lot of extended techniques. The use of capital letters suggest different emotions and throughout the score he also makes use of comments such as "wheedling" or "kingly!" evoking different states of spirit. This piece was originally written for the actor Roy Hart that became famous for his highly flexible voice and extensive vocal range.

4.2. Notation on works for flute and voice

temA - Helmut Lachenmann

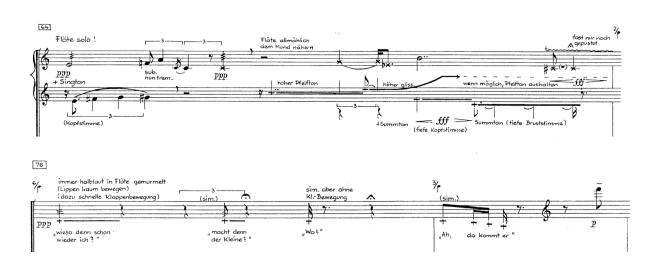


Figure 16 - temA - Helmut Lachenmann

In his trio *temA*, Lachenmann mixes the different timbres of the instrument in a way it's hard to distinguish when each one is playing. Both cello and flute also make use of their voice throughout the whole piece. Every time that happens, specific instructions are given on how to perform the text.

Lied - Heinz Holliger

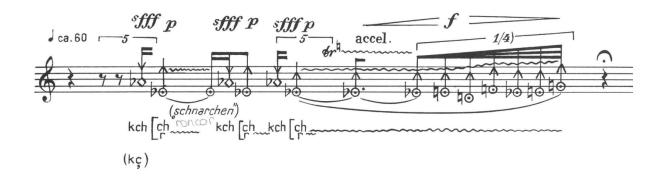


Figure 17 - Lied - Heinz Holliger

Holliger makes use of a very specific notation that is explained in the introductory notes. In the case above, the flute player has to inhale and exhale to the tube with the mouthpiece closed while pronouncing the syllables written below.

16 - Jason Eckardt

In the first part of this quartet, the flute player has a solo role where he makes a lot of use of his voice. Mainly breath sounds and accents with different consonants without ever speaking text as a whole sentence.

Voice - Toru Takemitsu

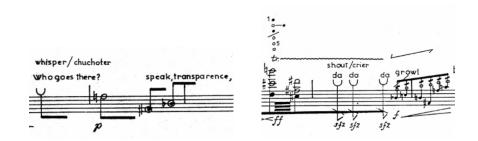


Figure 18 - Voice - Toru Takemitsu

In the example above the performer should combine flute playing with growling and speaking words with different placings of the lips on the embouchure.

L'arbitro, il merlo, il vaporetto che va a Ischia per flauto parlante - Sonia Bo

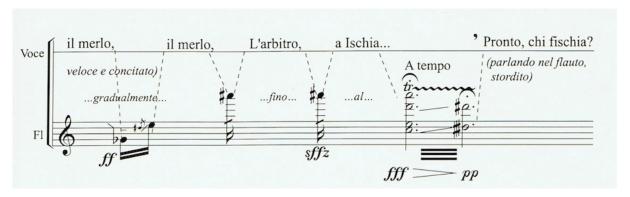


Figure 19 - L'arbitro, il merlo, il vaporetto che va a Ischia per flauto parlante - Sonia Bo

Sonia Bo makes use of very specific instructions on how to pronounce the text. Text and playing are two separate realities and are even notated in different staffs.

Laconisme de l'aile - Kaija Saariaho

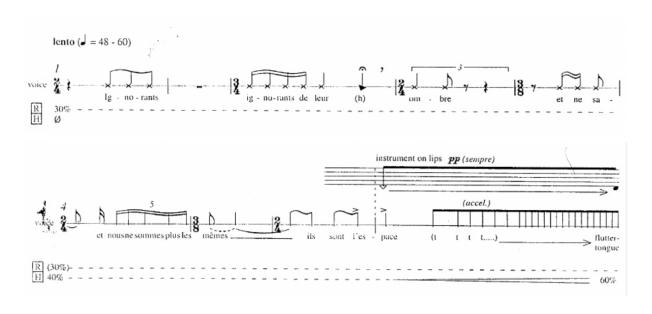


Figure 20 - Laconisme de l'aile - Kaija Saariaho

As mentioned in the previous chapter, on her work *Laconisme de l'aile*, Saariaho asks the performer to speak the text with the instructed rhythm, the transition from saying the text to the flute playing is really soft as the performer should gradually bring the flute to the lips while repeating a syllable that becomes a flatterzunge.

4.3. Other instruments and voice

Different ways of notating can also be found in works that put together others instruments and voice. In this subchapter you can find some examples that represent different notations in the case of different instruments.

Salut für Caudwell - Helmut Lachenmann

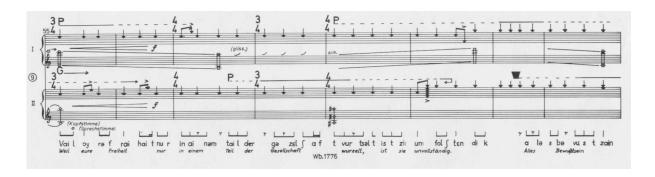


Figure 21 - Salut für Caudwell - Helmut Lachenmann

On his work *Salut für Caudwell*, Lachenmann asks the guitar player to combine the playing of the guitar together with the speaking of a text. The most curious thing about it is that, not only Lachenmann uses the IPA notation for it, but also, the sounds of each syllable match the sounds of the extended techniques applied on the guitar playing.

Songs, drones and refrains of death - George Crumb

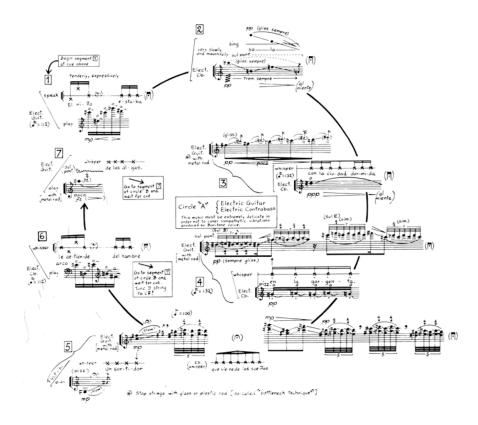


Figure 22 - Songs, drones and refrains of death - George Crumb

IKAS - Hans-Joachim Hespos

In this piece the saxophone player must combine his voice with the playing in a sort of a growl. The playing together with the singing/growling creates a new sound exploring the limits of the sonic world of the saxophone player.

Fidélité, harpiste seule regardée par un homme - Georges Aperghis

Besides the combination of the playing with the spoken text, in this work, Aperghis adds the theatrical element of the presence of a man on stage that should only be looked at by the harpist throughout the whole performance.

Failing - Tom Johnson

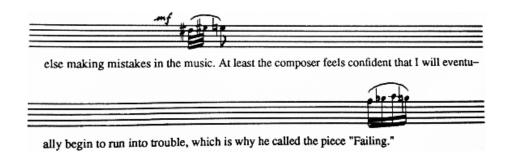


Figure 23 - Failing - Tom Johnson

In the case of Tom Johnson's piece, *Failing*, we can find a really open form of putting the text on a score. Johnson leaves the interpretation open to the performer giving him only the written text as it is, and writing the parts to be played on top of it.

4.4. Theatrical texts

Quad and Come and Go - Samuel Beckett

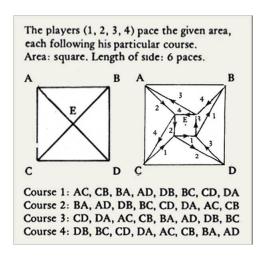


Figure 24 - Quad - Samuel Beckett

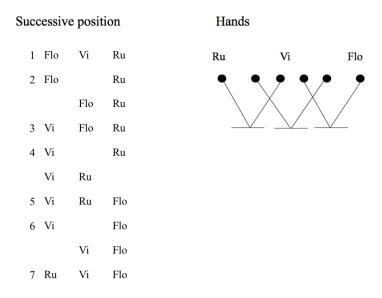


Figure 25 - Come and Go-Samuel Beckett

In his plays, Beckett usually notates the movement that should go on stage together with the script. Above you can find two examples of his works. In the first one, *Quad*, there is not even text involved while in the second, *Come and Go*, the text should be said together with the choreography that is given by the successive positions on stage and placing of the hands on each others laps.

Biomechanics Etudes - Vsevolod Meyerhold

Biomechanics is an approach to actor training and to theatre developed by Russian actor, director and teacher, Vsevolod Meyerhold during the 1920' and 1930's.

The training is highly systematic and sequential. Thus it begins with fairly simple exercises. In time actors are asked to do a great variety of exercises: work with objects such as balls and dowel rods, leaps and rolls over platforms and up and down ramps and stairs, and partner lifts and acrobatics. This phase of the work culminates in the study of the Classical Biomechanical Etudes. These are highly stylised movement pieces which Meyerhold choreographed as exercise material for his students.

4.5. Movement scores

In this subchapter you can find how movement is notated in different musical scores as well as the notation of movement in dance scores.

Musical Scores

Water Walk for Solo Television Performer - John Cage

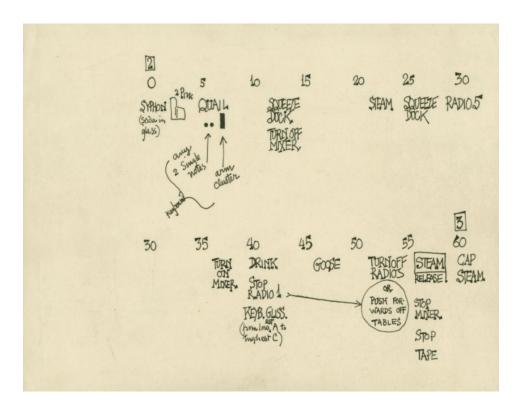


Figure 26 - Water Walk for Solo Television Performer - John Cage

As seen before in his *Solos for Voice*, Cage leaves a lot of space to the performer on how to read the score. It is a graphical score that gives a sense of timing together with the activity that should be developed on that time frame.

Corporel - Vinko Globokar

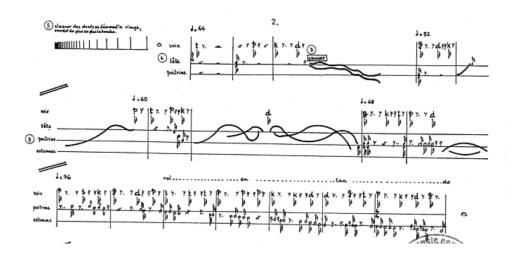


Figure 27 - Corporel - Vinko Globokar

Globokar gives precise instructions on how the performer should move, place his hands, speak and make percussive sounds throughout his body. Although this piece was written originally for a percussion player you can find other instrumentalists performing it nowadays.

Mug Grunt - Richard Orton

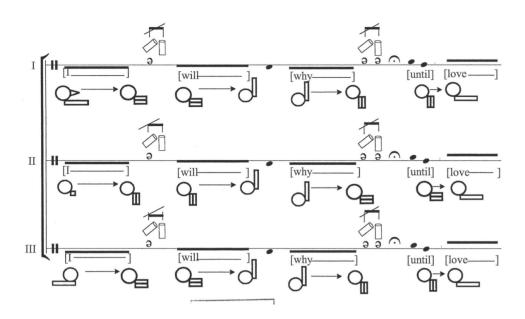


Figure 28 - Mug Grunt - Richard Orton

In this piece the performers elaborate a choreography with mugs, as the subtitle of the piece suggests, "for three male performers... each carrying a large mug".

Masks - Oliver Knussen

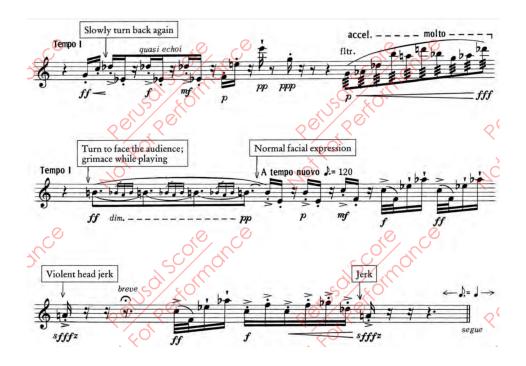


Figure 29 - Masks - Oliver Knussen

In *Masks*, Knussen gives specific instructions to the flute players on the movements that should be done throughout the whole piece. For that, Knussen writes the instructions on the score in the place that the movement should be done, together with the playing.

Atem - Mauricio Kagel

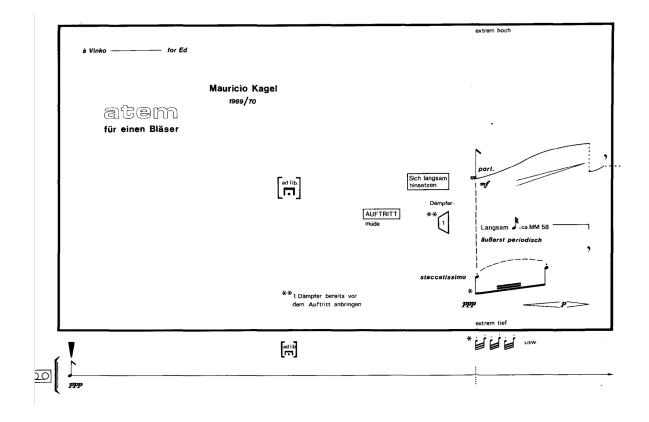


Figure 30 - Atem - Mauricio Kagel

On the other hand, in opposition on how Knussen notates the movement, Kagel gives the majority of his instructions in the introductory notes of the piece, in that way, the score itself focus mainly on the playing and not on the movement that must be engaged.

Dance Notation

Dance notation is the literature of dance, a symbol system for notating dance, just as in music the musical score. During the history of dance in Europe the notation of dance appeared first in the 15th century.

Entrec

Choregraphie - Raoul-Auger Feuillet

Figure 31 - Choregraphie - Raoul-Auger Feuillet

Images extracted from the latter half of *Choregraphie*, a book first published in 1700 which details a dance notation system invented by Raoul-Auger Feuillet which revolutionised the dance world. The system indicates the placement of the feet and six basic leg movements: plié, releveé, sauté, cabriole, tombé, and glissé. Changes of body direction and numerous ornamentations of the legs and arms are also part of the system which is based on tract drawings that trace the pattern of the dance. Additionally, bar lines in the dance score correspond to bar lines in the music score. Signs written on the right or left hand side of the tract indicate the steps.

Bournonville Ballet Sequences - Sutton

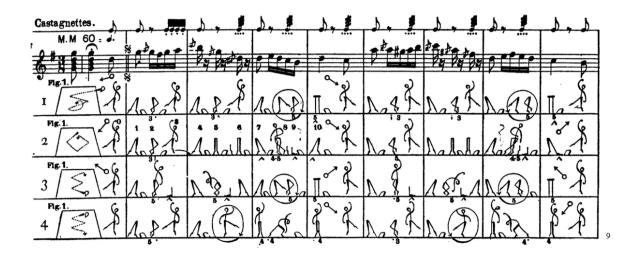


Figure 32 - Bournonville Ballet Sequences - Sutton

In Sutton's system, figures are depicted as literally as possible, with signs added to provide clarification for missing information. Movement here is drawn from the audience's point of view. No floor plans are given since this is a classroom exercise where the dancer stays virtually in the same place.

Bournonville Classical Ballet - Benesh

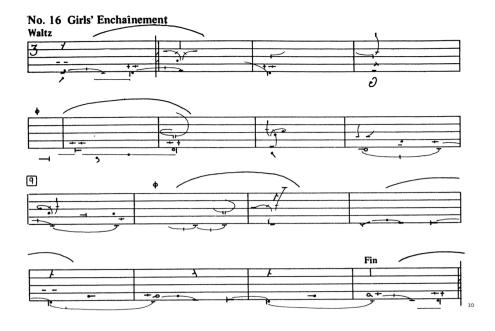


Figure 33 - Bournonville Classical Ballet - Benesh

The basically representational system developed by Joan and Rudolf Benesh is more abstracted than that above, but one can see movement lines in the ballet sequence above. This classroom exercise shows the single figure as viewed from behind. Movement lines connect the location of the limb extremities.

Speaking Dance - Matteo Fargion



Figure 34 - Speaking Dance - Matteo Fargion

The previous examples can be compared to our classical music notation. Different ways of notating that were established in different eras. This example resembles more the contemporary practice of our times. Forgone uses a system of his own that works with him and the people that work with him. He established a way of notating his movements on stage that he uses in all of his works. This is one of the examples, *Speaking Dance*.

Labanotation

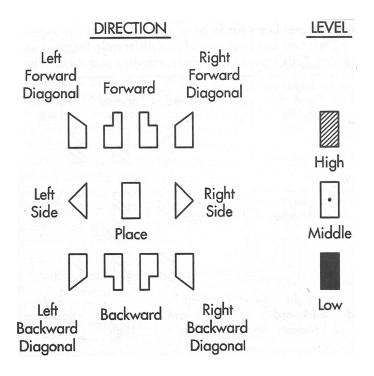


Figure 35 - Labanotation

In the current days is also important to mention the Labanotation, a system of analysing and recording of human movement. The basis is natural human motion, and every change from this natural human motion (for example, turned-out legs) has to be specifically written down in the notation.

5. My work

After the research I made over the last year, I decided I wanted to develop a method on how to incorporate voice and movement in the daily practice of our instruments. Also, in the last few year I've become more and more interested in composing so I decided to give it a try and compose a piece that makes use of all the topics approached in my researched. With that, "What Where" was born.

5.1. Spoken Flute - A guide to combining voice and flute playing

As the title suggests, this guide is meant mainly for flute players. The exercises where developed having in mind the limitations and possibilities of the flute but that doesn't mean that it cannot be applicable to other instruments. The main goal of this guide is to make the performer aware of these questions more than the exercises itself. Mainly the exercises brings you awareness of how you are using your voice and body while you combine them with your instrument.

The guide is divided into four main chapters: Spoken text; Singing and playing; Voice, flute and motion; Examples from the repertoire.

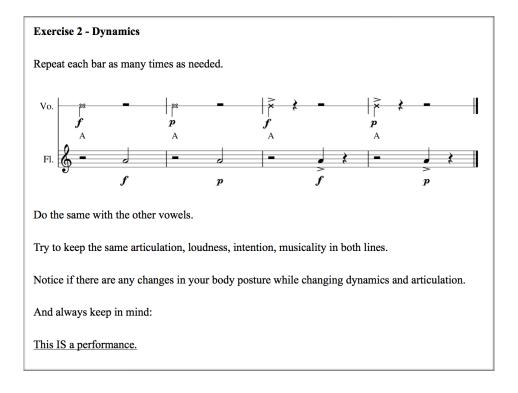


Figure 36 - Excerpt from Spoken Flute - A guide to combining voice and flute playing

In the previous excerpt you can see the applicability of the book to any other instrumentalist.

The task relates on how you approach voicing in opposition on how you play a single note in

your instrument.

Most of the exercises relay on these ideas more than musical exercises. They are about

awareness and making the performer speak out loud the text that is on the score. In many

situation the performer doesn't even practice the text part before the concert itself. These

exercises makes the performer incorporate the vocalisation of syllables, phonemes or words in

the same way they do it with scales, arpeggios and other technique exercises, making it more

natural to then reproduce it on stage.

5.2. What Where

Based on Samuel Beckett's play What Where, I decided to compose a piece that makes use of

instrumental playing, voice, movement, electronics and video. Both the text and the

movement are based strictly on the play.

To each instrument a role in the play is related:

Pre-recorded tape - Voice of Bam

Flute - Bem

Alto saxophone - Bim

Tenor Saxophone - Bom

Electric Bass Guitar - Bam

Throughout the whole piece the text appears notated in three different ways: free, as in a

fermata, this can be performed by one of the instrumentalists or by the pre-recorded

electronics; free within a time frame, the text must be said in a free way but contained within

a time frame; rhythmically notated.

In the following example you can see two types of this notation, the free and the rhythmically

notated ones.

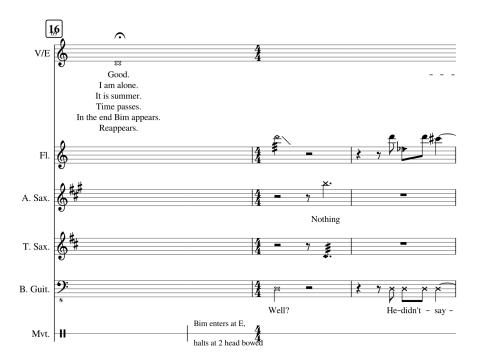


Figure 37 - What Where - Tatiana Rosa

The last line consist of the movement that should be going on stage. The movement corresponds exactly to what is written originally in the play.

6. Conclusions and recommendations

With this study I was able to research and analyse the factors that influence the lack of quality in some of the performances of pieces that combine voice and instrumental playing.

Throughout my research I was able to define that two of the most meaningful reasons why this practice is still in such a embryonic stage relate to the inappropriate notation on how to use these techniques as well as a lack of incorporating these methods in a regular practice.

This research brings a new way to look into this problematic, approaching the subject and analysing the flaws and variety of works that already make use of these techniques as well as compelling a new guide on how to incorporate these techniques in a daily practice.

In the end, this research approaches only the tip of the iceberg with a lot more work to be done in the field. Creating a new notation system and a method that could fit any instrument would be something to work on in a near future and that's something I would like to develop in cooperation with composers and other instrumentalists.

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8. Appendices

- 1. Spoken Flute A guide to combining voice and flute playing
- 2. What Where