

Flute Extended Techniques

My search, is about the contemporary playing techniques for the flute. For this reason, I am going to present not the common, but the extended playing techniques for the flute, accompanied with new music notation and giving a complete description with instructions to handle them. Furthermore, I am creating a guide for those composers who are interested in using the flute in a different way than the common one. This book includes not only definitions and instructions of the modern effects between 20th and 21st century, but also examples of notation for each technique. I am presenting effects that change the tone color of the flute, effects that change the vibration of the air stream, techniques that present the flute as a percussive instrument and others that include the voice of the flutist. The last pages complete my book with information about instructions and notation that should accompany the scores when it comes to electronic parts.



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Eirini Mavrogiannaki

Flute Extended Techniques

A Guide for Composers

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ABSTRACT

Flute Extended Techniques: A Guide for Composers

Many composers have considered the flute as their favorite instrument. Its tone is deemed by many composers as poetic not only for its soft tone in the low and middle area, but also for its brightness in the high area. The combination of its beautiful sound and the variety of many, different playing techniques give composers the opportunity to experiment more with this instrument in search for special sounds, speaking and playing or singing and playing.

My search, is about the contemporary playing techniques for the flute. For this reason, I am going to present not the common, but the extended playing techniques for the flute, accompanied with new music notation and giving a complete description with instructions to handle them. Furthermore, I am creating a guide for those composers who are interested in using the flute in a different way than the common one. This thesis includes not only definitions and instructions of the modern effects between 20th and 21st century, but also examples of notation for each technique. I am presenting effects that change the tone color of the flute, effects that change the vibration of the air stream, techniques that present the flute as a percussive instrument and others that include the voice of the flutist. The last pages complete my thesis with information about instructions and notation that should accompany the scores when it comes to electronic parts.

DEDICATION

I dedicate this paper to my mother, Vaso Frantzeskou, who always believed in herself and realized her dreams to become a doctor. Now, she believes in me to realize mine. Thank you mother for supporting wholeheartedly my master studies in Anton Bruckner Private University and you were always next to me as a doctor, as an audience, as a woman, as a friend, as a mother...

Life plays strange games with you. Sometimes pleasant, sometimes unpleasant and sometimes it combines both of these feelings at the same time. I still remember that night when I received the call to participate in the Thessaloniki's Concert Hall as a composer, where that night I was mourning the loss of my grandfather. I asked him to take away my pain. I considered it as a gift from him, so I dedicated the whole work to his memory, based on his profession, the profession of a "tailor". After two years, I suddenly received a message of interest from *OmniScriptum Publishing House* to publish my thesis in a book. It wasn't until I was 29 that most of my dreams came true, always with God's help. Because you don't become a happy person because of money, but because you have managed to do in your life everything you wanted. And I wonder, how do the events of human life come together? Certainly the combinations in a composition for orchestra are not random. So I continue to wonder, how well does our own Composer take care of us to combine a pleasant event upon an unpleasant one in our life? How well can we understand His Sinfonia? His Work always continues *da capo*. Life plays strange games with you... until it reaches *al fine*.

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INTRODUCTION

“The first thing you see on looking into a deep well is your own face and this is at least disconcerting. Longer looking reveals what is further in the well. Even there are vexed to discover another face which is also yours. Even while you are bearing your idea for your next composition, the past may come up, total recall without pretense, and not always pretty. You need to adjust to the fact that there will be more of this in the future – bad critics, not well-performed concerts etc. If you want to leave, is understandable, but is still a matter of regret, because you are just on the point of getting to know yourself.”¹ The wise composers, instead, would smile quietly, develop their creativity idea while thinking all the music on its all.²

It often takes time to create a good work. However, the deadlines that are given from the companies or the universities and the composition contests that direct your creativity make composers forget their purpose by making them limiting their freedom. I agree with Matthew Ketly who says in his book *Flute solo* that “many people may tell you to hurry on, to move on, to come on – if you surrender to guilt and agree with the voices outside, then the heart returns to its old unhappiness, the old fare, the old routine. And only for a while, just long enough to taper off the din of a world come in with you. It does not take long. Sometimes a quiet craft, or a drawing, or a painting. Sometimes a candle will help. Some darkness. It is the dark that gives point to our ears, for in the dark not yet used to, we see too much.”³

The past two centuries, some composers required performers to learn new playing techniques of producing sound with the flute. One problem that had not been entirely solved at that point was how to notate many of those new techniques. Some techniques had been required of all performers, including tapping on the instrument or on some other surface, whistling, and a wide variety of vocal sounds. In these cases, the performer had the role of a percussionist, whistler, or vocalist, instead of a flutist.⁴

Allow me to believe, that the creation of new music is often “computational”. Music is not so simple anymore. We believe that our purpose today, is to experiment with technology and compose something brand new, that wasn’t heard before, aiming to become at last pioneers. We forget that this is not the case, is not a purpose to compose something new. For me, composition is my voice to communicate with the audience and express ideas that plague today’s society. Who is able to understand, understands.

According to the flutist Eftihia Victoria Arkoudis “the classical and avant-garde aesthetics blended with emerging Jazz idioms, the songwriting business of Tin Pan Alley, and the music of Broadway and movies, bringing forth a bustling commercial industry”.⁵ She continues saying, that “the concurrence and merging of so many

¹ Matthew Ketly, *Flute Solo*, Kansas, 1979, p. 5.

² Ibid.

³ Ibid., p. 3.

⁴ Ibid., p. 222.

⁵ Eftihia Victoria Arkoudis, “Contemporary music Notation for the Flute: A Unified Guide to Notational Symbols for Composers and Performers”, Ph.D. diss., West Virginia University, 2019, p. 1.

Extract in G sharp minor
Not recommended



1.4. Buzz Tone

Another technique that demands much pressure, is the technique Buzz Tone. If a composer wants to imitate the sound of a trumpet, then the Buzz Tone technique is recommended.⁶⁰ “It is also known as *trumpet-embouchure*. The sound is produced through the combination of lip tension, air pressure, and the space in the oral cavity, while either blowing into the embouchureholes or removing the head joint and blowing into the upper part of the flute body, as if it is a trumpet. It is usually notated with the words *trumpet attack*, *buzz* or *BZ* and its notation is considered standard.”⁶¹ This modern technique is notated with a different-shaped notehead in order to distinguish it from ordinary notes. “It is extremely important to explain a special technique in words (Figure 7). Non pitched sounds are clearest placed at the top or bottom of the staff. If groups of non-standard noteheads are difficult to read, use crosses through stems instead (Figure 8).”⁶²

Figure 7: Explanation of the technique of *Buzz Tone* in words.⁶³

Detach mouthpiece from instrument,
buzz through mouthpiece (approx. pitches)

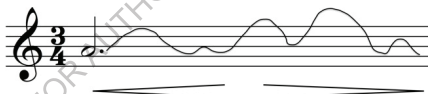


Figure 8: Alternative notation of *Buzz Tones*, using crosses through stems.



1.5. Bamboo Tones

If a composer would like to add a warm, windy sound to the flute, then the technique of *Bamboo Tones* will do the magic. A book that refers to studies dealing with this extended technique, was published by the composer and flutist Wil Offermans, who supports that bamboo tones have a warm, hollow, windy sound and are produced

⁶⁰ Howard Risatti, *New Music Signs for contemporary Music*, Illinois: University of Illinois Press, 1975, p. 28.

⁶¹ Arkoudis, p. 46.

⁶² Gould, p. 248.

⁶³ *Ibid.*, p. 249.

Figure 41: Text or Phonemes without the IPA.

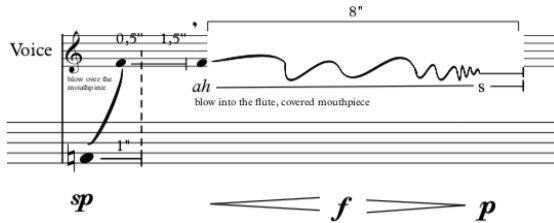


Figure 42: Text or Phonemes without the IPA, providing footnotes.



4.3.3. Changing vowels

An arrow between vowels indicates a gradual change of vowel. The arrow also shows the length of the transition between one vowel and the next. Despite a vowel change, each note with unchanged pitch may be tied, indicating no separate articulation.¹¹⁴ The flutist or any performer can navigate vowel or text-containing works easily and quickly with clear and detailed instructions. The composer succeeds in using and giving not only the definition, but also the placing and of course the use. Where practical, definitions are given where terminology is unusual or even confusing, while the text is handled as a progression from the elementary to the complex. "Terminal text that is in a foreign language are used where they are in common usage in the English-speaking world (as shown above) and such terms are often presented in the usage in *italics*, although they might appear in roman type in a musical context."¹¹⁵

I agree with Elaine Gould, who says that "effective communication results from establishing a convention and adopting a consistent approach. Where new conventions are not established we make our own recommendations. Our aim is to raise awareness

¹¹⁴ Ibid., p. 450.

¹¹⁵ Gould, p. xiv.

2.2. Circular Breathing

As far as the technique of *circular breathing* is concerned, the flutist continues breathing without interrupting the flow of music.⁷⁵ The flutist Eftihia Arkoudis says that “someone who has mastered this extremely challenging technique will be able to perform longer phrases, with essentially one breath. What is mainly involved is the mouth, the tongue, and the cheeks. For a more detailed and educational approach to circular breathing, an invaluable source is Robert Dick’s *Circular Breathing for the Flutist* (1987).”⁷⁶ This technique can be used on all flutes. Some other repertoire which include circular breathing is *For the contemporary Flutist* by Wil Offermans and *A practice book for the flute 6* by Trevor Wye.⁷⁷

Figure 15: Symbols of Circular Breathing.⁷⁸



The above three signs indicate the effect of circular breathing. The first symbol shows that the flutist should breathe through the nose. The second sign indicates that the flutist should start inflating the cheeks the exact moment. The third sign describes the same as the others, but it functions also as a reminders for circular breathing because of its circular shape.⁷⁹

Of course this technique can be also performed with sound. For this reason, there are some symbols that help the flutist understand whether to combine this effect with or no sound. Some composers, as we explained earlier in aeolian sound, prefer the capital letter R for Residual Tone, the letter “aeolian” written above the notes or even the combination of a triangle with a common note. However, when it comes to the air without pitch, they prefer to use the stripes, the triangle notehead or a perfect circle as a notehead.⁸⁰

It is of highly importance to remember that there is not a standard name of this flute technique. This effect, as some other techniques, has different names. The air with pitch can be seen as Residual Tone, Aeolian Sound or Souffle, while the same effect without sound can be seen as Wind Tone, Ghost Tone, Air Tone or Breath Tone.⁸¹

⁷⁵ Arkoudis, p. 49.

⁷⁶ Ibid.

⁷⁷ Rogier Pijper, “Circular Breathing”, <https://www.flutecolors.com/techniques/circular-breathing/> (accessed in November 2022).

⁷⁸ Arkoudis, p. 50.

⁷⁹ Rogier Pijper, “Circular Breathing”, <https://www.flutecolors.com/techniques/circular-breathing/> (accessed in November 2022).






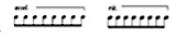
⁸⁰ Arkoudis, p. 49.

⁸¹ Ibid.

musician interacts according always to his / her improvisation skills. Although this work of mine is not based on improvisation, I let some musicians improvise, according to the passages shown in the video. I also provided instructions to those musicians were afraid to improvise or feel insecure. In this way, the musicians learn their inner self in interpreting music. This work is an animated video, is entitled “Reminders of Life” and I gave specific instructions to the flutist to whisper the word “life” inside the flute, accompanying it with Whistle Tones. Sometimes the flutist speaks the words “father” and “mother” inside the instrument, because the parents create life which is considered a present by God, combining these words with the technique of Circular Breathing. Since this work is about life, I used the flutist’s voice and the ensemble’s breath to create a living environment, an environment that there is not just one life, but many other souls as well. All these instructions and techniques are given in a single animated video through synchronicity, symbols and the colors. It is very important as composers to understand whether to use standard notation or electronic notation. We need to decide which way is the best to communicate with the performers and give away our thoughts to the audience.

Figure 51: Instructions and Graphic Score for Animated Video “Reminders of life”.



	Voice	Flute	Violin	Cello	Double Bass	Vibraphone	Harp	Piano
 Time remark	-	-	-	-	-	motor on (slow) hold pedal	-	hold pedal
	All ensemble: 3 seconds pause/stop playing for 3 seconds							
	Ritardando with triplet: play only the last 3 notes in a triplet. Play the previous notes in ritardando. For ex:  * play = sing (for voice)							
	<i>acc. & rit.</i> / Combine <i>acc.</i> with <i>rit.</i> / Play the first notes <i>acc.</i> and the last notes <i>rit.</i> For ex.  * play = sing (for voice)							

What is efficient about graphic illustration, is the description of contrast and change of timbre, because it is difficult to get these characteristics fit into traditional notation. Through electronic notation a composer can illustrate duration of textures,

Figure 53: Creating many melodic lines from one flute.

senza tempo

Flute Tape 15"

Flute Tape *pp*

Flute Tape *pp*

Flute *f* *ff* *p*

Figure 54: Recording with changed speeds.

Flute *p* *cresc.* *f*

Flute Tape start tape

Figure 55: Notate only the entrances of the tape part.

Flute

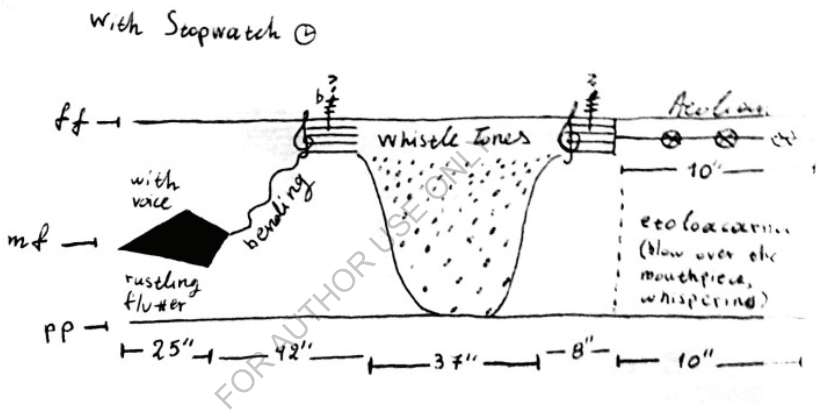
Flute Tape start tape *8va* *2x*

Flute Tape start tape *x1/2*

However, detailed information about the processing used is the most important aspect of any translation or porting.

In order to interact with the audio source, there are several spatial movements designed with precise rhythmic characters, such as short complexes, ritardando/accelerando, obtrusive characters, and slow/fast moving contrasts.¹⁵¹ It is of highly importance to provide as much information as possible about the technology and the process used to perform or transmitting a work. Of course, the descriptions are good, but there is no need to depend on words alone to explain the notation. It is best to include documentation on the electronics' technology, equipment, and processing in the score.¹⁵²

Figure 59: Pattern density and different textures.



¹⁵¹ Ibid., p. 58.

¹⁵² Ibid., p. 64.