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6

CONTRIBUTION TO UNDERSTANDING THE
REPERTOIRE OF FLUTE MUSIC WRITTEN AFTER 1950
THROUGH ANALYSIS UNDER THE MAIN ASPECT
OF VARIATIONS ON DENSITY 21.5 BY
EDGARD VARÈSE AND ÉLÉGIE POUR FLÛTE
BY MARC-ANDRÉ DALBAVIE

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ПРИНОС КЪМ ИЗЯСНЯВАНЕТО НА ФЛЕЙТОВИЯ
РЕПЕРТОАР, НАПИСАН СЛЕД 1950, ЧРЕЗ АНАЛИЗ НА
ВАРИАЦИИ ВЪРХУ DENSITY 21.5 ОТ EDGARD VARÈSE
И ÉLÉGIE POUR FLÛTE ОТ MARC-ANDRÉ DALBAVIE

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Abstract: The epoch of new music for flute is less researched and less structured than the preceding periods in music history. To research music of the 21st century, a bridge must be first built from the already known research results of repertoire written around the time of World War II to the not so well-known end of the 20th century. Two works for solo flute are used for this purpose: *Density 21.5* by Edgard VARÈSE written in 1936/1946 and *Élégie pour flûte* by Marc-André DALBAVIE written in 1990. The analysis, with a special consideration of the use of variation in these pieces, shows that the further development of the soundscape of the flute is contested in compositional terms through the extreme use of flute tones themselves (for example notes in the fourth octave) and variable elements found in the small elements like intervals or rhythmic. The detailed examination of the previously unexplored work *Élégie pour flute* by DALBAVIE shows that a further development of the sound aesthetics is not achieved primarily through variable elements in the composition itself, but through variable elements in the sound structure that are used on bigger elements like whole phrases: extended techniques on the flute. The comparison of the two works presents the soundscape transformation in the flute literature between 1946 and the end of the 20th century which clearly differs in the use of variation. It is a progression away from the use of purely note-related elements towards an aesthetic that has a tonal and effective expression through the sound design of the flute.

Keywords: new music for flute, sound transformation of flute, variation in flute repertoire, extended techniques for flute.

Резюме: Епохата на новата музика за флейта е по-слабо изследвана и по-малко структурирана от предходните периоди в историята на музиката. За да се проучи музиката на XXI век, първо трябва да се изгради мост между вече установените резултати от изследванията на репертоара, написан по времето на Втората световна война, и не толкова известните от края на XX век. За тази цел са използвани две произведения за соло флейта: *Density 21.5* на Едгар Варез, написано през

1936/1946, и *Élégie pour flûte* на Марк-Андре Далбавие, написана през 1990. Анализът, при който е обърнато специално внимание на употребата на вариации в тези произведения, показва, че по-нататъшното развитие на флейтовото звукоизвличане е оспорвано в композиционно отношение чрез екстремна употреба на високите тонове на флейтата (например ноти в четвърта октава) и различни елементи, които се срещат в малките компоненти като интервали или ритмика. Подробното разглеждане на неизследваното досега произведение *Élégie pour flute* от DALBAVIE показва, че по-нататъшното развитие на звуковата естетика не се постига на първо място чрез вариационни елементи в самата композиция, а чрез вариационни елементи в звуковата структура, които се използват върху по-големи елементи като цели фрази: разгърнатата флейтова техника. Сравнението на двете творби представя трансформацията на звуковия пейзаж във флейтовата литература между 1946 и края на XX в., която ясно се различава в използването на вариативността. Това е преход от използването на елементи, свързани единствено с нотите, към естетика, която има тонален и въздействащ израз чрез звуковия дизайн на флейтата.

Ключови думи: нова музика за флейта, звукова трансформация на флейтата, вариации във флейтовия репертоар, разширени техники за флейта.

Introduction

The youngest part of music history – the music of the present – comes out as the section in which it is not a matter of course to differentiate between the individual music parts. The analysis of classical or baroque works, for example, and the findings of the comparatively long practice of these represent a standard with regards to analysis in musical education today. Considered analogously to contemporary music, this basic understanding must be expanded further. The music before 1950 and its common classifications are part of the natural understanding

of music analysis. Transmitted to the period of contemporary music after 1950 the results which enable a lot of orientation until this point on the timeline are not transferable one to one to the music of the late 20th and the 21st century. It still needs a lot of research work on the pieces of – roughly classified – the last 7 decades. The repertoire of this period is large, not clearly structured yet and still not fully assigned. The actual classification of contemporary music is mainly reduced to its few basic features, which relate to the music-historical priorities of the 20th and 21st centuries. In relation to the fact that there are only little results of research on new music in comparison to earlier music periods, the musical field after 1945 appears diverse but also confusing. This requires a further examination of the abundance of works from this period. Jürgen HABERMAS³ term about the ‘new complexity’ which is particularly referred to the postmodernism⁴ may be mentioned at this point. [Hiekel, Utz 2016, p. IX] The focus in this scientific examination is directed on the flute repertoire after 1945. The main method of the research will be a comparison between two pieces for flute solo which includes an analyse under the aspect of how variation is used in these works. Especially the analysis of the variable elements shall help to outline the new invented language of the flute sound and the style of composition. The chosen works hold a function of exemplary moments of the contemporary flute repertoire that represent few but meaningful cornerstones of the flute music after 1945. To create a fundamental insight into the common language of the contemporary repertoire for flute solo it is necessary to mark a point on the timeline where already some results of further research exist and one point from which on it is more difficult to maintain orientation in the big field of new music after 1945 and its diverse faces to enlarge the knowledge about flute music in the last millennium based on the comparison. An influential aspect of the two pieces that are chosen for is the year of composition. One of the pieces was written at the beginning of the new music period shortly before World War II started. The piece that is used for comparison was

³ Jürgen HABERMAS (*1929) Is a German philosopher and sociologist of the present.

⁴ 20th century.

written at the end of the 20th century. The results of this research shall help to create a guideline to understand the development of flute music after 1945 until the end of the 20th century as a starting point to build the required knowledge to continue the research on the flute repertoire in the 21st century. To focus on variation in works for flute is one possibility of approaching selected works. The word 'variation' comes from the Latin word 'variatio' and means 'change, transformation' what emphasizes the development of the flute and the enlarged repertoire written for this instrument. [Chlosta 2020]

The flute as a role model of changings

As the repertoire of music for flute has increased a lot after World War II, also a new repertoire of flute sounds and an expanded way of writing these sound skills down as well were created in response to the latest historical events. The general changes in the sound aesthetics were intensely reflected on the flute. This instrument improved a lot in its sound language and the works for flute solo multiplied. [Farwick 2009, p. 45] While the flute had a postponed role in the classical and romantic epochs due to its limited tone, the flute becomes one of those instruments that suits the willingness to experiment and evolve best. [Gümbel 1947, p. 2] More and more musicians specialize in new music, also in the field of flutists which leads to a growing virtuosity in the contemporary repertoire because they invented several new options to enlarge the repertoire and the spectrum of flute sounds. [Kolneder 1979, p. 79] The results of trials and experiments reached a kind of climax around 1960. The present repertoire of extended techniques for flute still includes the outcome from this intense phase. [Farwick 2009, p. 47] Even though the considerations of Robert DICK⁵ were printed in the original language only in 1986, the main message would also have appropriately described the upcoming developments in 1960. DICK summarized that – from the point of view of a flutist – the second half of the 20th century is the phase of growth and change. He also speaks about leaving limitations behind, no matter if they are related to technical or mental/visualizing limits. [Dick 1993, p. 7] As Arnold SCHÖNBERG already wrote in his book

⁵ Robert DICK (*1950) is an US-American flutist and composer.

Harmonielehre: „The material of music is the sound.” He also explained that every effect this sound can make has to be accepted as an element of art, which influences the form – and the sound itself is a part of the form – of the piece. [Schönberg 1922, p.17] Beside this SCHÖNBERG describes that the timbre has the biggest potential to be developed and that this can be measured at how big the difference between the traditional (flute) sound and the new effect is. [Gümbel 2005, p. 122]

Two landmarks in the field of new flute music in the second half of the 20th century: *Density 21.5* by Edgard VARÈSE and *Élégie pour flûte* by Marc-André DALBAVIE

Composed in 1936 *Density 21.5* by Edgard VARÈSE is one of the two⁶ most important works for flute solo that are mentioned when the early beginnings of new music for flute are subject of the discussion. According to the fact that the timespan of World War II is from 1939 until 1945, *Density 21.5* was written before/during⁷ the decisive wartime. VARÈSE created a composition that broke the boundaries of the way of playing flute until this time. The elements he used to reach these extremes were excessive dynamic ranges, rhythmic, key clicks, and an intense combination of sounds. The colour of the flute sounds was kind of a ‘limit experience’ on the wood instrument. Holding the role of a key changer in the history of repertoire for flute, *Density 21.5* was the main topic of many analytic works. For this it is possible to create a quick resume based on results of further research: most of the elements that evolved over the following 50 years were already found in the composition of VARÈSE in 1936/1946. [Artaud 1986, p. 44] An example of a piece that introduces the most common modern flute effects that are used and known also nowadays, is the piece *Élégie pour flute* written by Marc-André DALBAVIE⁸ in 1990. DALBAVIE created this piece for a collection named *flûte et creations* by Pierre-André VALADE⁹, who asked

⁶ The second piece for flute solo written in 1936 is *Cinq Incantations* by André JOLIVET. Both pieces mark the very beginnings of a new idea of sound aesthetics.

⁷ The flutist Georges BARRÈRE requested a piece for the inauguration of his platinum flute in 1936. VARÈSE revised his piece in 1946.

⁸ Marc-André DALBAVIE (*1961) is a French composer.

⁹ Pierre-André VALADE (*1959) is a French musician. His first career was as a

different composers to write in total 15 contemporary pieces for flute solo. Already at the end of the 20th century there were a lot of different directions in the contemporary music which resulted from the enormous new possibilities of creating flute sounds. VALADE's *flûtes et creations* is an example for the variety in the repertoire of contemporary flute music. [Valade 1990] Until today it was not possible to find a standardized form of notation that works on every piece. Only a view signs are more well-known symbols, but at the end it depends on the composer what kind of notation is meant for which sound effect. The way sound effects are played is not always the same: the variety is unlimited and connected to the idea behind the piece. [Gümbel 2005, p. 122] On the one hand the collection of VALADE's pieces introduces some modern techniques, on the other hand – and this was his main idea – it shows the big variety of new music for flute within 'only' 15 pieces¹⁰. He wanted to bring the focus away only from learning to play new techniques to the aesthetics of the compositions and musical ideas. [Valade 1990]

Analysis of *Density 21.5* by Edgard VARÈSE with a special focus on variable elements

The main inspiration to create this work for flute alone was the fact that Georges BARRÈRE¹¹ wanted VARÈSE to write a piece for him which he could play with a flute made of platin. This material gave the opportunity to play with the minimums and maximums of the dynamics and the sound of the flute to the composer. [Scheck 1975, p. 235] *Density 21.5* and the pieces written after it have a composition style that is linear. Something noticeable about this solo piece is that the use of extended techniques is limited. [Artaud 1986, p. 46] The first phrase (bar 1-3) of *Density 21.5* is an indication for how intense dynamics are used in a very flexible and unpredictable way. In comparison with the following small phrase (bar 3-5) it is clear the dynamic ranges are positioned in an arranged way to bring out special notes. The focus in the first phrase

flutist with focus on contemporary repertoire, then he continued as a conductor.

¹⁰ Remembering that the repertoire of new music for flute is a broad field.

¹¹ Georges BARRÈRE was a student of the French flutist Paul TAFFANEL. The art patron, pianist and enthusiast of new music Elizabeth SPRAGUE COOKLIDGE gave a platin flute to BARRÈRE as a present.

is on the f' sharp which is introducing the tritone c' sharp to g' in the second phrase. Beside the tritone also the quarte (f' sharp to c' sharp) will have a guiding role in *Density 21.5*, but because of the dynamic range of piano, these intervals step into the background in the beginning of the piece even though they are important motives. In the rhythmical structure there is a triplet, which – like the intervals that are still in the background – are not too outstanding because of the articulation: the legato smoothens the pregnant rhythm of the triplet, decrescendo and piano supports this strategy in the first lines of the composition for flute. Following the dynamics in the first three bars, the places that are written with a more intense dynamic create a short chromatic line including the notes f', f' sharp and g'. This moment of a hidden melodic line in the main phrase also includes the thought of a leading tone, which is the f' sharp. The combination all of it represents a powerful and artistic melody full of energy. The first bars of *Density 21.5* are an example of variation in the contemporary music for flute. The material of phrase number two is like what is used in phrase number one, but bars 3-5 are a light version of repetition with variation because of the minimal different arrangement of notes and the different used dynamics to create a main focus. The length of the first phrase and the second is for both two and a half bars. In the second phrase there are more triplets which lead to a smoother and tighter impression in this variable repetition. More and more notes get included from bar six on. Most of them are positioned in the main motive to emphasize the varied phrase. With this system the notes a', b' flat, c'', d'' flat and d'', and d''' sharp and e''' appear until bar 14, underlined from dynamics that expand into fortissimo in the third octave (bar 14). With the focus on the element of variation, bar 15-17 are another point in *Density 21.5* where the main phrase is used in a variable way: the direction of the intervals is mirrored and the used material of notes is again enlarging with f'', f'' sharp and g'''. The following bars 18-22 are also constructions of material that has been introduced in the lines before, using smaller rhythmical elements and intervals like the tritone. After this part A (bar 1-23) comes a part A1 (bar 23-28) which is like a contrast caused by the dynamics and the space between the notes and motives. Part A1 represents a quiet scene with more breaks and another soundscape in general. Here the extended technique of key clicks is used

the first time in *Density 21.5*. The only well-known element in this part is the triplets, which remind on the main theme from part A. From bar 29 on starts a second main part called part B in a similar proportion than part A. In relation to part A and part B part A1 seems like a parting line that prepares the audience for the following variation of the main phrase and motives. Part B shows elements from part A in an intense form. The direct comparison shows amongst other things: bar 1 starts with mezzo forte, bar 29 starts with fortissimo. Bar 1 includes sixteenths, bar 29 uses thirty-seconds. Bar 1 starts in a low register, bar 29 starts in a high register. The notes of bar 1 move up, the notes of bar 29 move down. Part B represents itself in a diminished way of variable use of the material of the main phrase in Part A. This diminution has the effect of a climax in the middle of the piece. The atmosphere is even more powerful than in the beginning, the mirrored and falling lines seem to be more hectic and faster. Part A seems to present the low register and intervals like tritone and quart, part B shows the high register and is formed by intervals that are consonant like pure fifth, small third. Around bar 30 there is a flashback to the f, f sharp and g material from the beginning hidden as g, f sharp and e sharp. The range of notes reaches until a in the third octave. Bars 38-40 forward to the recapitulation where the main phrase from Part A is used, but a half tone step higher and with rhythmical variations on the lengths of the notes and breaks. In bar 46 the highest sound of the piece in form of d in the third octave supported form triplet structures is reached before a tritone downwards marks the beginning of the last lines to surprise one last time at the very end when an intense crescendo leads to the third octave. The last phrase (bar 58-61) is like a summarise of all the used principles in the composition of VARÈSE. The pool of notes was already fully presented when four bars before the end finally the lowest note (c') appears. [Scheck 1975, p. 235f]

Analysis of *Élégie pour flûte* by Marc-André DALBAVIE focused on variable elements

After getting used to the motives and the idea behind *Density 21.5*, working on *Élégie pour flûte* triggered some associations. Simply from comparing the scores it seems like *Density 21.5* and *Élégie pour flûte* have some common things. The most noticeable point was that the

elements DALBAVIE uses in his composition are positioned in different 'extreme' zones related to the piece itself. The first phrase starts in a low register with an intense dynamic range of fortissimo combined with marcato accents (element 1) to reach a high point that starts with piano to enlarge the dynamics (element 2) to move into a fortissimo passage with small notes in staccato going downwards (element 3) before this collage of sounds disappears in a break with a fermata (element 4). Only this short description of the first line of *Élégie pour flûte* shows that this piece is playing with the extremes of different elements in a similar way than *Density 21.5*. There are no time signatures and no barlines in *Élégie pour flûte*. A metronomic indication to count the quarter in 52 is the only instruction how to measure and count. The idea of variation can also be found in *Élégie pour flûte*. While in VARÈSE's composition variable moments are hidden in smaller motives, more combined to the tone material itself that creates the side effect of a variation of sounds, the piece of DALBAVIE shows the opposite. The variable elements in *Élégie pour flûte* are not found so much in the tone material but in the sound material: Whole phrases are used in a very similar tone and rhythmical system but in very different vocabularies of sound, which leads to the conclusion: *Élégie pour flûte* is a variation of flute sounds through extended techniques. The summary of the used techniques by DALBAVIE results that all the possible basic sounds of the new flute language can be found in his piece: multi-phonetic sound, tremolo trill, 'normal' trill, pizzicato effect, staccato without natural flute sound, micro trill, flutter tongue. Compared to *Density 21.5* it seems like *Élégie pour flûte* is a further development of the idea of VARÈSE that is inspired by introducing the possibilities through the material of the flute. DALBAVIE introduces all the possible sounds in 1990 which are still the fundament of compositions nowadays, inspired by the flute sound itself. A more detailed analysis will concretize the variation of sound within whole phrases: the first phrase of *Élégie pour flûte* is the first line starting from *c'* until the quarter rest with the fermata, so called phrase A. Phrase A has an organized structure made of four elements starting from the main note *c'*. This low note marks a starting and destination point some more often in the piece. [Valade 1990] The base note *c'* starts with two quarter beats and follows a rhythmical variation

in eights, triplets in eights, syncope rhythm and sixths that turns out to indicate a written *accelerando*. The rhythmical metamorphosis of the c' reaches out to a multi-phonic sound which has the base note c". The first extended technique that is used in this piece. The multi-phonic sound starts with a piano but turns immediately into a crescendo to follow the fortissimo sixty-fourth downwards in staccato to surprisingly stop in a fermata. This structure is also used in phrase B, the second line. The only difference in phrase B is a sound variation of phrase A. Element one (the c' with a rhythmical structure to lead to element 2, some effect) is again c' with fortissimo, but the written *accelerando* varies. The start note has a fermata followed by a triplet in eights and sixth, the *accelerando* is a bit more intense over the fact that a run of sixty-fourth upwards speed up into a tremolo that contains the base note c" and changes to e flat in the second octave. This is the next used 'modern' effect: trills that are written over intervals bigger than a great second. Element two of phrase B is like element two of phrase A but varies in the effect: instead of a multi-phonic sound with the base note c" a 'classic' trill over a half note step on c" is written. Element three is a run of sixty-fourth downwards but varies also in the sound effect: pizzicato over a nearly similar material of notes. The end of phrase B is like in phrase A one quarter rest with a fermata. Phrase C which includes line three, is still following this structure but the first idea starts to get broken. The low c is cut after the first quarter beat from a sixty-fourth downwards to meet eights and a combination of triplets in eights but also a run upwards to the climax of this phrase which is g" that immediately goes down in a chromatic scale until it reaches the low c' as a quarter note followed by a quarter rest topped with a fermata. These three phrases A, B and C are a first big part of the piece which is separated through line number four. This line has no reference to phrase A, B or C and not to the following lines, which are kind of a second part including a reprise of the first part (or reopening the ideas of the first part). In contrast to line one, two and three line four parts where the effect of staccato is forced but the notes are not given. Pretending to be one 'bar', line four has six defined notes out of the second and third octaves that are placed with different space between each other. This line number four reminds on bars 23-28 in *Density 21.5* that just create a kind of parting line to introduce the second part of the

piece where similar material is used but in a different way. Also the use of second and third octave notes combined with *sforzato* reminds on the language of *Density 21.5*. Line number 5 of *Élégie pour flûte* contains the fortissimo run of sixty-fourths downwards, but the other elements are different. Longer notes like half notes and whole notes appear, rests that create enlarging spaces are now written down. This line presents the normal sound of flute without any special effect. This is another point where a similarity to *Density 21.5* can be found: normal flute sounds are compared with extreme dynamics. In *Élégie pour flûte* it is required to play *pianissimo* and *piano pianissimo* in the second and third octave. In contrast to the first part where all the rests at the end of the lines where not defined in the lengths, the ‘empty’ space between the normal flute sound is given. According to the idea of speeding up with the notes in the first part the lengths of the rests enlarge in the second part of DALVABIE’s composition. An irregular micro trill starts the return to the basic note *c*’ with another variation of a written *accelerando* to speed up and slow down again, to surprisingly close the piece with three different notes than the basic note: *f*’, *c*’ sharp and *a*’. The ending can be compared with *Density 21.5* too. In the last 5 bars of VARESE’s composition, where the lowest point is reached, the line goes up into the third octave again. Something similar is found in *Élégie pour flûte* with the fact that *c*’ is not the end although it is the base of the whole piece.

Conclusion

An optical comparison between *Density 21.5* and *Élégie pour flûte* immediately reveals by only putting the scores side by side that *Élégie pour flûte* contains much more extended techniques than *Density 21.5*. The pure sound of the flute in *Density 21.5* is mostly presented through variation elements inside the small note components of the main phrases. The whole form of VARESE’s composition for flute solo seems to have more ‘classical’ structure inside than the first impress suggests. The first phrase of *Density 21.5* appears as a main phrase which is used through the whole piece in the style of classic variations like mirroring or using different notes but keeping the intervals. Even though these elements of classic variation can be found in this piece, also variations of the pure

flute sounds are topic of this work. This idea of variation fits even more to *Élégie pour flûte* by Marc-André DALBAVIE. The classical way of variation is not found so much in his piece, but on the big phrases that vary with the flute effects it is obvious that DALBAVIE was arranging nearly all flute effects to show the actual possibilities of the flute. It is more like a collage of sound, that is based on arranged material. *Élégie pour flûte* could also be assigned to a more formal construction but related to the fact that DALBAVIE later did a lot of work with spectral sounds, his work for flute solo matches more the idea of a variation of sound. As in *Density 21.5* the variation of the pure flute sound equates with the development of the sound repertoire and compositions as a transformation of the traditional (flute) sound aesthetics, VARÈSE created a substantially amount of material of new shades of sound and inspiration, that functioned as a base in further compositions for flute. The composition of *Élégie pour flûte* started at a completely different point of sound language than *Density 21.5*. The evolution of the sounds and effects itself was nearly finished apart from experiments of flute and electronics in comparison how long it took to establish the traditional sound aesthetics in further music history periods. The new possibilities of sounds were far not exhausted yet, on the contrary: *Élégie pour flûte* revealed another element of transformation that was to compose and create with a focus on the relationship between the different sound components in an artistic and aesthetic way. The main aspect is not on the material but on the idea behind the composition of how contemporary flute effects can be used. Although both pieces are characterized by an intense transformative character, they still differ in their focal points: the density of the sound, through which VARÈSE created a new soundscape to present the extreme possibilities of the (platin) flute tone, creates the transformation process in *Density 21.5*, whereas in DALBAVIE's composition *Élégie pour flûte* the handling of the quality of the sound based on contemporary flute effects is decisive for the transformation characteristic.

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