Master’s Thesis

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Creation of Versions for a Pre-composed Tune

Utilizing Procedures of Folk Music

Telemark University College

Faculty of Art, Folk Culture and Teacher Education

Master's Thesis in Traditional Arts/Music 2013

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1 Introduction

When I was studying composition we had many subjects and techniques to learn about, and we needed to apply them under different circumstances to create music. At that point, I was always wondering, how was I supposed to create music? How was I supposed to use all of this information? One day, during my composition lesson, I asked my very old and classically formed teacher these questions, to be honest I was expecting some kind of technical oriented answer, but he surprised me saying something like: “you know? Composing is the same as improvising, but you write it down”.
That thought has been in my mind ever since, and it has helped me realize that musical creativity can be exercised in multiple ways…

When I started to get familiar with the study of traditional music I saw that creativity was not an issue that gathered much attention. Instead, it was the concept of variation what I felt was regarded as more adequate to name changes in the constituent musical parameters of a tune. Furthermore, I saw that the efforts were put mostly in conservation of the musical material, rather than in the creation of new items for it.

The concept of having an array of tunes that are related to each other became an issue that deeply took my attention. I thought it was a rather sophisticated way of displaying creativity, not only because of the production of different musical pieces, but also because of the ability to maintain a level of constancy that supported the idea of them being related. I thought it would be an exiting experience to try and elaborate a creative experience pointed in that direction…
Departing from the hypothesis that the process of aurally transmitting a tune to an individual would produce difference between the structure of the model tune and its reproduction. And trying to utilize the characteristics and potentialities that individual musicians have, as a musical filter, where the pitch and rhythm differences between the input musical data and the output musical data could be considered as new traits. I commenced the process of elaborating a method to somehow utilize these variations in order to create different versions of the same tune.

In order to explain the origin of this creative approach, I develop a discussion around the concepts of “Tune Family”, “Composition” and “Improvisation”. The discussion is focused on displaying certain relationships between the concepts in question.

The “tune family” chapter intends to, in the first place, establish a relation between this work and the world of traditional music, and in the second place, start suggesting that a separation between style features and core melodic traits of a melody could somehow be made. Moreover, that the influence of the stylistic customs of and individual could be able to cause differentiation between versions of a melody, while the constancy of some core traits (pitch and durations) could help on maintaining the stability among those versions.

In the “Composition and Improvisation” chapter I suggest that these two processes that are able to produce variation and differentiation in the music, are somehow defined by the same kind of characteristics, and it is a matter of how the ratios and degree in which those characteristics are displayed, what in general has been the most important for their classification.

The concepts of Composition and Improvisation are understood as part of any creative activity and capable of coexisting in it. The discussion intends to prepare the reader to face the development of the practical part of the thesis. It intends to reveal the ideas in which the design of that musical experience is based. And to stimulate a kind of understanding in which human creative processes in music should be considered as an integral and organic experience.

The practical part of the project (The Creative Process) consists in the construction of variations for a melody. This process is constituted by a series of steps; the creation of an original melody, aural transmission of the melody, transcription of the recorded reproductions, treatment of motivic material collected and construction of versions of the original.

2 Objectives and Questions

The objective of the following work is to create a series of related melodies that have one common ancestor. By aurally transmitting a pre-composed original melody to different individuals, gathering the motivic variations that could appear at the moment of its reproduction, and utilizing those variations in the construction of versions.

Can a multi-step creative experience like this be utilized to elaborate variations of a melody?
How could a creative experience like this help on revealing information about melodic variation?

3 The Tune Family Concept

The existence of Tune Families is in general more than less accepted by people related to the study of traditional music, and at the same time the existence of multiple versions of the "same" tune is often considered one of the most representative holders of the richness of the traditional music repertoire.

> "Organized attempts to deal with variation and change in traditional melody arose mostly in the United States, under the rubric of a new concept: that of "tune family." The metaphor had been used before - George Petrie (1855) . . . but the first real tune-family study (although it was not identified as such at the time) was published in 1937 by Phillips Barry (1937b) . . . This was one of the first scholarly attempts to deal in an organized way with tunes which show similarities of overall contour despite other melodic differences." [1]

But was Samuel P. Bayard who through his writings started setting the theoretical bases towards a coherent "tune family" theory.

3.1 The Samuel P. Bayard´s view:

Samuel P. Bayard, in his most well known essay "Prolegomena to a Study of the Principal Melodic Families of British-American Folksong" (Bayard 1950), gives account of the assumptions that led him into the study of cognate melodies separated from their associated text, it appeared to him that the melodies where in need of being studied separately due to the large variety of them and the differences existent between the kind of variations found among texts, compared to the ones encountered among the melodies (for him, the challenges of studying the melodies were quite more difficult to overcome than the ones correspondent to the study of text).

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[1] **Cowdery, James.** *The Melodic Tradition of Ireland.* The Kent University Press, Kent, Ohio, 1990. P 82.

Alongside with describing quite in a detailed way his thoughts about why those tunes are found in so many multiple related variants, he develops a definition for the concept “tune family”. Which among others, I will try to utilize in my work.

In this sense is important to make clear that even though Bayard´s study is deeply concerned with the British-American Folksong tradition, I will try to focus my attention in the ideas that are likely to be applied to more general contexts. In general the mechanisms he suggests as relevant in the process of variation that the “tune families” show.

In his text, what becomes quite evident after a while, is his idea that some clusters of tune variants must have been developed from some sort of “original”* melody…

* In this paper I use the word “original” to refer to Bayard´s concept of a melody that is at some point “settled”, either being “composed as “new” tunes by some persons at some times in the past”[2] or raised “by endless variation out of some older mass of airs- and once a thoroughly congenial form or outline had been attained, it stayed in popular memory and spread by oral diffusion”[3]

> “Sooner or later we must face the fact that our folk-musical tradition is pervaded not only by unmistakably formulaic details in the tunes, but also by versions of quite individualized melodies.”[4]
>
> “it is exceedingly hard to see how the features … possessed in common by closely similar tune-groups can be parts of any style, unless that style is underlain by and has its foundation in one archetypal, individual tune, of which all the members of the groups would then be variants or derivatives.”[5]

When confronted to the suggestion that the similitude within groups of tunes might obey to stylistic reasons. In other words, that “similar tunes” could arise due to independent creative efforts within a common way of constructing or designing melodies.

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[2] **Bayard, Samuel P.** *“Prolegomena to a Study of the Principal Melodic Families of British-American Folksong”.* The Journal of American Folklore, Vol. 63, No. 247 (Jan. - Mar., 1950), p 31. http://www.jstor.org/stable/537347

[3] Ibid. P 31.
[4] Ibid. P 9.
[5] Ibid. P 7.

He explains it not by assuming the tunes were created under one main stylistic current and therefore under a mass "similar composing" status in the area where the style predominates. Instead, he believes that the groups of melodies under scrutiny have evolved into different versions from one common ancestor, and that it is the exposure to the stylistic concepts correspondent to the group of people that uses them what produces their differentiation. He says a tune would have "naturally recreated in the musical style of the region which adopted it[6]"

In that context he enumerates a series of what he calls "important recurring types of melodic variation"[7], attaching to them the function of reshaping the various versions of a tune. And afterwards he spends quite a long piece of text to discuss around one of those types of melodic variation; "the corruption" type…

> "Eighth: Corrupt rendition, the result of faulty learning and bad performance of a tune. Corruption we can actually see only when it thoroughly up- sets the balance and coherence of a tune. But it may also give occasion for redeeming re-creation. In a process like that, however, any tune may conceivably be varied so much that its original features may be lost, and another tune evolved, I suggest that some of our folk tunes may possibly have arisen from just such processes which by their very postulated nature would, of course, be impossible to trace."

As it can be read in the paragraph above, the importance of this type of variation mechanism for him, relies on its "effectiveness", its ability to create huge variations and perhaps absolutely "new" tunes. (This particular source of melodic variation is being highlighted due to its influence on the kind of melodic treatment exercised on chapter 4)

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[6] Ibid. P 37.

[7] Ibid. P 17. First: An unusually long melodic jump up or down…

Second: A strong alteration in the tempo or pace of a tune…

Third: A marked alteration in rhythm, and a contraction or prolongation of tune-line or phrase…

Fourth: The translation of a tune-version from one mode into another…

Fifth: The influence of other melodies contemporarily current in tradition…

Sixth: Repetitiveness…

Seventh: The transposition of tune-phrases or strains…

Eighth: Corrupt rendition, the result of faulty learning and bad performance of a tune…

He develops a 12-step hypothesis showing the kind of mechanisms and possible routes that a melody could have followed on its way in the oral transmission chain. How those paths, and the different kind of individuals the melody has been through could have influenced the "original" melody, to produce the large array of different versions of tunes that he finds among the studied material. This is a point where he is mainly explaining the manner, in which he thinks the formation of "tune families" process could have actually been. Finally he reaches the point of giving a definition for the "tune family" concept that looks as follows:

> "A tune family is a group of melodies showing basic interrelation by means of constant melodic correspondence, and presumably owing their mutual likeness to descent from a single air that has assumed multiple forms through processes of variation, imitation, and assimilation" [8]

Within this definition, I recognize three parts that are useful for my work. First; the idea of a group of related melodies, Second; these melodies come from one, Third; the processes that create the situation (oral transmission).

This early definition of the concept is forged from the study of the large amount of traditional song tunes that Bayard had been immerse into at that time. And thereby it is meant to fit the necessities of such kind of studies. I understand it as an attempt to find the best way of dealing with those great amounts of collected melodic data, to identify and categorize it.

3.2 Connections:

I feel that "tune family" is a very wide concept. In my case, quite easy to *imagine* in operation but very difficult to study. It involves too many angles to be studied within the margins of a single discipline, and in addition, the variety of circumstances and individual contributions involved in a process as such can create a very blurry scenario to dare to deep in. As pointed out by James Cowdery; “Is this task indeed too onerous, or is it simply an endless game, meaningless outside the halls of academia?”[9]. Yet there are some ideas and concepts that I find interesting and stimulating to work with…

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[8] **Bayard, Samuel P.** *"Prolegomena to a Study of the Principal Melodic Families of British-American Folksong".* The Journal of American Folklore, Vol. 63, No. 247 (Jan. - Mar., 1950), p 33. http://www.jstor.org/stable/537347

Here I want to address some issues that are quite difficult to approach but are unavoidable connected to this project. These issues are also among the most criticized ideas in Bayard´s essay.

3.2.1 “Style”

He even tried to avoid the actual word “style”. He believed that style features were not so relevant when talking about the traits that bound and relate versions of a melody. The kind of traits that remain still recognizable even after a melody has been through those 8 types of melodic variation listed before. He believes that the stylistic customs of a group of people are indeed an important part of the ground from which those variations come from.

So from that perspective we need to assume the existence of a sort of limit line between those features that are more “stable” (those that would not be so susceptible to change due to style), and those that are “stylistic” (characteristic to the musical affairs of a group of people). Of course I have to guess that most of us are not able to see this “limit line” at all, it is a line that somehow needs to be *created*.

It seems to me that the distinction between these two parts of a process is a phenomenon that we can observe anywhere when transmission of a melody is occurring. The musical background of any individual will be reflected on the material that she/he is working with. And at the same time, the musical material will continue to keep its main properties. Well, easy to say… but does one part ends when the other begins? Can we even trace a definite line to separate the two sides? I´m not to answer those questions but to reflect around the issue. I´ll come back to discuss it in the next chapters…

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[9] **Cowdery, James.** *The Melodic Tradition of Ireland.* The Kent University Press, Kent, Ohio, 1990. P 88.

3.2.2 “The Original”

It is impossible to know if this “original” melody actually existed as a recognizable starting point for a chain of oral transmission and its variations. I mean the “historical moment” when this “pure” tune was “released into the folk world” for it to be used, re-worked and re-created. That moment might have existed or might have not, and it is not my interest to find out the truth in that matter.
Bayard, when describing his idea of a “starting point melody” also talks about a melody that could have evolved from an older “mass of airs” as he calls it, and once it finally reached its definite form, it would have stayed in popular memory and started spreading orally. This is even harder to prove and difficult to accept for quite obvious reasons, how can a continuous process, as the one is described in his writings, at some point be marked with the sole aim of having a settled version of a tune? It might be true that some version of a tune at some point in time became “the one”, perhaps thanks to a really outstanding performer that had developed it, or thanks to being part of a theatrical show or any popular spectacle. But those conditions wouldn’t erase its melodic heritage neither isolate the version as settled for a “new” beginning.

(It would have proved important to identify exactly how did a tune looked like at some point in the past in order to corroborate some parts of Bayard´s theory. But since such a melody is impossible to track, it seems that the assumption of its existence could just be stealing attention from the ideas presented about the actual phenomenon of evolution of melodic material and mechanisms of variation involved in the process. Because it is not the tunes that develop by themselves, it is the nature of human musical processing exercised on the melodies what can, and often do, enrich the musical outcome.)

** The “original” is always there, in the form of the melody that someone hear and learn, of course this “original” is so only in this particular “transmission” moment.*

3.3 Duration/Pitch structure vs. Style?

To separate stylistic features from “core” melodic traits, and to find the “original” tune sounds like impossible in the context of folk music. But for me as a ”Popular Music” trained musician has always seemed something quite natural to do. And the reason is very simple, it has to do with the kind of use I personally give to musical notation. In my experience, each time I create a melody and write it down, I do by notating only rhythm and pitches. Mainly a transcription of the sounds I produced by singing or playing an instrument. I use the notation as general memory aid and specifically to fix certain small features that I found interesting and wish not to miss (those small features are normally the ones that I tend to forget when the melody is still fresh). This notated version becomes then the “original”, but I have never minded about what happens to the melody in its subsequent reproductions, when I teach it to some one else or I hand out the written version to any kind of musicians, the outcome is always another version of the same melody, and it generally works fine in the new context. Even when I play it, and keep playing it for a long while it goes little by little changing, an extra note here and there, some tempo adjustments, is something very natural to do.

It works quite similarly for some parts of a small ensemble, normally for the complementary parts of an arrangement you simply hand out a simple score containing the overall structure of the piece, tempo, chords, harmonic rhythm, breaks and dynamics for the main sections. Then to achieve a fully “in style” result, the important decision to make is **who** is going to be asked to perform the part. And the decision is made counting on the stylistic expertise of the performers. The results vary dramatically from performer to performer if they come from different “traditions” and haven´t acquired the expertise in the required style. Even if you hand out, for example, a written down “original” bass line, most performers would play their “own” versions of the part, and the expressive features shown would vary enormously depending on the stylistic background of the different interpreters. Of course this is a frequent and very natural feature for most musicians, and it informs us about how the distinction between these “core” traits and those “stylistic” traits is constantly being made, even if unconsciously.

On the other hand, most melodies are also susceptible of being considered as bearers of stylistic features in their very duration/pitch structures. The stylistic environment in which they were born is able to create a series of duration/pitch features that can be recognized as belonging or not to a specific style. In this sense it results quite obvious that the stylistic classification of a melody can also be intimately connected to the characteristics contained in its “raw structure”. However, melodies are also susceptible to be interpreted, transformed, adapted or varied as a result of being adopted by a “foreign” stylistic entity or in order to make them able to “fit” in a different stylistic environment. Despite the qualities or origin of rhythm/pitch characteristics, melodies can be varied through to the stylistic knowledge of the entity that adopts them. Indeed, as a see it, this seemingly paradoxical situation could be responsible of generating at least some of the variations that a melody can experience when being aurally transferred.

> “…a presented stimulus is interpreted by knowledge, sometimes called schemas, acquired through prior experience. In music, the schemas include for example, typical rhythmic and pitch patterns. Perceptual information is assimilated to these, facilitating the organization of the sounded events into patterns and generating expectations for future events. Cognitive processing can also lead to systematic distortions so that the events may not be encoded and remembered exactly. Inherent constraints, such as short-term memory limits and biases toward simple patterns, are also presumed to play a role.”[10]

The citation above suggests that there is a possibility that melodies can be varied due to the dissimilarities existent between the stylistic features of an initial melody and the stylistic knowledge of the receiver. Where the impossibility of encoding not yet learned musical structures could provide space for the utilization of musical features that are more familiar to the receiver. However maintaining a degree of constancy in the structure of the tune.

> “Both musically and psychologically, not all tones in a piece have equal significance. Some tones appear more frequently and for longer duration, occur in more prominent rhythmic and metrical positions, and are stressed in performance. These tones also have psychological priority; for example, they are remembered more accurately, influence melodic expectations, resist substitution by another tone, and produce a sense of finality or completion.”[11]

The quotation above suggests that the hierarchical nature of human perception of musical structure might be responsible of defining the musical elements that are most likely to be constant. Therefore it seems possible that the relation between stylistic knowledge and the musical basic structures encountered in a melody, is able to produce melodic variation.

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[10] **Krumhansl Carol L.** “Rhythm and Pitch in Music Cognition”. Psychological Bulletin 2000, V ol. 126,No. 1. 159-179. P 159. http://psycnet.apa.org.pva.uib.no/journals/bul/126/1/159.pdf

[11] **Krumhansl Carol L.** “Rhythm and Pitch in Music Cognition”. Psychological Bulletin 2000, V ol. 126,No. 1. 159-179. P 173. http://psycnet.apa.org.pva.uib.no/journals/bul/126/1/159.pdf

This kind of situations keep me thinking that certain stylistic features might be somehow independent from some core structures in the music, and that it is the particular stylistic proficiency of individuals or groups of individuals and their cultural background what makes the variation of musical material possible when transmitted.

Now, it would be important to comment on some ideas that would shed light over the processes of how these stylistic features are being applied to the musical material received. In this sense I find that the concepts of improvisation and composition could suggest some ways of understanding to how the specific kind of stylistic information contained in a person would sprout over the music that is being hosted and reproduced.

4 Composition and Improvisation

In this chapter, I would like to present the way in which the concepts of Composition and Improvisation relate to each other for me, and applied to the context of this work.

First I would like to show some citations that I`ve gathered during the time that this project has been going. They in general represent the ideas that made me get to this point.

> For example, Riemanns Musiklexikon, Sachteil (Mainz, 1967), in an unsigned article says: "Strictly speaking, only in the West, and even there only beginning at a rather late historical stage, can one speak of improvisation, since non-Western and older European music stands outside the distinction between composition and performance which is essential to the concept of improvisation" (p. 390).[12]
>
> “Improvisation and composition are opposed concepts, we are told the one spontaneous, the other calculated; the one primitive, the other sophisticated; the one natural, the other artificial. But, on the other hand, we are also given to believe that improvisation is a type of composition, the type that characterizes those cultures that have no notation, a type that releases the sudden impulse to music through the direct production of sound. We hear that improvisation ends where notation begins, yet at the same time we are told that certain non-Western cultures which do not use notation distinguish between the two processes, if not explicitly, then by the way they internally classify their music. Thus, while we feel that we know intuitively what improvisation is, we find that there is confusion regarding its essence”.[13]
>
> “…perhaps we must abandon the idea of improvisation as a process separate from composition and adopt the view that all performers improvise to some extent. What the pianist playing Bach and Beethoven does with his models- the scores and the [14]accumulated tradition of performance practice is only in degree, not in nature, different from what the Indian playing an alap in Rag Yaman and the Persian singing the Dastgah of Shur do with theirs”.

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[12] **Nettl, Bruno.** Thoughts on Improvisation: A Comparative Approach. The Musical Quarterly, Vol. 60, No. 1 (jan., 1974, p. 2. http://www.jstor.org/stable/741663

[13] **Nettl, Bruno.** Thoughts on Improvisation: A Comparative Approach. The Musical Quarterly, Vol. 60, No. 1 (jan., 1974, p. 4. http://www.jstor.org/stable/741663

[14] **Nettl, Bruno.** Thoughts on Improvisation: A Comparative Approach. The Musical Quarterly, Vol. 60, No. 1 (jan., 1974), p. 19. http://www.jstor.org/stable/741663

4.1 The improvisation/composition similitude

For most people, the idea of composition and improvisation being closely related could sound at least a bit odd, since we are mainly used to understand composition and improvisation as separate disciplines that not everyone is able to master, as gifts, or as extremely technical procedures. Well, of course that is generally true when we speak about Classical Music or Jazz, the most iconic examples of “good” music in the western culture. But these two terms also possess a much more “simple” dimension within.

4.1.1 Composition:

Even though there are many definitions of the term Musical Composition that in general involve the issue of musical notation as a defining characteristic of it. I would like to step aside of those definitions in order to develop a discussion that would include music that does not uses notation as its main way of conservation.

In general, I don´t bother with a complicated definition for the word composition, I believe that is simply the very act of creating something “new”. Disregarding motivations, tools or any other means that may have taken a place in the process. As Stephen Blum defines it in the first line of his article *Composition*:

> “The activity or process of creating music, and the product of such activity”.[15]

In the context of this work as I deal with aural transmission issues, we need to assume the existence of something that is being transmitted, something that will keep being “the same” after transmitted. We need also to assume that this “something” was created/composed at some point in the past. And that after transmitted it will be suitable to be passed on again and again. So we are talking about an object, in this case a “melodic object”, which has certain characteristics that make it recognizable as “one” and not many. In one way or another we are talking about stability, the stability that is conceded by a melodic entity and structure that was created/composed before.

In this line of thought, the event of creation/composition itself, as well as the time and provenance of the hypothetic piece, could turn completely irrelevant. Instead, it is the traits of stability established during that process what I would consider to be significant. The melodic structures that get born in the creation process and are represented in the structure of the actual melody provide the ground from which variations could emerge. In this sense I see a strong connection between the concept of composition and the ability that melodic objects have to survive the process of aural transmission and keep being able to be considered “the same”.

---

[15] Blum, Stephen. ”Composition”. Oxford Music Online. http://www.oxfordmusiconline.com.pva.uib.no/subscriber/article/grove/music/06216?q=composition&article_section=headwords&search=article&pos=1&_start=1

I feel very tempted here to start using the word “pre-composition”, as an aid to refer to something that exists beforehand, not the process of creating/composing it in the past, but the melodic product/object that is being transmitted, the bearer of stability. And re-composition, referring to the fresh rendition of a pre-composed piece, the bearer of variability.

So when I take in account the definition of the word composition given by Blum, and the conditions of this aural transmission context, the idea of a two sided process come inevitably to my mind, where creation depends on the relationship between pre-composed and re-composed musical objects. And where at the same time, the re-composed items become pre-composed ones for the next event of aural transmission. The process of composition seems like a continuous process, consistent of a chain of individual cycles of facing a pre-existent item and its re-creation.

When we talk about composition under these terms, it becomes increasingly interesting how the limits between the already existent material and the new elements added by the performer start to turn unclear.

4.1.2 Improvisation

First of all, I would like to share some quotes that show some views about the concept of Improvisation:

> Improvisation. “When we think *improvisation,* we tend to think first of improvised music or theater or dance; but beyond their own delights, such art forms are doors into an experience that constitutes the whole of everyday life. We are all improvisers. The most common form of improvisation is ordinary speech. As we talk and listen, we are drawing on a set of building blocks (vocabulary) and rules for combining them (grammar). These have been given to us by our culture. But sentences we make with

> them may never been said before and may never be said again. Every conversation is a form of jazz. The activity of instantaneous creation is as ordinary to us as breathing."[16]
>
> Improvisation. "In a sense, all art is improvisation. Some improvisations are presented as is, whole and at once; others are "doctored improvisations" that have been revised and restructured over a period of time before the public gets to enjoy the work. A composer who writes on paper is still improvising to begin with (if "only" mentally), then taking the products of the improvisation and refining and applying technique and theory to them.[17]
>
> Improvisation is the result of a musician exercising relatively great flexibility with given material during a performance.[18]
> "The amount of flexibility and the nature of flexibility that is exercised in the performance of given material varies widely from music to music. When an Anglo-American ballad or a Mexican *corrido* is performed, the community expects some kind of change – but not too much – to occur in each performance; this results in recognizable variants and is known as "the folk process of re-creation", or "collective folk composition". Some flexibility – variations in phrasing, in speed, in dynamics perhaps – is expected in a good deal of notated music in the European classical tradition as well; this is called "interpretation"."[19]
>
> Improvisation. A definition: The creation of a musical work, or the final form of a musical work, as it is being performed. It may involve the work's immediate composition by its performers, or the elaboration or adjustment of an existing framework, or anything in between. To some extent every performance involves elements of improvisation, although its degree varies according to period and place, and to some extent every improvisation rests on a series of conventions or implicit rules. The term 'extemporization' is used more or less interchangeably with 'improvisation'. By its very nature – in that improvisation is essentially evanescent – it is one of the subjects least amenable to historical research.[20]

It seems that most of the literature regarding the topic of improvisation tend to direct its attention to musical genres that are already recognized as "improvisational". And tries to explain the mental processes involved in the production of such music. Those studies in general deal with issues that involve specialist improvisers acting within their area of expertise in an specific stylistic and cultural context, where they fully develop their experience. They treat the improvisation phenomena as a discipline. But as we can read in most of the definitions cited above, the concept itself in its broadest sense would not excludes music that would conventionally considered “non-improvisational”.

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[16] Nachmanovitch, Stephen. "Free Play. *Improvisation in Life and Art".* Penguin Putnam Inc. New York. 1990. P. 17 .

[17] Ibid. P. 6.

[18] Wade, Bonnie C. "Thinking Musically". Oxford University Press, Inc. New York 2004. P. 110.

[19] Ibid. P. 110.

[20] Nettl, Bruno. "Improvisation". Oxford Music Online. http://www.oxfordmusiconline.com.pva.uib.no/subscriber/article/grove/music/13738

There seems to be two apparently confronted views about the concept of improvisation, one has to do with considering improvisation a system of expertise, and the other, I would say, talks about the ability of variation that the articulation of an already familiar known expression could have.

Even though those two points of view could lead the term in different directions. I find that there might be a couple of ideas that could link any definition of the concept; those ideas have to do with the origin of the improvised material and its novel quality.

As mentioned in Nettl´s definition above, “to some extent every improvisation rests on a series of conventions or implicit rules”, or as mentioned by Nachmanovitch, it rests on a “vocabulary” and “grammar”. Or to put it in brief, plane and simple language, it rests on materials and procedures that were there from before, that have been acquired, have been learned through time, through the culture we´ve lived in, through the experiences we´ve passed, the sounds and the music we have heard, played and danced. All this background would serve as the base for the way in which different people faces their musical activities, and would also define the significance, desirability and amount of novelty involved in the developing of their music. As I see it, it is in this way, that the tendency to utilize the concept of improvisation in differing ways, has to do with the degree of freedom that is *given* to us in order to exercise “free play” and utilize our improvisational capabilities. And at the same time the manner in which that degree of freedom influences how the fundamental features of any kind of music look like.

The idea that any musical act that would involve improvisation is governed by the utilization of pre-existent materials organized by also pre-existent procedures, could suggest that the resultant products of such activity would not be able to produce “truly new” musical items (that can be recognized and differentiated from previously created items). On the other hand, it also seems that any conception of the word improvisation is intimately linked to the concept of novelty. The appearance of features that could be perceived as “new” is normally considered be a basic condition that any phenomena that claims to contain improvisational traits must fulfill. Once again the degree in which novel features are recognizable as such, or furthermore, the kind of understanding that defines the “new”, can and will certainly produce distinctions regarding the way in which a specific kind of music will be defined. The consideration of how improvisational this or that music is, it’s a matter that can absolutely be discussed in depth…

To continue talking about the degree of novelty encountered in the performance of a given type of music, and connected with the practical part of this work, I feel that it is important to discuss a little bit about the relationship between notation and improvisation.

As we have seen, the broadest definition of improvisation would not enter in deep conflict with even the most extreme examples of “non-improvisational” music. Even the most highly detailed notation system does not encompass every possible feature that the interpretation of a piece of music could, or most likely, should contain. There is always space (even though it might seem insignificant) for the exercising of some freedom and variation that would affect the quality of the parameters that don´t have an exact or “convincing” representation in the score. This adjusting of certain parameters produces difference, both compared to the score and to other renditions of the same piece, in what could be considered the birth of novel features for that music. Of course these variations might seem really insignificant for most people and thereby they wouldn´t be considered as proper “novel traits”, in this case it would be quite natural to conclude that given the great span of potential variation that improvisation involves, the amount of novelty and improvised material offered by music that heavily rely on notation is quite low.

On the other hand, when notation is used to represent musical features encountered in music that is not originally notated, we find a series of new implications regarding the perception of novel traits. A written representation of a piece of music informs about the characteristics of a single piece of music, and captures some of its main features in a certain specific state. Even if it does not intend to do so, a score tends to claim some kind of authority. It somehow becomes a model, if not a model of the “original”, maybe a model of a “version” of it, or correspondent to a certain strain of versions. This condition immediately produces a situation in which comparison claims increased prominence, from that moment and on, any rendition of that piece of music can easily be contrasted to the written version, and most likely any deviation encountered could be defined as “new”. Even if those “deviations” were at some point something usual to find in that kind music, the sole intervention of notation can change the perception of them.

I wanted to touch this issue in order to reflect just a little bit around the crossroads where this project stands. As you will see further on in this paper, the practical part uses information gathered in a mixture of written and aural musical experience, and it is important to be clear about the conditions that this relationship brings to the table. The way in which the material used in the practical part is judged and classified, is at all times related to “deviations” from a written original. Which means that it doesn´t necessarily informs about the experience as a whole, but intends to help in the identification and utilization of those elements that may be considered as improvised.

4.1.3 Composition and Improvisation relation

I like to think about connections and similitudes between composition and improvisation, but even though it may prove challenging for me to discuss, they have been traditionally regarded as different, and I must be aware of the features that one way or another could separate the concepts. For example as Ed Sarath in the article “A New Look at Improvisation” departs from the following statement:

> “My central premise is that the improviser experiences time in an inner-directed or "vertical" manner, where the present is heightened and the past and future are perceptually subordinated. I contrast inner- directed conception with the "expanding" temporality of the composer, where temporal projections may be conceived from any moment in a work to past and future time coordinates”.[21]

In other words, he proposes that “A key characteristic of composition is its multi-layered temporality”[22], while improvisation works as “the spontaneous creation and performance of musical materials in a real-time format, where the reworking of ideas is not possible”.[23] Although I realize that he conceives composition and composer, as necessarily connected to some method of fixation -in this case notation- I think that his idea is useful, and can give rise to further discussion in the context of this thesis. Temporality feels like a crucial matter that is at the same time very slippery…

I think that there is indeed some kind of difference between both concepts in regard of temporality, and there are some different categorizations that can be made thanks to this parameter.

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[21] Sarath, Ed. ”A New Look at Improvisation”. Journal of Music Theory, vol. 40. No. 1 (Spring, 1996), p. 1. http://www.jstor.org/stable/843921

[22] Ibid. P. 3.

[23] Ibid. P. 3.

As I can tell from Ed Sarath´s premises, one characteristic that distinguishes composition from improvisation is the discontinuity of the creative process. This would allow a piece of music to be reworked and revised so its “final” form would result satisfactory for its context. (Doesn`t that sound familiar?) This idea implies at least a few useful paths that could prove useful to discuss the significance of the word “composition” regarding aurally transmitted music that don`t use notation as a main part of it affairs. I would like to make some parallels and establish some relations.

For a piece of music that is being transmitted aurally (disregarding if it has or not a known “original” version, in the sense mentioned in the “tune family” chapter), each step in the transmission chain involves a series of potential changes.

Although aurally transmitted music is under a general view, not the best example of “composed” music. It seems to me that, as we can see it suggested previously in this work, the characterization of the term composition as something that can be reworked with the aim of reaching a final form is exactly our case. The problem is the assumption that there must be, or should exist a final form[24]. Because if we assume that this or that is the finished form of musical piece, it is natural to assume also that the process needed to achieve this goal has ceased to occur, on the contrary and as is our concern, music that is constantly passed on aurally tend not to reach, or better said, does not have to reach a final stage. So when I try to make Sarath´s differentiation fit in our case, what I see is that in a process of aural transmission, is the activity itself what includes the practice of composition, and that the process of “finishing” the product turns irrelevant. Or to put it other way, the “final form” perceived would not necessarily be correspondent to the “final form” reproduced.

(An orally transmitted piece of music, that passes from one person to another, each time becomes a rework of itself. In a way I believe that the “composition” process in traditional aurally transmitted music does not stop with the settlement of its main traits, on the contrary, it feeds from them to let the people that uses the music continuously rework and revise the material.)

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[24] ”the corollay – that composing has not taken place if the process of creating music does not result in a relatively fixed product – is an assumption that ethnomusicologists do not find viable”. Wade, Bonnie C. ”Thinking Musically”. Oxford University Press, Inc. New York 2004. Pg. 109.

4.1.4 A little parallel:

To add some spice to the previous paragraphs, I would like to comment on the section “Composers´ writings on their own compositional process” found in the book *The Musical Mind: The cognitive Psychology of Music,* by John Sloboda 1985, pg. 115-123. The section begins by showing a series of quotes made by various classical composers in which is quite evident, as Sloboda mentions it, that “there appears to be a distinction between those processes on which a composer able is to report fairly easily and those on which he is not”.[25] Accounting on that information, he suggests a description of the compositional process that divides the process in two main parts, the *unconscious* and the *conscious*, and also suggests the constituent parts of it. It is the “general tonal and stylistic knowledge” and the “superordinate constraints an form and direction” the items that define the *unconscious* phase, and the “repertoire of compositional devices” among others, a constituent of the *conscious* phase. These three items are characterized as “knowledge or structures that are stored in long term memory”[26] and also as “long-term knowledge which a composer has built up over the years, and which can be applied to new compositional problems”.[27]Also in the *conscious* phase, there are some items the he describes as “transitory materials”, items like “idea”, “theme”, “intermediate form” and “final form”, this last obviously making clear what is the kind of musical tradition from which that study comes from. The “final form” concept might not be a concept that we could make fit easily in this discussion, but I think that the rest of the terms could perfectly suitable to be used in one way or another to discuss about “different” creative processes.

The diagram in which those ideas are depicted, is called “Diagram of typical compositional resources and processes”[28]. That title really attracts my attention, since even though it describes the matter that is being depicted as “typical composition process”, the elements contained in it seem to be, at least under my view, very comparable to those suggested during the discussion about improvisation that was developed before in this chapter. To understand this thought it is important to take in account that for a composer, the term composition involves by default, the intention not to repeat, but to produce “new” music. Therefore the concepts contained in the "conscious part" of the diagram, would correspond to "new" musical items in the process of being modeled by the mental items contained in the "unconscious part". The *implicit rules* that appear to govern the generation of "new" musical material, represented by unconscious items like the before mentioned "general tonal and stylistic knowledge" or "superordinate constraints on form and direction", suggest to me the existence at of at least a great degree of similitude between the grounds where composition and improvisation are based. It seems that those items that have been acquired through time exercise a great influence in the shaping of the outcome of improvisational and compositional processes. However, contained in that diagram, there is a third item that belongs to the conscious part, and that is also considered as stored in long term memory and acquired through time. The "repertoire of compositional devices" that has to do with the ability to revise and modify the material produced as resultant of unconscious processes. This is an item that, as can be notice in the previous section about Ed Sarath´s view, could be considered as one of the greatest features that differentiate the two concepts in question. As presented in those paragraphs, the idea that the ability of revising and reworking a piece of music is the exclusive property of compositional processes and not improvisational processes is arguably. As stated by Bruno Nettl:

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[25] Sloboda, Jhon A. *The Musical Mind: The Cognitive Psychology of Music.* Oxford University Press, 1985. P. 118.

[26] Ibid. P. 118

[27] Ibid. P. 119

[28] Ibid. P. 118

> "We can consider a model in which all composition shares, in one way or another, in this sequence: pre-composition, composition, and revision. (…) I suggest that this sequence may be played out over moths or years in some cases, and in other cases, in a few minutes. While this model is taken by some to be relevant only to formally composed music, distinguishing it from improvisation and from composition in oral/aural tradition, I suggest that it may also apply to all types of musical creation."[29]

And even though he refers to improvisation as a system of expertise, and not in the broader sense of the word that I try to discuss here, Jeff Pressing also describes the same thought:

> "An interruptable associative process based on ongoing evaluation of previous musical events was considered to guide the generation of new material…"[30]

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[29] **Nettl, Bruno.** *The study of Ethnomusicology: Thirty one Issues and Concepts.* University of Illinois Press, 1983. P. 30.

[30] **Pressing, Jeff.** "In the Course of Performance". Editors: Bruno Nettl and Melinda Russel. The University of Chicago press. 1998. Pag. 56.

Even though Pressing identifies this process of evaluation as constrained by both conscious and unconscious items, Nettl does not address the issue and Sloboda identifies it as a clearly conscious process. The ideas presented suggest to me that that the tendency to differentiate the two concepts regarding revision processes relies once more not in the nature of the phenomena but in the degree and form in which it is displayed.

There is yet one more issue that we could comment in this section; the production of “new” musical material. It seems that both composition and improvisation practices have the necessity to produce novelty if they intend to be considered as such. And even though the existence of that necessity makes the exercise of comparing them look very seductive, we need to acknowledge that the production of novel musical material in the side of composition, tends to be an absolutely conscious and intended action, in contrast to the improvisation side, where the “same” production process might or might not be of that nature.

5 The Creative Process

5.1 The “original” melody

5.1.1 Compositional outlines for the “original” melody

When I first decided that I was going to be asking people to reproduce melodies. I thought on creating a series of melodies, which under my way thinking would go progressing from “easy” to “difficult” to learn. I created around 7 melodies following this difficulty progression and chose the kind of traits that I believed were adequate for each level. As the work went progressing, and since the amount of data produced increased excessively, I decided to use just one melody. The one I chose corresponds to the first I created, therefore the “easiest” to learn. I really don´t know if this was actually the “easiest” melody to learn among that set. But at least I can share with you what were the parameters at that moment I thought would help me produce an “easy” transmittable tune.

I thought the tune should:

- Be diatonic.
- Have a clear AB/aabb form.
- Contain a fair amount of repetition.
- Have rhythmic consistency and regularity.
- Not have too many differing motifs.

5.1.2 Structural analysis of the composed “original” melody

Figure 1

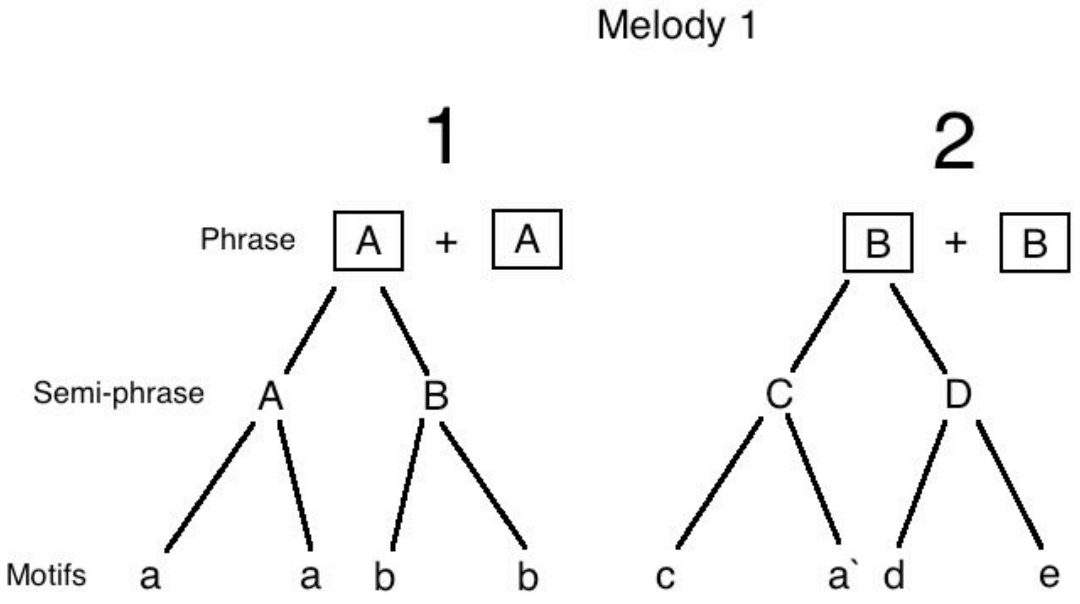
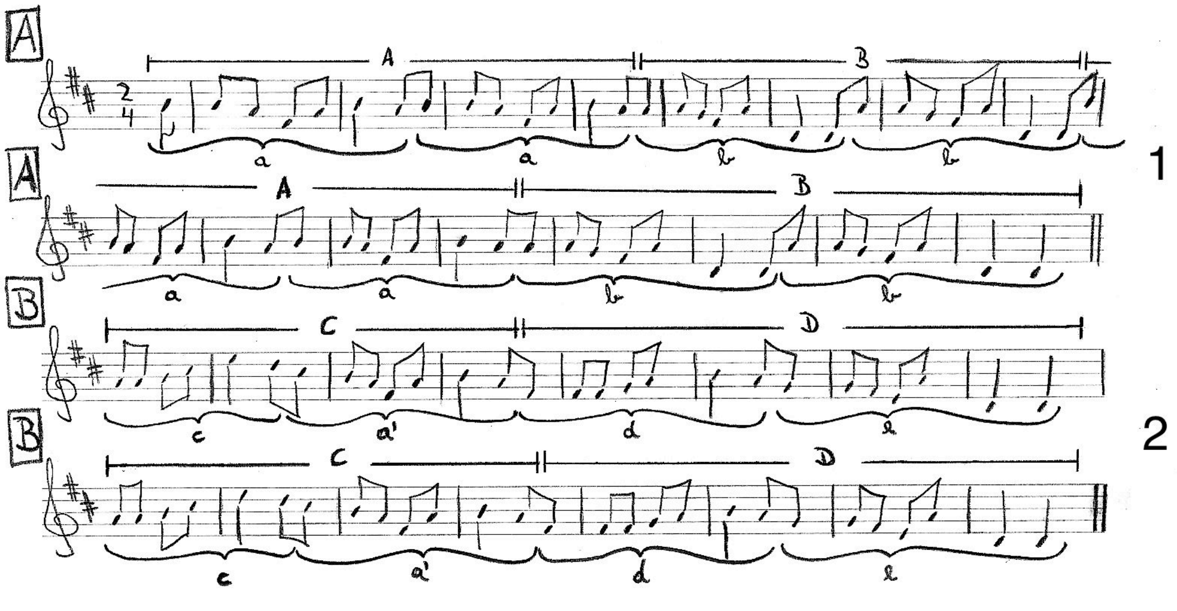

Melody 1
1
2
Phrase
A + A
B + B
Semi-phrase
A
B
C
D
Motifs
a a b b
c a` d e

Figure 1 is a diagram that shows the overall form of the melody utilized for the implementation of the experiment. The big numbers suggest the two main sections, the squared capital letters indicate the main phrases, the non-squared capital letters indicate semi-phrases and the lowercase letters designate the constituent motifs.

Figure 2

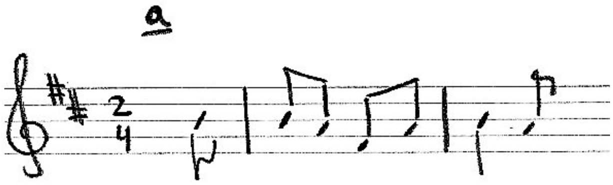

A
A
B
a a b b
1
A
A
B
a a b b
B
C
D
c a' d e
2
B
C
D
c a' d e

CD track number 1

The figure number 2 above shows the melodic structure registered as pitch and duration features. It also shows the way in which the melody is subdivided in order to build the formal diagram in figure 1. As it can be observed, it is a very symmetrical structure; two main sections form the melody, and each one of them is conformed by two identical 8 bar phrases. The phrases in both main sections are constituted by two distinct 4 bar semi-phrases. Each semi-phrase in section 1 is conformed by two double bar identical motifs, and in section 2 by two distinct double bar motifs.

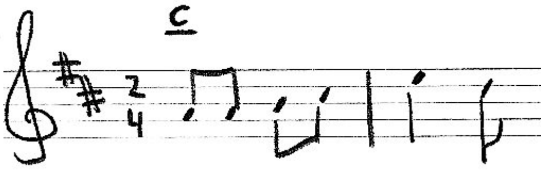
Regarding the melodic contour we could say that there exists two types of motifs. Melodic figures related to motif "a":

Figure 3



And related to motif "c":

Figure 4



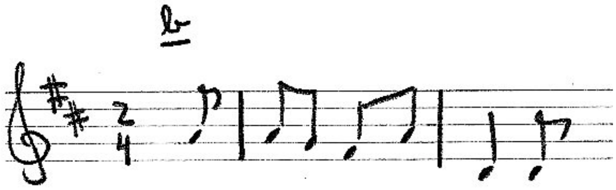
Variations of these 2 motifs are found as the building blocks for the construction of the whole melody. There are three other motifs related to "a", and one more related to "c". And the variations found correspond mainly to transpositions, changes in the size of some intervals, addition/subtraction of notes and minor contour shifts.

Motif “a”. –

The motifs related to “a” are the motifs “b”, “a`” and “e”. And compared it, they behave as follows:

In motif “b”:

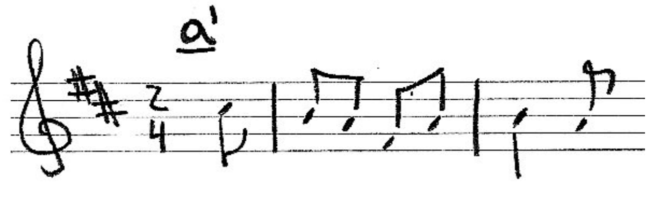
Figure 5



The three first notes are diatonically transposed a second down, the fourth an fifth notes remain the same and the following twist downwards that is characteristic of “a” is anticipated with a descending jump of a fifth.

In motif “a`”:

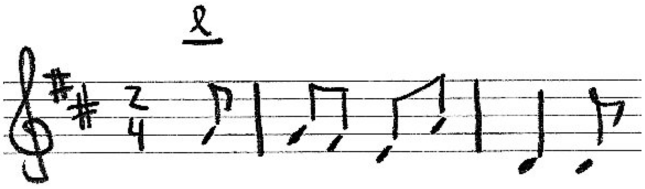
Figure 6



The only difference is the starting note, that produces a slight contour discrepancy, and the discontinuity of the two repeated initial notes pattern that characterizes the rest of the related motifs.

In motif “e”:

Figure 7



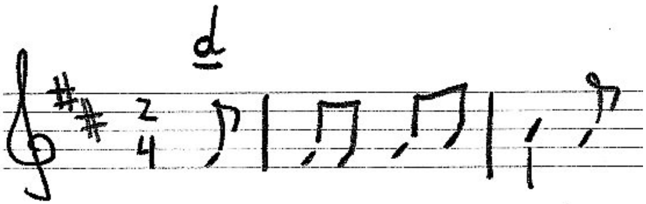
As a resolutive motif, it in general shares the mechanisms of variation displayed by motif “b”. Diatonic transposition of the first fourth notes, and anticipation of the following descendent melodic turn.

Motif “c”. -

There is just one motif related to “c”. Compared to it, motif “d” behaves as follows:

Motif “d”:

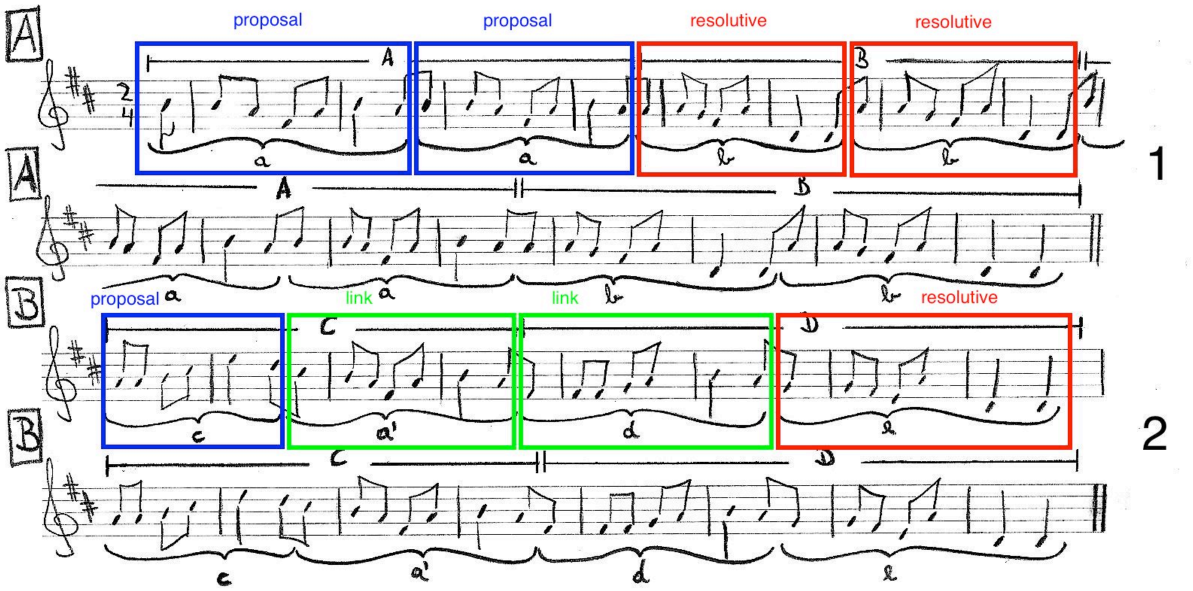
Figure 8



It adds an extra note to the beginning. And presents a diatonic transposition with a slight shift in the intervallic ratio, the original interval to reach the highest note in the motif “c” was a third, in motif “d” that interval is replaced for a second.

It is important to note that the motivic relationships established above, are mainly based on the motifs contour qualities. And even though they seem to be clearly related in that regard, they also might differ greatly in the role they play within that melodic context. The clearest examples are the relation between motifs “a” and “b”, and the relation between “c” and “d”. To make it very simple, if we listen to the entire melody we could say that motif “a” presents or proposes an idea while motif “b” tends answer or resolve that idea. And that motif “c” imposes another idea in quite strong way while motif “d” somehow serves as a transient station to get to the resolutive last figure. To try explaining these differences from the tonal music point of view, it would be very normal to relay on the study of the harmonic functions implied in the melody, but I consider that system brings a series of issues that I'm not interested to discuss here. In exchange, as suggested above, I will consider the motifs and their roles to be correspondent to 3 different categories; proposal motifs, resolutive motifs and link motifs. As shown in the figure 9, I assigned colors to the different roles, blue for the proposal motifs, red for the resolutive motifs and green for the motifs that act as a link.

Figure 9

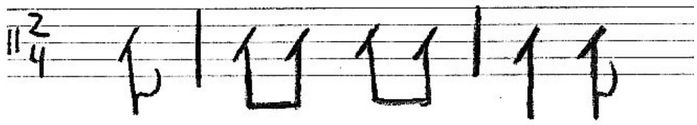


Rhythm.

The most noticeable characteristic that the melody has regarding rhythm and durations is its consistency and symmetry. The length of every single structure or sub-structure found in it, can be fitted or divided to exactly match virtually any of the of the rest of the structures. Thirty two 2/4 bars for the whole melody, sixteen bars for each section, 8 bars for each phrase, 4 bars for the semi-phrases and 2 bars for the motifs, reflect a very common structure to be found in abundance within the western world music.

There is in addition, another feature that improves the symmetry and stability of the piece. The whole melody is supported by a very steady and recognizable rhythmic pattern that gives form to virtually every single motif.

Figure 10



This rhythmic pattern is consistently present in every motif, with the only exception of motif "c", where the only difference is the absence of the first quaver of the figure.

5.2 Transmission process:

After the process of creation of the melodic material, the aim was to use that material to create an artificial situation of oral/aural transmission.

I arranged individual sessions where musicians were asked to reproduce the melody I was singing to them (my original). They were asked to try and achieve a "complete" version of the tune each time the played it. This meaning trying to be fluent, trying also to get to an end, even if they had forgot some part of the melody and feeling free to play the tune the way it was more comfortable for them.

To start the experiment, the first step was to present the melody to the performers, and after memorizing it, I chose to show the melody by singing it. The first time I would sing the tune twice in a row and ask them to reproduce it immediately afterwards. The second time and for the rest of the session I would sing the tune once and they would reproduce it. This cycle of hearing and playing the melody was repeated until they had achieve a version where I could hear the tune´s most representative features and a more or less *smooth* execution of it.

* *From this part and on, the experimentation is governed to a great extent by my own understanding and my ideas about how I could use the relative results of this specific process of aural transmission to enrich a given melody.* ***The treatment of the collected data is aimed to achieve the specific goal of developing the already existent melodic material into novel versions of itself****. It is of course, not the only way to pursue the achievement of that goal, but I find that it can display a series of relevant issues for the understanding of the mechanisms of music creation and re-creation.*

5.2.1 The subjects of experimentation

There were originally five people that participated in the aural transmission experiment. Three of them were chosen to be included in the final work. At the moment of the experiment, all of them were folk music students.

Here there is some complementary information about the three of them.

5.2.1.1 Subject number 1

Started playing the Hardanger Fiddle when he was twelve years old. Took Hardanger Fiddle lessons with Ottar Kåsa, per Anders Buen Garnås and Christian Borlaug. Studied folk music at Høgskolen I Telemark, Rauland, for one year. Plays traditional folk music from Norway. From Sandefjord, Norway. Was born the 13th of March of 1992.

Instrument played for the experiment: Hardanger Fiddle.

5.2.1.2 Subject number 2

Started playing music at three years old. Plays fiddle, viola and recently hardanger fiddle. As a child studied classical violin with Randy Balzer. Started to play fiddle styles at eight years old. Studied Scottish fiddle with Jessica Winter and other varied traditional fiddle styles with Stephanie Custer. Also Studied Jazz and Contemporary Violin at Vancouver Community College and one semester of Norwegian folk music at Høgskolen I Telemark, Rauland. Plays Tango, Irish folk music, and improvised music in folk/rock/alt-country settings, also with bands and singer songwriters. From Vancouver, BC, Canada. Was born the 28th of march of 1987.

Instrument played in the experiment: Regular Fiddle.

5.2.1.3 Subject number 3

Started playing fiddle in 2nd grade at seven years old, and hardanger fiddle at fifteen. Her first teacher was Ingrid S. Miller from Arendal. Studied music in high school (Dahlske in Grimstad) with a viola player from Kristiansand Symphony orchestra, Trygve Johan Simonsen. Used to play much classical music, both violin concertos and ensemble music. She has also learned to play some jazz, blues, rock, and improvisation with the violinist

Sebastian Gruchot. Nowadays she plays mostly folk music. From Froland in Aust-Agder, Norway. Was born the 3rd of February of 1993.

Instrument played in the experiment: Regular Fiddle.

5.2.2 Recuperation process: recordings and transcriptions.

The process of aural transmission described above, was recorded in audio format. And the reproductions made by the performers were transcribed.

The transcriptions were intended to reflect the behavior of pitch and durations in each one of the "attempts" of reproduction. In this way I attempted to capture the basic structure of every interpretation, this attempt is at the same time the manifestation of an effort to draw a line that would separate "core" melodic features from most of the ornamentation and stylistic features. The arbitrariness of this act is grounded on the necessity to identify the variations and transformations that the skeleton of the melody had suffered in the process of transmission, in order to be able to use them as constituents for the development of "new" versions.

In this sense, the existence and availability of the known "original" melody plays a crucial role, since the sole condition of having that model in mind becomes the fundamental frame that guides the interpretation of the audio data and its transformation into written data. It is also in this way that at the moment of discriminating between melodic components belonging to the "ornamental realm" or to the "structural realm", the decisions were made using the "original" melody as a referent, and always with the tendency to pursue that model.

It is necessary to recognize that this attempt of separation between style/ornamentation and structure features appears as a naive effort to achieve a more or less coherent workflow. Since naturally, the parameters that are being registered in paper can also be identified as containing traces that can be related to different stylistic currents. In some way or another, the rhythmic patterns and the way that the intervallic sequences are organized, always talk about their stylistic origin.

Also, the transcribing process was meant to produce "cleaner" data, versions of the performance that would be easier to work with. They don´t intend to register the most subtle nuisances of pitch and duration, and the parameters displayed in the performance are very often captured and categorized to fit in the standard notational system.

Due to the sometimes quite chaotic nature of the audio data collected in the recordings, I felt that a tendency to standardize would provide better defined and easier to use basic material, in opposition to emphasizing on a focus in differentiation and detailed description. The transcriptions are the way in which my interpretation of the collected audio material became the basic ingredients for the construction of melodic variations.

(The audio and transcriptions are available in the attached CD and the appendix section "Attempts")

Since the nature of the data gathered was expected to be variable, the use of bar lines was avoided during transcribing stage, and left to take part in the following stages.

Another very important aspect to be mentioned has to do with "errors" in the performance. As to be expected, not everyone has the ability to hear a melody for the first time and be able to reproduce it right after in a "flawless" manner. As it can be observed by listening to the set of recordings made, the subjects involved (everyone of them to a different degree) were gradually finding their way to a reproduction of the melody that would seem "right". In this "finding the way" process we can observe a series of deviations from the original melody, some of them can be understood as "fill the gap" melodic portions, when they didn´t exactly remembered what was the exact motif or motifs that fitted in that space, we could say "improvised creation of related motivic material". And on the other hand, portions that could very well be defined as straight forward as "mistakes". When transcribing I tried to include as much as possible of what we could consider flaws in the reproduction of the melody, by a process of interpretation, adjustment and standardization of the sonorous material. Once again aiming to make it fit in the standard notational system and in an effort to "open the door" of the experiment and let some of the melodic products obtained "by chance", be able to influence and enrich the diversification of the melodic material obtained.

The audio material is classified in "attempts". And there is a transcription correspondent to each one of them.

Subject no. 1:

9 attempts.

Subject no.2:

9 attempts.

Subject no.3:

5 attempts.

All of them are to be found in the appendix, in the “Attempts” section. And in the attached CD, from track 02 to 24.

5.3 Treatment of obtained data:

5.3.1 Discrimination of motifs and construction principles

Once the transcriptions had been finished, the moment to actually search for novel melodic material had begun. I had of course already some ideas about what kind of melodic variations I would find, since I had carried out the whole process, from creating the “original” until transcribing the results of the experiment, the degree of familiarity with the collected data was considerable. Having that in mind, I considered that even when a sizeable amount of contrast could appear differentiating parts of the resultant data from the original model, the identification of “novel” motifs as correspondent or related to the motifs found in the “original” melody would be not only possible and not so difficult to achieve.

I chose to work on top of the transcriptions by identifying and marking each motif I recognized as correspondent to another contained in the original with a numbered bracket.

In general there was not much problem on carrying out that process. In most of the cases, the level of difference between novel and original motifs was not so significant. Although, in the case of motifs that showed greater amount of variation, there was always other strong features that supported them as “related” or “replacement” figures.[31] Enabling them to be considered and used in the development of this work.

In order to facilitate the navigation through the written musical data, I have implemented a “sorting system” that uses a code to indicate where to find the melodic material in question. The code contains 4 variables “X.0.0.0” where the first variable indicates the section in the appendix (A= attempts or V= versions), the second variable indicates the subject of experiment, the third variable shows the number of attempt or version, and the fourth variable shows the number of motif or motifs. For example, in the code “V.3.6.5-6” the melodic material is to be found in the “versions” section, subject number 3, 6th version, motifs from 5 to 6. The absence of the fourth variable indicates the totality of the “attempt” or “version”.
All of the audio files correspondent to the scores can be accessed in the attached CD by following the same coding. (CD track list is to be found in the appendix section)

For example, in the transcription A.1.1.7 (figure 11), we find an example of how a motif has been transformed by rhythmical and pitch alterations, yet maintaining the overall contour of the motifs related to motif “a” (it could be said that it almost correspond to a diatonic transposition of the original, where some intervallic relations have been altered). In this case I would say that both novel and original motifs are “related”. These related expressions of the same motif appeared all along the performances collected, displaying different amounts and types of variation.

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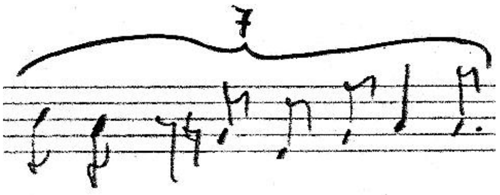
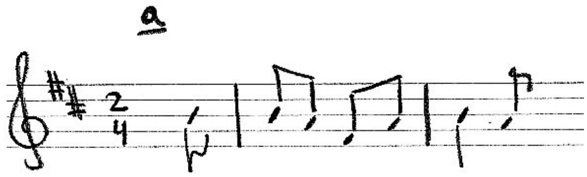
[31] I guess this process of identification could be done by using only transcriptions, but i would say that the experience of listening is the one that gives the better idea of how the sounds are being organized. Yet the notation gives a great support.

Figure 11



A.1.1.7

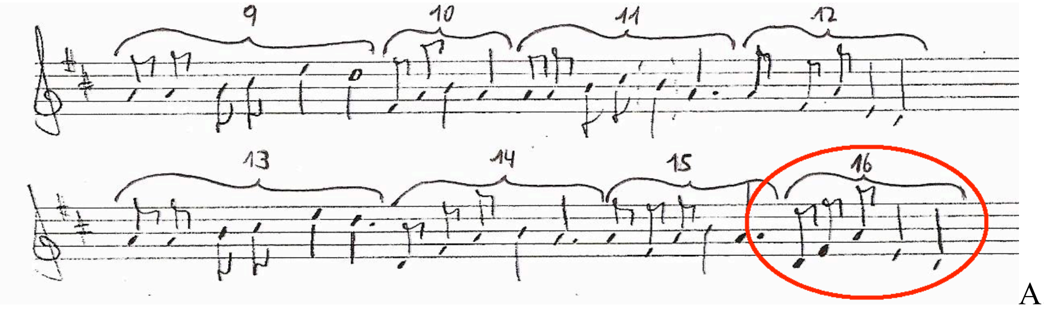
Figure 12



Original “a” motif

The “replacement” of motifs, as the word says, take place when a melodic figure correspondent to the original version, is removed in favor of the use of another that does not show correspondence to the original. In this case, the feature that I find crucial in order to identify a “replacement” figure is its position and function within the phrase. For example in transcription A.2.2.16 (figure 13), even though the construction of the novel motif differs completely from the original, the position at the end of the phrase and its “resolutive motif” form and function, helps the melody to continue progressing in the same way that the original did.

Figure 13



A.2.2.16

Following that frame, and as can be observed in the appendix section “Attempts”, the motifs identified were marked in order to make use of them as the base for the construction of a set of versions of the “original” tune.

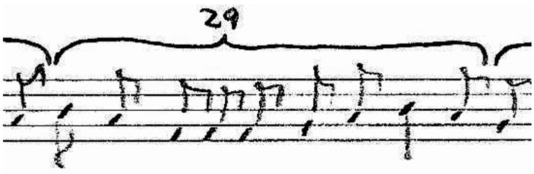
5.4 Creation of the variations

5.4.1 “Version per attempt” mode

This is the first section in which I start actually using the material collected. From the beginning I thought that melodies that are being aurally transmitted in an environment were audio recording or musical notation are not available, might have to withstand a huge amount of variation due to “faulty” learning.
As explained before, in the experimental sessions, the amount of times that the performers were able to listen to the melody was controlled by the amount of attempts they made to reproduce it. The progress of getting closer to a “correct” version of the tune can be observed in the recordings as well as in the transcriptions. They were learning the tune.
I know that sound extremely obvious and even silly. But what if they process of learning the tune would stop at a certain point? What if there was not enough time of exposition to the “original”?
I can´t really answer to those questions, but I wanted to rise the value of the features appeared when the melody was “badly” learned, and perhaps show a little bit of the potentialities that this process could carry.

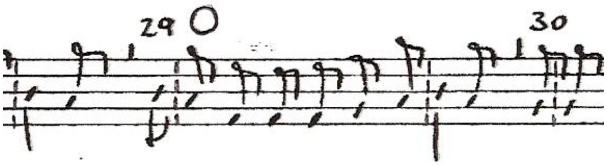
For the creation of this “Versions per attempt”, the work once more consisted mainly about standardization and “cleaning” of the melodic material. The versions are constructed utilizing the bracketed motifs from the transcriptions, all material that was left outside of any bracket, was eliminated. In addition to that, most of motifs that presented “irregularities” in their rhythmic structure were quantized to fit in a regular tempo, and as far as possible in the 2/4 time signature from the original melody. Motifs that had been extended or reduced in their duration and could still fit in a regular tempo were left alone. For example in figure 14 and 15 we can see how the motif A.1.8.29 was interpreted to fit in the correspondent version.

Figure 14



A.1.8.29

Interpreted as:



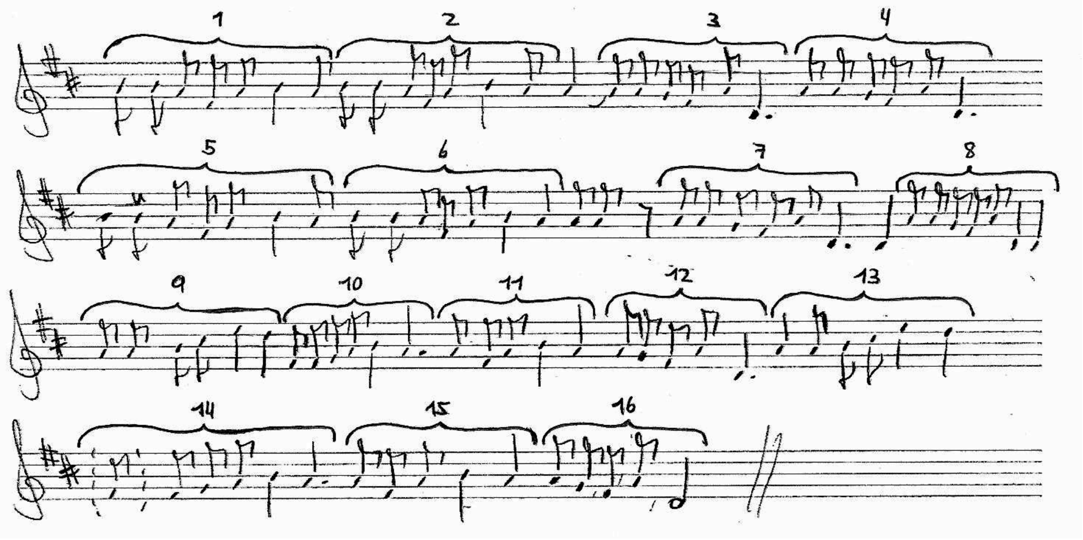
V.1.8.29

In this case the original motif from the "attempt" was interpreted as constituting a 3/4 measure.

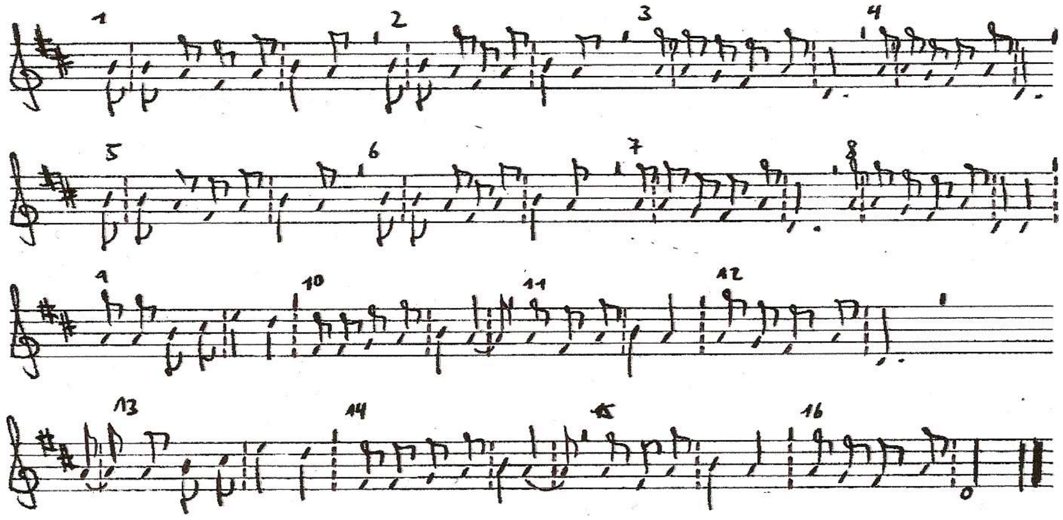
* The O symbol that was used on top of some of the measures in the "Versions" scores, indicates the presence of traits of asymmetry/polymetry.

In each version, all motifs under brackets were put together in the order they appeared in the original attempt. The result of the process can be observed in the appendix section "versions". For example figure 15 shows the process of "putting together" the material identified in the "attempt" A.2.3 in order to construct the "version" V.2.3. The biggest change that can be seen in this case is the elimination of some notes in between some of the motifs chosen to conform the latter version. (Between motifs 6 and 7)

Figure 15



A.2.3



V.2.3

In the image above, the numbers and short vertical lines displayed on top of the pentagram, indicate the location of the bracketed motifs identified on the "attempts". The dotted bar lines are intended to show how the tempo is being situated and suggest the length of the bars. In general the 2/4 time signature remains prevalent over the occasional apparition of irregular measures.

Even though he nature of the experiment in general is not aimed to find out "the truth" about the kind of processes melodic transformation mentioned earlier in this paper, I found myself deeply interested in creating these standardized versions of sometimes a "badly" learned tune. They somehow are able to give us an idea of how this particular melody could behave while being transmitted aurally, about its strong melodic features confronted to its weak characteristics. It is worth to mention that, as it should be expected, the earlier versions, the ones in which there was just one or two auditions involve, are the ones that I feel present these kind of behavior the best.

5.4.2 "Versions per subject" and melodic figures utilized.

The creation of these "versions per subject" of the tune is even to a greater extent, a straightforward act of manipulation of the melodic material collected during the experimentation. And, in opposition to the versions presented before, they intend to reach certain level of artistic validity. Here the process in general is governed by my aesthetic decisions around the use of all the experience acquired during the experimentation and the materials produced by it.

Following the tendency of treating the melodic material as constructed by a succession of motifs, I decided to use those motifs as melodic building blocks, that could be assembled individually or in groups in order to structure a version of the "original" melody.

The motifs to be used in the construction of the new version were chosen taking in account some basic characteristics. The melodic figures favored were those that:

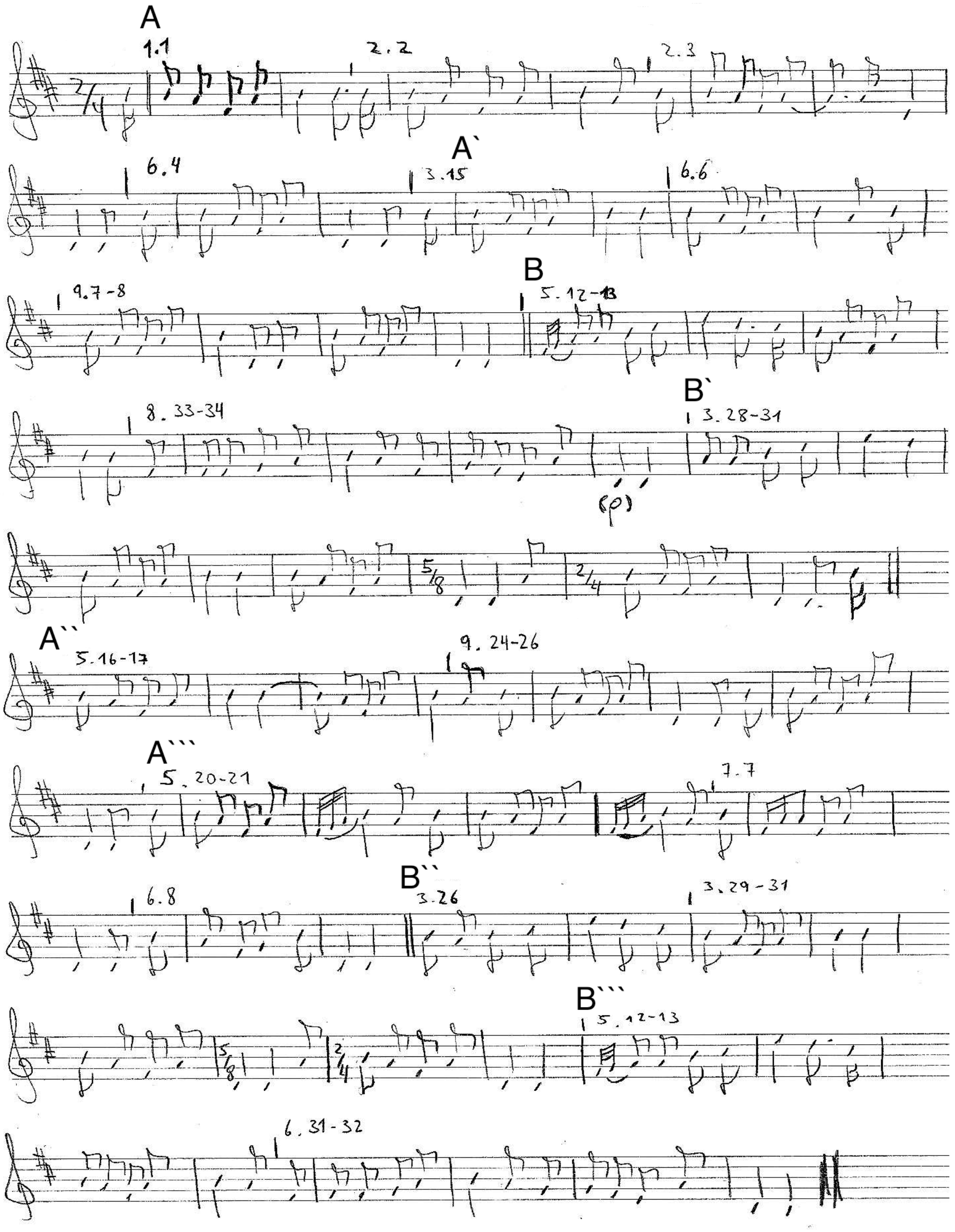
- Could be identified as "representative" for the performance of a single subject. Due to their recurrence through different attempts.
- Showed melodic features that differed the most from the original.
- Showed or produced traits of asymmetry.

The guidelines for the process of assembling those melodic figures were given by both my own aesthetic taste and the "original" tune, the overall structure of the tune became the template in which the motifs would find a similar position and function than in their version of origin. In general the idea was to use the original AABB form of the tune in order to keep the process within a quite conservative frame. In the other hand, the internal structure of the phrases A and B were given a higher degree of freedom, allowing some groups of motifs originated during the previous stages carry on with their new features. These new features allowed the phrases A and B to acquire certain degree of differentiation, in a way that resulted more or less in the form AA`BB`, where exact repetition of phrases is not existent. These versions were also structured for the entire tune to be "repeated" twice, and still have no exact repetition of phrases (AA`BB`A``A```B``B```). The walls of the extreme symmetry and repetitiveness of the “original” tune appears to be somehow breached by the transformations that its constituent motifs had suffered during the experiment.

The motifs utilized come directly from to the ones found in the “Versions” per attempt, but the distribution and origin of them can be observed in both “Attempts” and “Versions” by following the motif numbers that are displayed above the score.

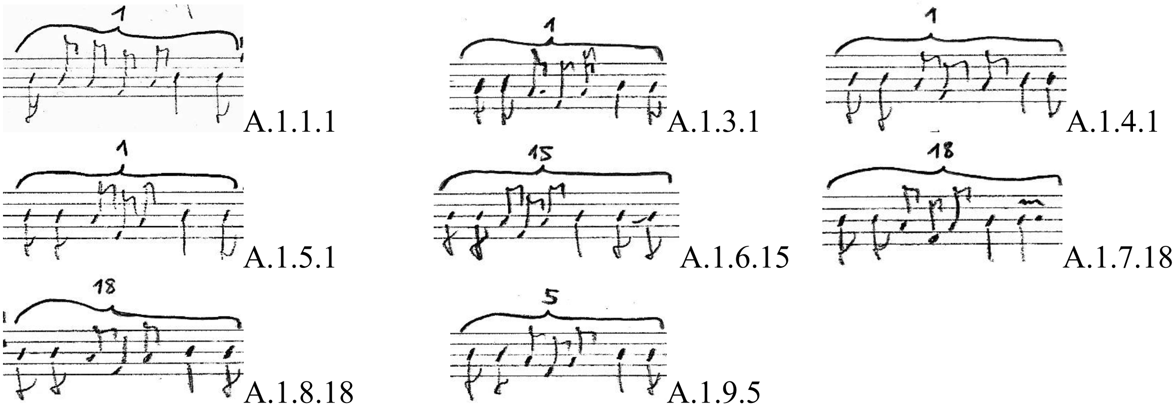
5.4.2.1 Subject 1 Version (S1):

Figure 16


A
1.1
2.2
2.3
2/4
6.4
A`
3.15
6.6
9.7-8
B
5.12-13
8.33-34
B`
3.28-31
(p)
5/8
2/4
A``
5.16-17
9.24-26
A```
5.20-21
7.7
6.8
B``
3.26
3.29-31
B```
5.12-13
5/8
2/4
6.31-32

In this particular S1 version (figure 17), I found that it was important to include the motifs related to the original motif "a" (figure 3) that would present a repeated note as their last one instead of a note moving a second downwards. This feature was a consistent part of the renditions of the tune that the subject 1 showed. Here (figure 18) there is a series of examples that show the presence of this feature through most of the experiment. (representative melodic figure for subject 1)

Figure 17



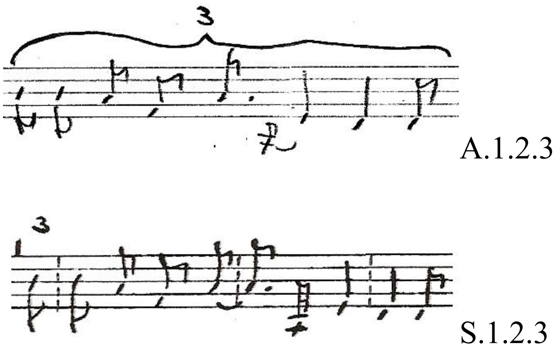
A.1.1.1 A.1.3.1 A.1.4.1

A.1.5.1 A.1.6.15 A.1.7.18

A.1.8.18 A.1.9.5

There are also two melodic figures that were included due to their ability to add asymmetry and/or polymetry. In S1, the motif 2.3 could be identified as a “mistake” in the context of the original recording and here it is being utilized because it makes the regular 8 bars length of the A phrase to change into a 9 bars length phrase, which tends to reproduce certain atmosphere of instability that was often present during the performance of the early “attempts”. Figure 19 shows how the motif looked in the first transcription and how it was rhythmically adapted to fit in the “version” per attempt. After that, the low A note correspondent to the sixth note in the motif, was transposed an octave up, due to the need of re-interpreting S1 in an instrument that does not reach that pitch.

Figure 18



A.1.2.3

S.1.2.3

The second asymmetrical melodic figure included, correspond to an interpretation of a quite frequently encountered feature…the adjustment of tempo. I felt that since I had a model from which the decisions were being made, it turned quite easy to interpret and adjust “messy” duration features in order to make them fit in a regular tempo.[32] The adjustment normally consisted on the subtraction or addition of a 16th note, or the approximation of the "problematic" duration to the next 8th or 16th note depending on what was needed. In the case of the figures shown in figure 20, I decided not to adjust anything and keep the durations as they were perceived. Following the relation motif/bar-line that characterizes the "original" melody, the result of this was the apparition of a 5/8 measure, which produces the switch between our original down-beat tempo to take position in the up-beat. This same figure was utilized twice during S1 in order to revert the rhythmic situation created and be able to end the tune in the "normal" way.

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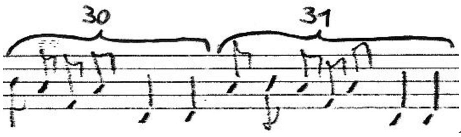
[32] What i mean with ”regular tempo” is a constant beat. Lets say something like ♩=100bpm.

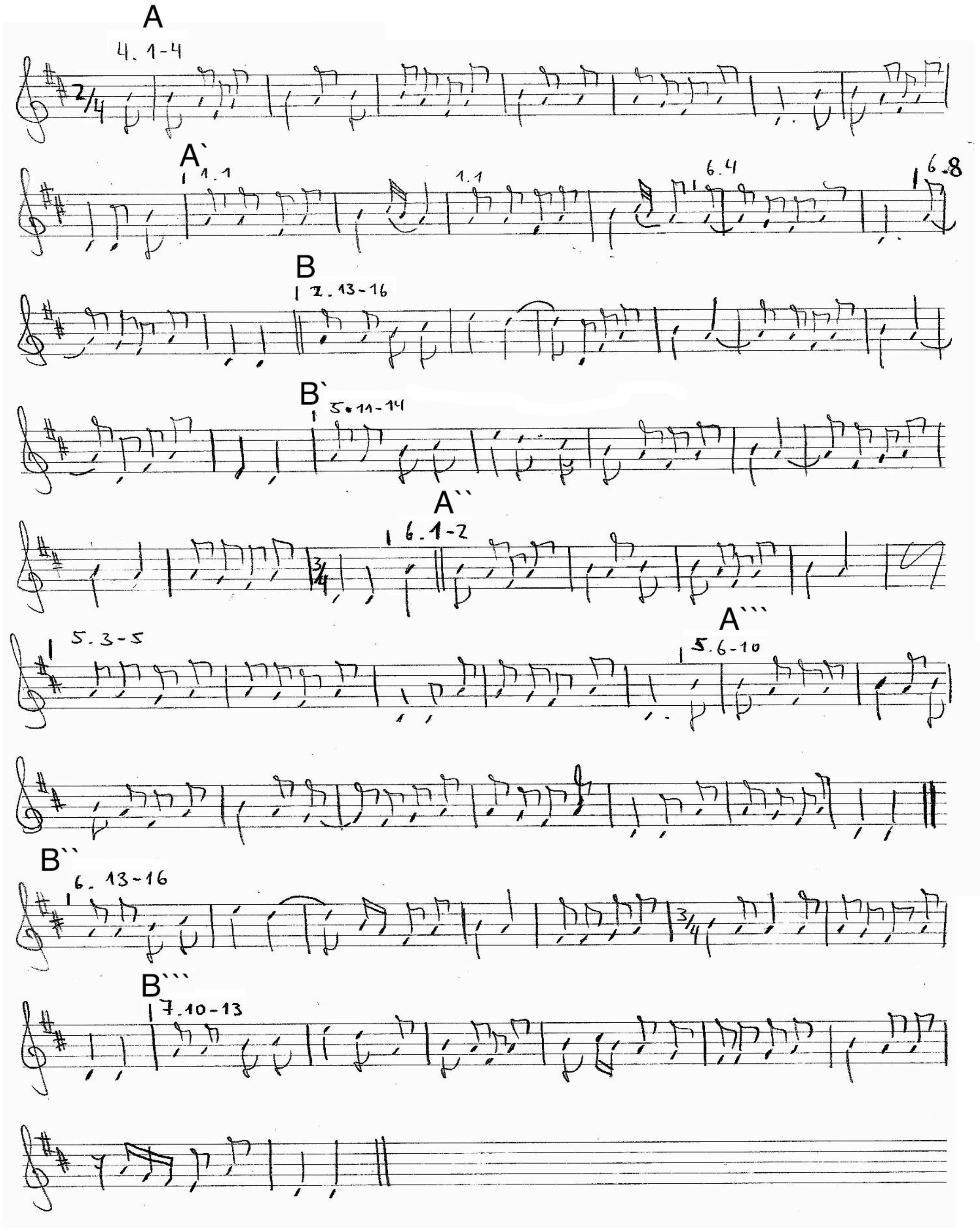
Figure 19



A.1.3.30-31

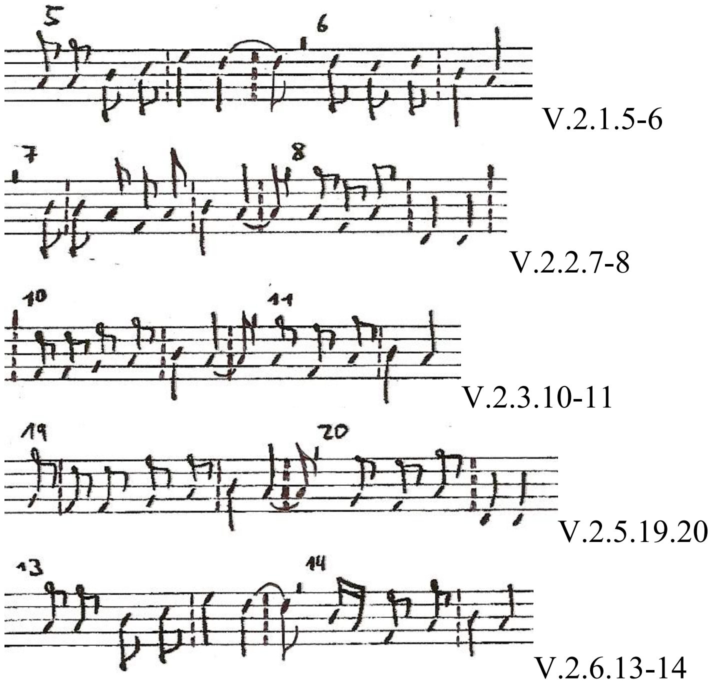
The rest of the motifs chosen to be part of S1, were selected taking in account various parameters. Normally the addition or subtraction of notes, and the alteration of durations and intervallic proportions (compared to the "original" motifs) were desirable features to be found and utilized.

5.4.2.2 Subject 2 version (S2):



In the early and middle “attempts”, subject number 2 developed a quite consistent rhythmic variant to the “original” rhythmical pattern (figure 10), which I wanted to include in S2. The variant takes place in the conjoining portion of some groups of two motifs, and could be described as the prolongation of the last note of the first motif followed by a late beginning of the second motif and its consequently reduction in length. It also could be seen as the anticipation and lengthening of the beginning note of the second motif that produces the elimination of the first motif´s last note. Whatever the case, we could say that involves the syncopation of the rhythmic figure, and the following examples show some of the portions in which this quality was made evident. (representative melodic figure for subject 2)

Figure 20



V.2.1.5-6

V.2.2.7-8

V.2.3.10-11

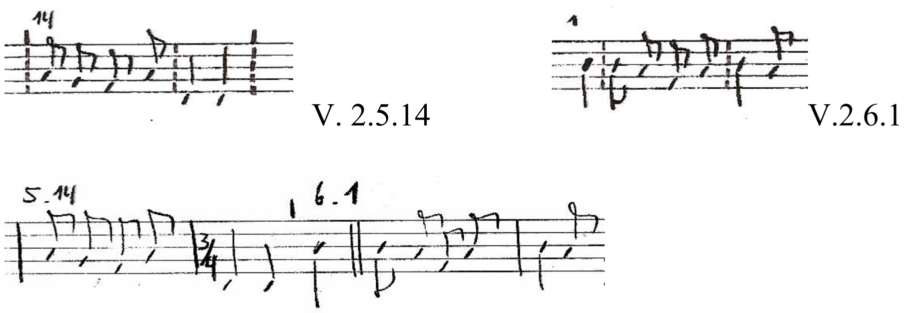
V.2.5.19.20

V.2.6.13-14

It is needed to mention that this rhythmic quality disappeared after the 6th "attempt" of reproduction.

To a certain extent the melodic portions that were found as contributing to the creation of traits of asymmetry/polimetry, seemed to be of a different nature as the ones utilized in S1. The performance of subject 2 was in general quite smooth and fluent so any addition or subtraction of melodic material was easy to capture in a regular tempo grid.

Figure 21



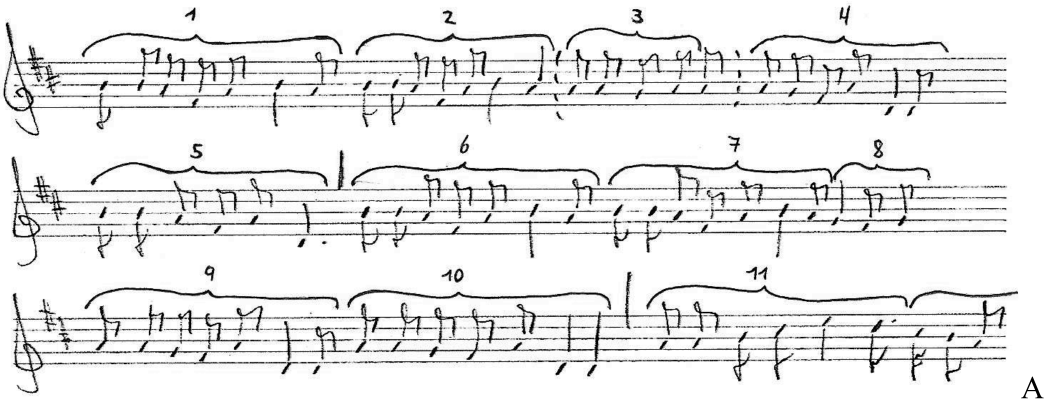
V. 2.5.14

V.2.6.1

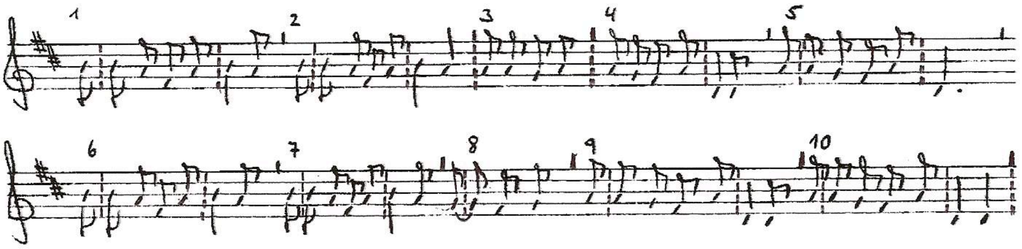
Figure 22 above, shows how the two initial motifs were used in order to be able to coexist in S2. They were simply put side by side together making the addition of the original durations able to create a 3/4 measure. The presence of this feature at the end of the first repetition of the tune and acting as a “bridge” to connect with the beginning of the second repetition slightly adds certain degree of dynamism to the passage.

Phrases A`` and A``` are both composed by nine 2/4 measures each. Both of those phrases’ origins are to be found in the transcription “attempt” A.2.5.
The way in which the portion A.2.5.1-10 was interpreted in order to take part, first in V.2.5 and in S2 afterwards, can be seen in figure 23 below.

Figure 22



A.2.5.1-10

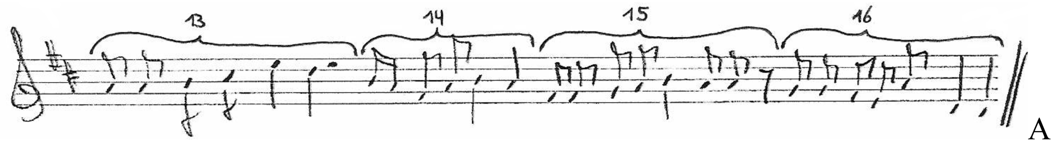


V.2.5.1-10

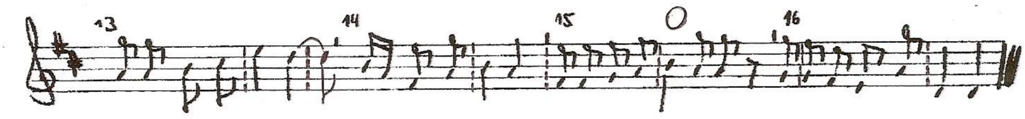
As it can be seen in the image above, the motif A.2.5.3 comes from an originally longer motif, it was reduced in length in order to continue with a steady 2/4 time signature. In the case of motif A.2.5.8 there was no need of any adjustment other then drawing the bar lines that define its further status. The whole V.2.5.1-10 section is the main constituent part of the phrases A`` and A```, only the motifs 1 and 2 of that selection have their origin in a different place (figure 22).

Another polymetric passage is found in the phrase B``, the lengthening of the figure represented in motif A.2.6.15 is interpreted as a 3/4 bar inserted in the 2/4 bar general environment of the tune. The interpretation of the entire phrase is shown in the figure 24 below.

Figure 23



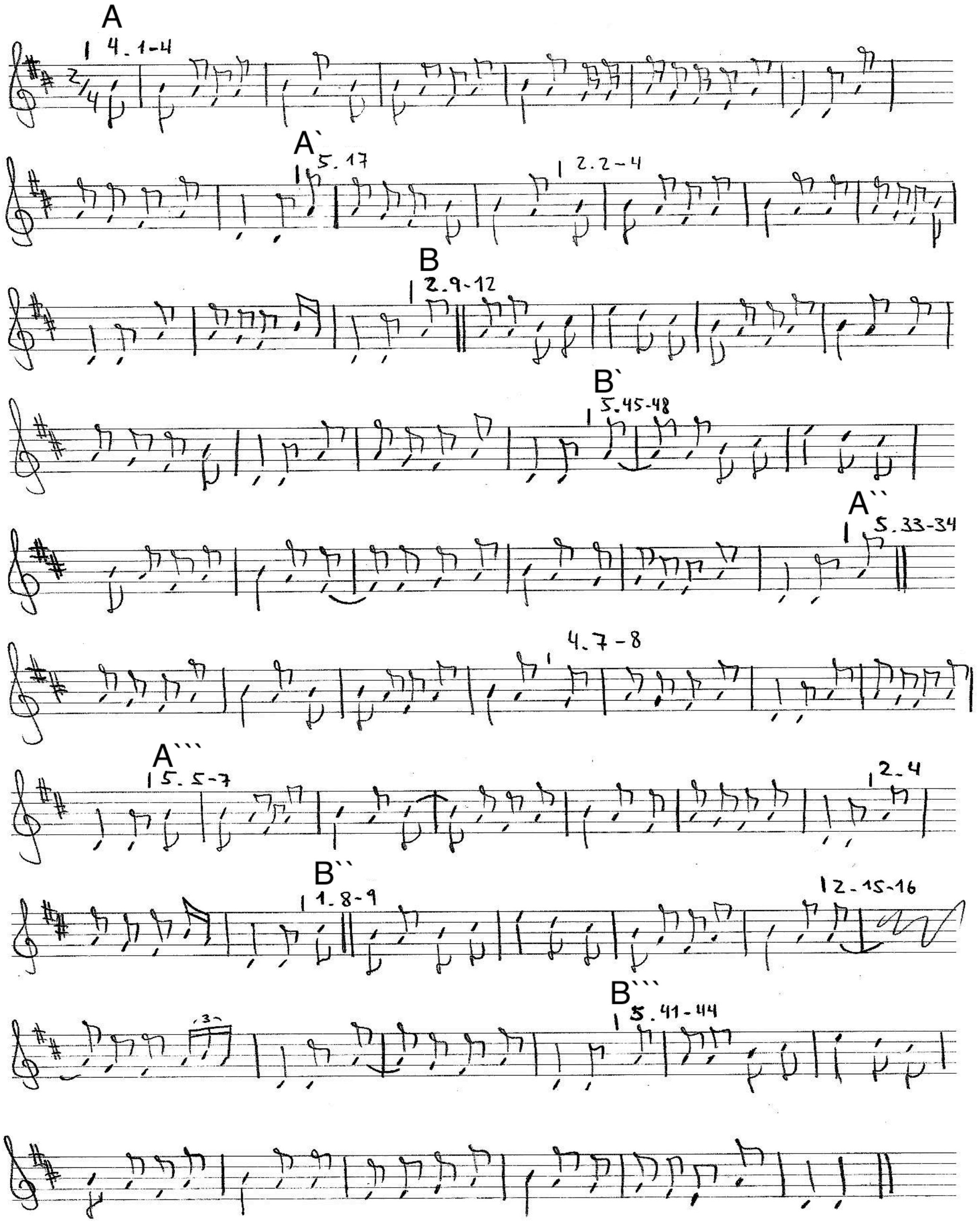
A.2.6.13-16



V.2.6.13-16

Similar to S1, S2 was constructed trying to utilize the motifs that were able to introduce the most varied features in to the version. And at the same time trying to maintain a stable general structure and melodic progression.

5.4.2.3 Subject 3 version (S3):



In the “original” tune the whole melody was constructed under one single rhythmic basic pattern (figure 10), this pattern was present in the exact same form in every motif, with the exception of the motif “d” (figure 8) in which the first note in the pattern was absent. Even though that feature was in general present in the renditions executed by subjects 1 and 2, it was a feature that was completely skipped by subject number three. Each time that the motif “d” or any variation of it was played, an extra note was added at the beginning making the rhythm of motif “d” to look exactly like the basic “original” pattern. The motivic design seen in figure 25 can be seen in every attempt, along with occasional variations that maintain the rhythmic design (figure 26). (representative melodic figure for subject 3)

Figure 24

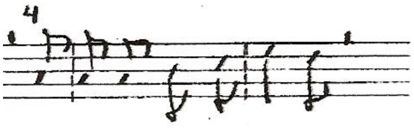
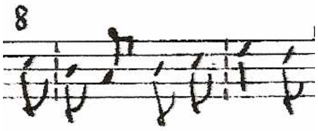


Figure 25



In S3 the previously rhythmic characteristic was considered and used as a representative trait of subject 2´s renditions.

In general there were not too many features that suggested asymmetry/polymetry in the way that the two previous subjects' transcriptions did. Within the "versions per subject" this is the most regular and symmetric of all.

Most of the motivic variations included in the construction of S3 can be defined as syncopation, intervallic proportions adjustment, rhythmic subdivision and even ornaments.

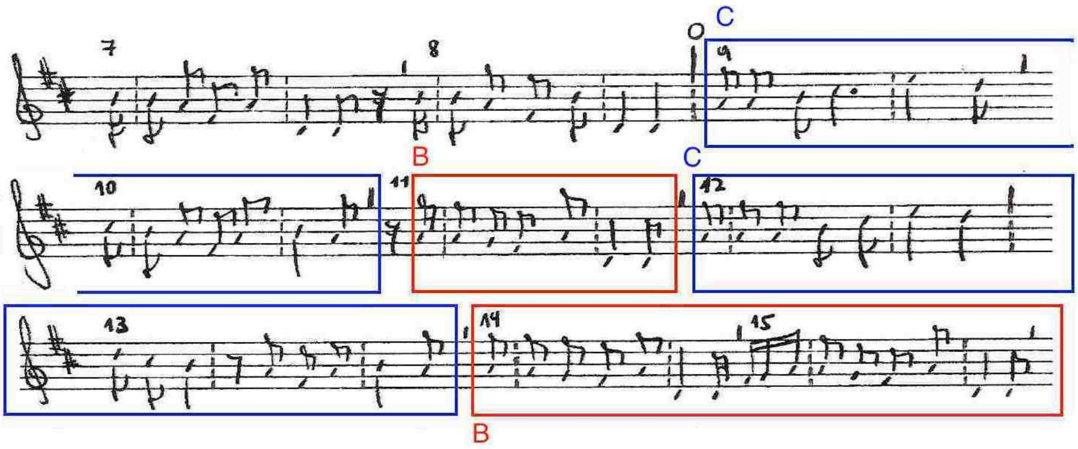
5.4.3 Form variations utilized

By comparing the transcription of the “the original” tune to the transcriptions of the attempts that the subjects executed, it is possible to obtain information that might help on giving an idea about some of the traits that are most likely to change or remain after this process of aural transmission.

In the early attempts made by subjects 1 and 3 there was a tendency to replace the semi-phrase D. Originally the phrase “B” was constituted by semi-phrases C and D. They tended to use semi-phrase B as the continuation of the phrase.

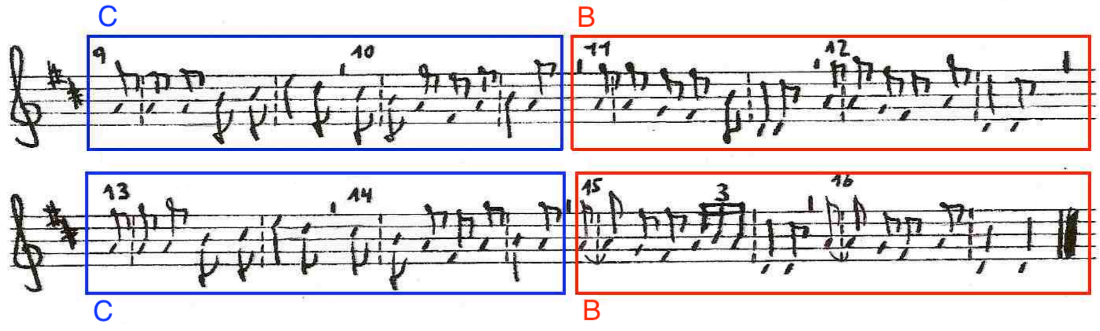
In the next two figures below, the area of semi-phrase C is represented by the blue color, and the area of semi-phrase B is in red.

Figure 26



A.1.2 (extract)

Figure 27



A.3.2 (extract)

5.4.4 Criteria used for the interpretation of versions.

5.4.4.1 Reinterpretation of the constructed melodic material

After the process of constructing each of the three kinds of versions (per attempt, per subject and latest versions) was finished, and in order to; first, facilitate the appreciation of the phenomena in question, and second, to show the potentiality of the process as a generator/enhancer of products of artistic value, I recorded every single of the resultant versions in audio format. The recordings can be found in the CD attached.

5.4.4.2 "Versions per attempt"

In this case, the emphasis was put in maintaining the rhythmic and pitch features obtained in the score, trying to avoid ornaments and embellishments as much as possible for me, in order to maintain certain stylistic neutrality. Even though at least some of them could, they don´t intend to claim artistic value, instead they are intended to stimulate and facilitate the observation of the process. These sort of plane versions display a wide array of features that sometimes differentiate them and some others makes them similar, some of them are quite "disorganized" and one could hardly label them as a proper tune, and most of the others are quite, for the lack of a better word, "normal".

Another important role that these versions had played in the process, has to do with their utility as links between the material described by the actual transcriptions, and the following versions (per subject and latest). They allowed the observation of the novel motifs within their context and provided a "preview", a "try out" for the involved melodic figures and the behavior of their specific qualities. They enabled me to acquire a more practical appreciation of the melodic traits that could be useful as building blocks for the next step in the creation of variations, and also helped me observe the kinds of melodic relations that contributed or not to the fluent progression of the tune.

5.4.4.3 “Versions per subject”

The interpretation and registration of these versions intends to increase the artistic value of the skeleton structures obtained in the previous steps of the process.

Even though the emphasis here was once more to be faithful to the rhythmic and pitch features represented in the scores, the utilization and manipulation of other musical parameters was also, as it should be expected, of the most importance. Adjustments of speed and dynamics play big role in the interpretation of these versions, altogether with the addition of ornaments and embellishments proper of the “host” instrument and my personal stylistic background.

There was certain degree of differentiation at the moment of deciding how the new interpretative parameters would be applied to the versions belonging to each particular subject. Due to the differing nature of the melodic variations encountered within those versions, I felt that in order to achieve a richer artistic result, it would be helpful to consider those differences as guidelines for the interpretation. Of course none of the decisions made can claim authority over any other options that could be suggested, and the variety of options is by no means small, but in my way of thinking, even if the options are not the best, it is always better to have some variety rather than none.

5.4.4.4 Medium irrelevance (Instrument)

If I am to answer to the question: Are really the instruments in which the melody and its variants were played irrelevant for the result of the project? I would need to answer no.

As it is very well known, every instrument has its own particularities, its technical and expressive issues that naturally influence the musical outcome.

Many of the melodic variations gathered during the experiment might have occurred due to the specific properties of the instrument played or not, and in this sense it might have influenced the transformation of certain figures, but the reason why variations appeared doesn´t have anything to do with the how I perceive the performed melody, and the way in which I render the information to make it available in notation. Neither with how I treated that collected data to produce the rhythm/pitch structures I used to develop the “new” versions of the tune.

In the same way, and even though I was strongly advised not to do so, I have tried to suggest a line that can be used to work and develop any occidental traditional kind of melody. As mentioned before, a line that intends to separate the basic structure (pitch and durations), from interpretational features that are normally associated with the stylistic behavior of a piece of music. The very existence of this line could be largely discussed, and it also could be established in many different manners, but even so, it is a limit that helps to construct an idea about the behavior of the novelties that those parameters could develop when confronted to aural transmission. Also this division acts as a tool that facilitates the re-combination of melodic portions in order to create novel melodic “raw” structures that are suitable for further development, embellishment, ornamentation and stylization.

6 Conclusions

An experience like this can help in the creation of versions of a particular melody. The amount of varying melodic figures displayed during the process is enough to elaborate individual versions that can be considered distinct from each other, while maintaining the personality of the original melody.

The process can also be useful to reveal personal characteristic traits that an individual tend to utilize at the moment of figuring out how to play a particular unknown melody. It reveals that there is an important degree of constancy on the kind of melodic variations encountered when a single individual learn a melody through a series of attempts. Although it is unlikely to help on discovering more general aspects of melodic variation… The appearance of some hints of information that point to common types of variation among only three subjects is not enough draw general conclusions. Likewise, the fact that only one melody was utilized in the process makes the task appear even more distant.

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8 Appendix

8.1 Track list of the material contained in the attached CD

1. Original Melody. Sang as it was presented to the subjects.
2. Attempt. Subject 1. Number 1
3. Attempt. Subject 1. Number 2
4. Attempt. Subject 1. Number 3
5. Attempt. Subject 1. Number 4
6. Attempt. Subject 1. Number 5
7. Attempt. Subject 1. Number 6
8. Attempt. Subject 1. Number 7
9. Attempt. Subject 1. Number 8
10. Attempt. Subject 1. Number 9
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13. Attempt. Subject 2. Number 3
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15. Attempt. Subject 2. Number 5
16. Attempt. Subject 2. Number 6
17. Attempt. Subject 2. Number 7
18. Attempt. Subject 2. Number 8
19. Attempt. Subject 2. Number 9
20. Attempt. Subject 3. Number 1
21. Attempt. Subject 3. Number 2
22. Attempt. Subject 3. Number 3
23. Attempt. Subject 3. Number 4
24. Attempt. Subject 3. Number 5
25. Version per attempt. Subject 1. Number 1
26. Version per attempt. Subject 1. Number 2
27. Version per attempt. Subject 1. Number 3
28. Version per attempt. Subject 1. Number 4
29. Version per attempt. Subject 1. Number 5
30. Version per attempt. Subject 1. Number 6
31. Version per attempt. Subject 1. Number 7
32. Version per attempt. Subject 1. Number 8
33. Version per attempt. Subject 1. Number 9
34. Version per attempt. Subject 2. Number 1
35. Version per attempt. Subject 2. Number 2
36. Version per attempt. Subject 2. Number 3
37. Version per attempt. Subject 2. Number 4
38. Version per attempt. Subject 2. Number 5
39. Version per attempt. Subject 2. Number 6
40. Version per attempt. Subject 2. Number 7
41. Version per attempt. Subject 2. Number 8
42. Version per attempt. Subject 2. Number 9
43. Version per attempt. Subject 3. Number 1
44. Version per attempt. Subject 3. Number 2
45. Version per attempt. Subject 3. Number 3
46. Version per attempt. Subject 3. Number 4
47. Version per attempt. Subject 3. Number 5
48. Version per subject. Subject 1
49. Version per subject. Subject 2
50. Version per subject. Subject 3

8.2 Attempts. (Transcriptions)

8.2.1 Subject 1

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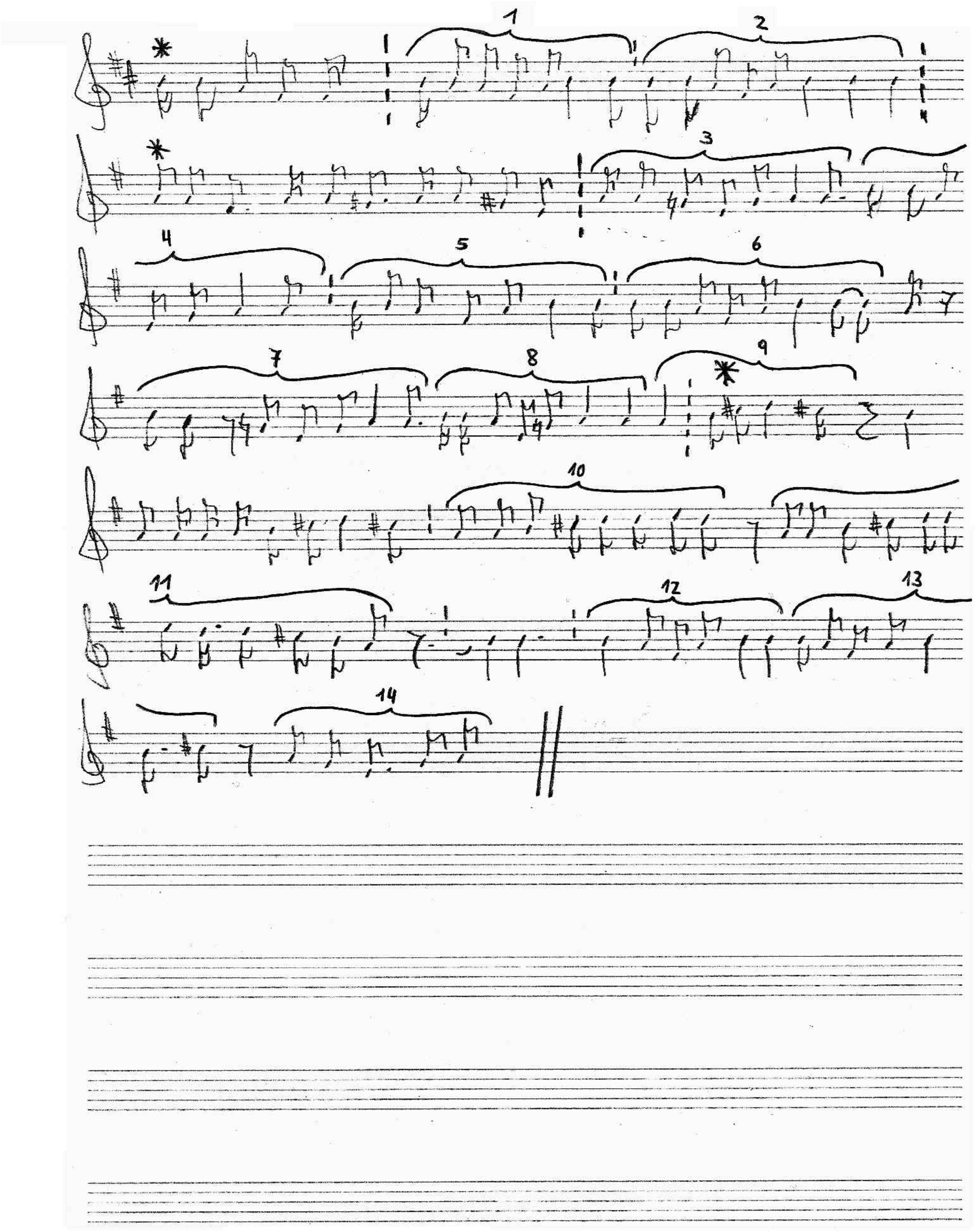
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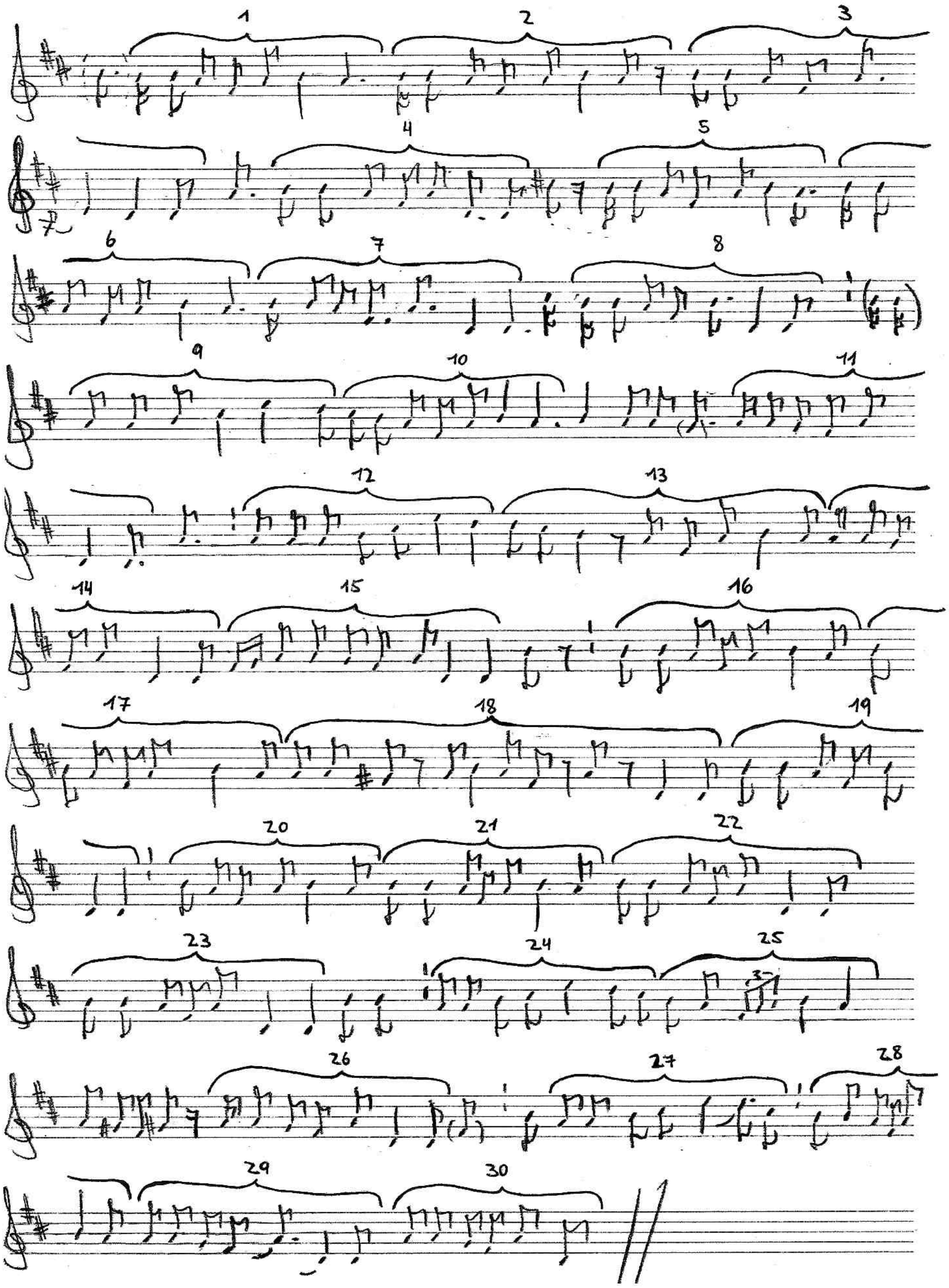

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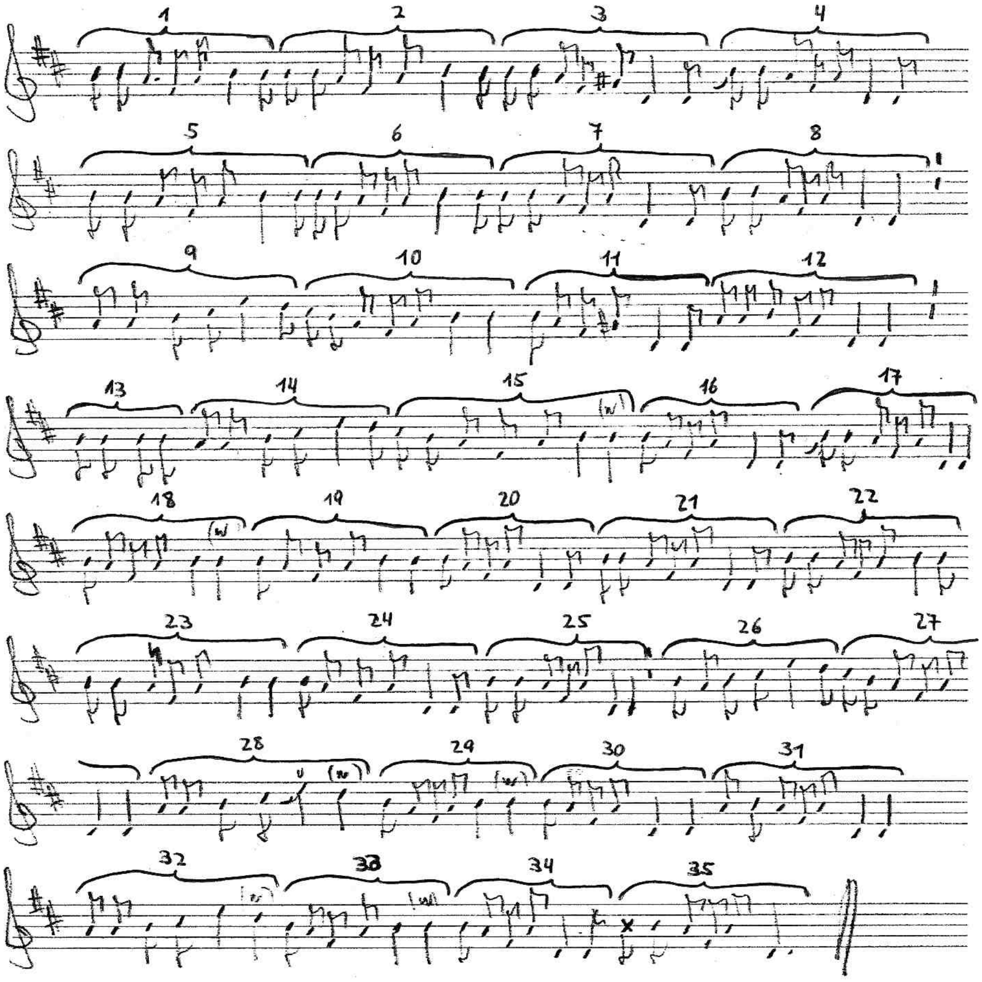

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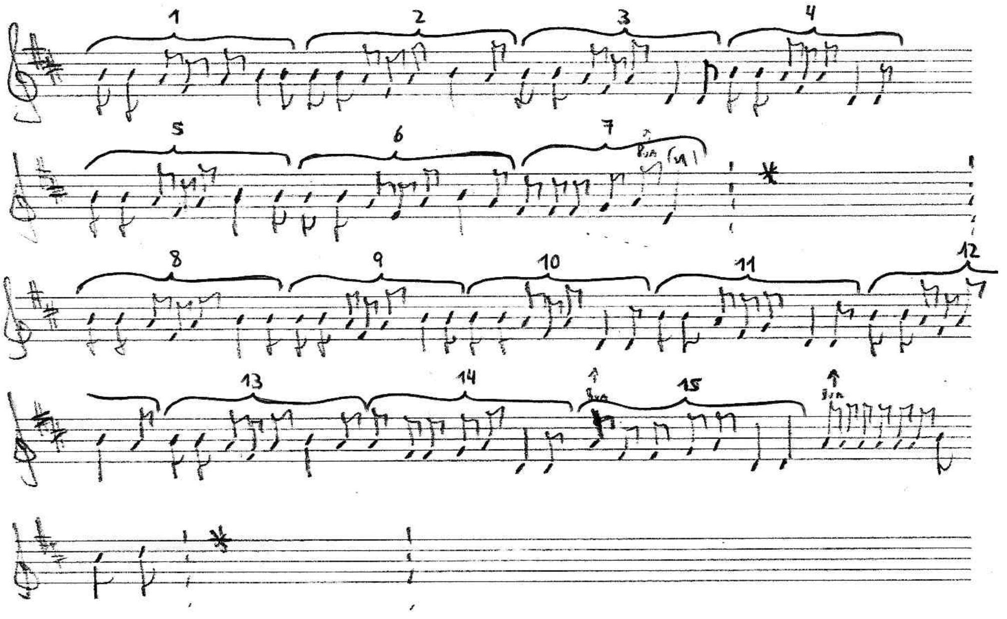
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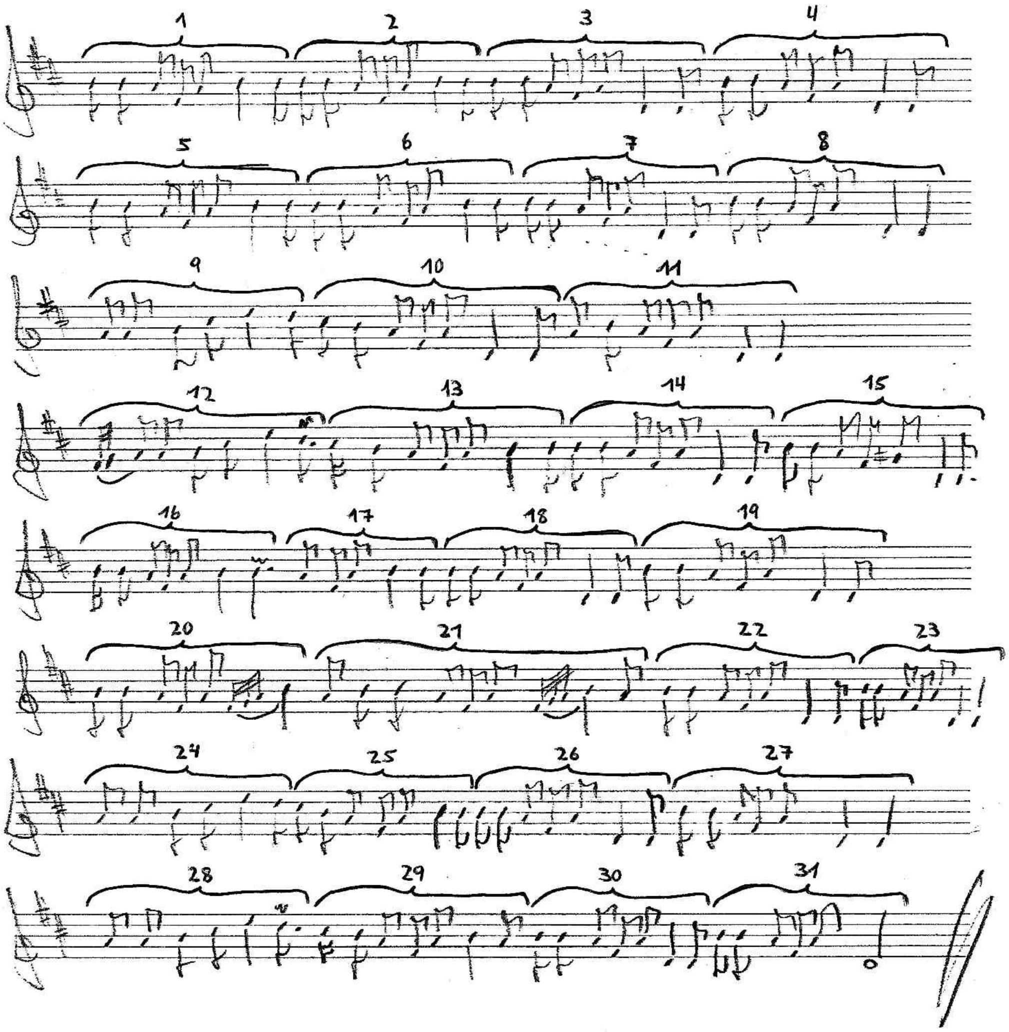

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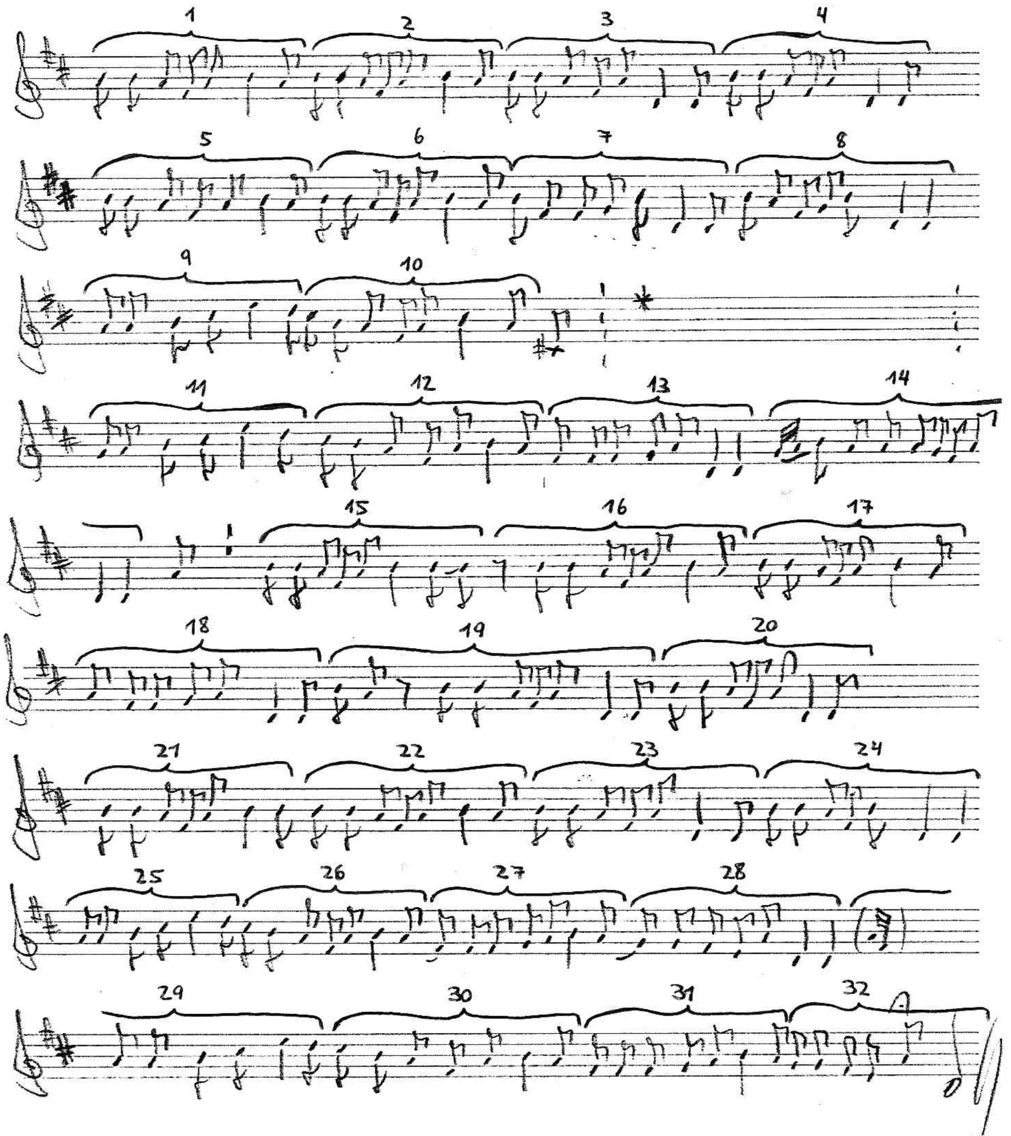

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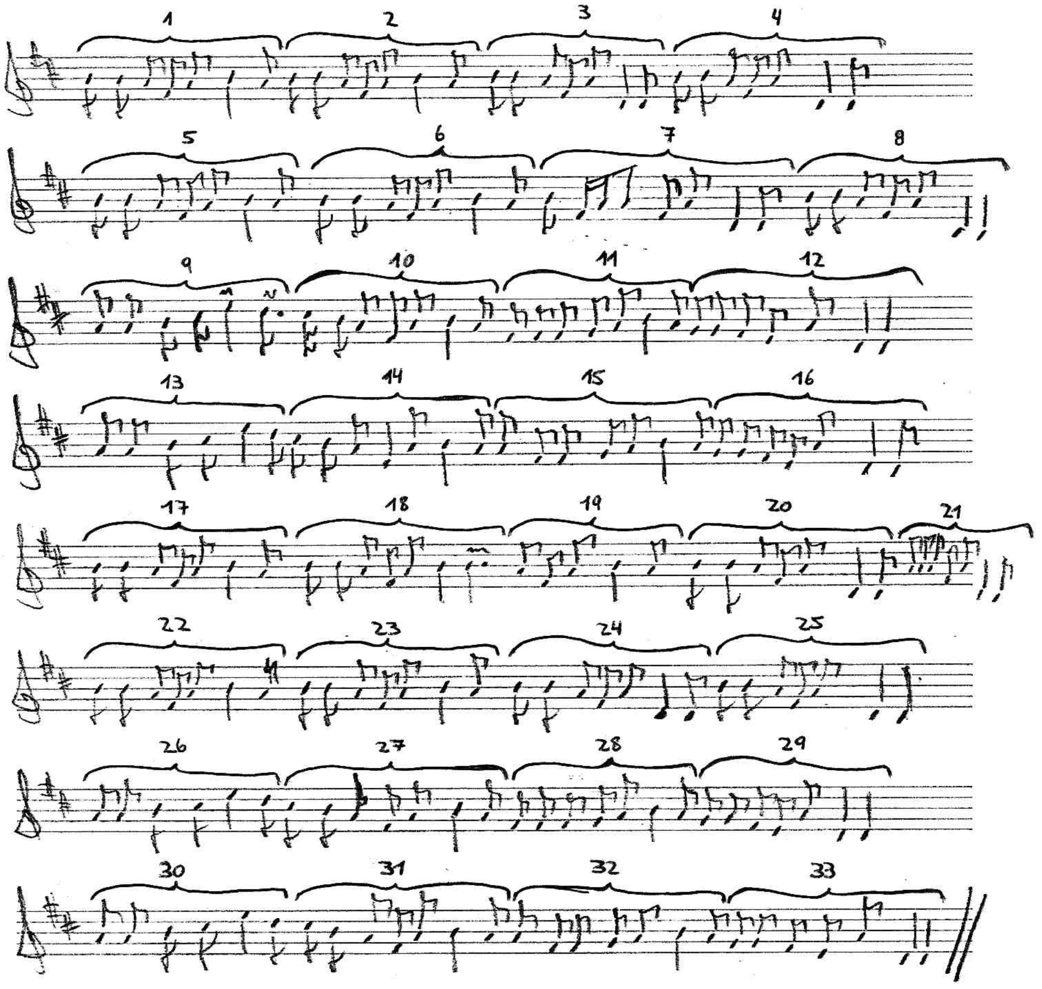

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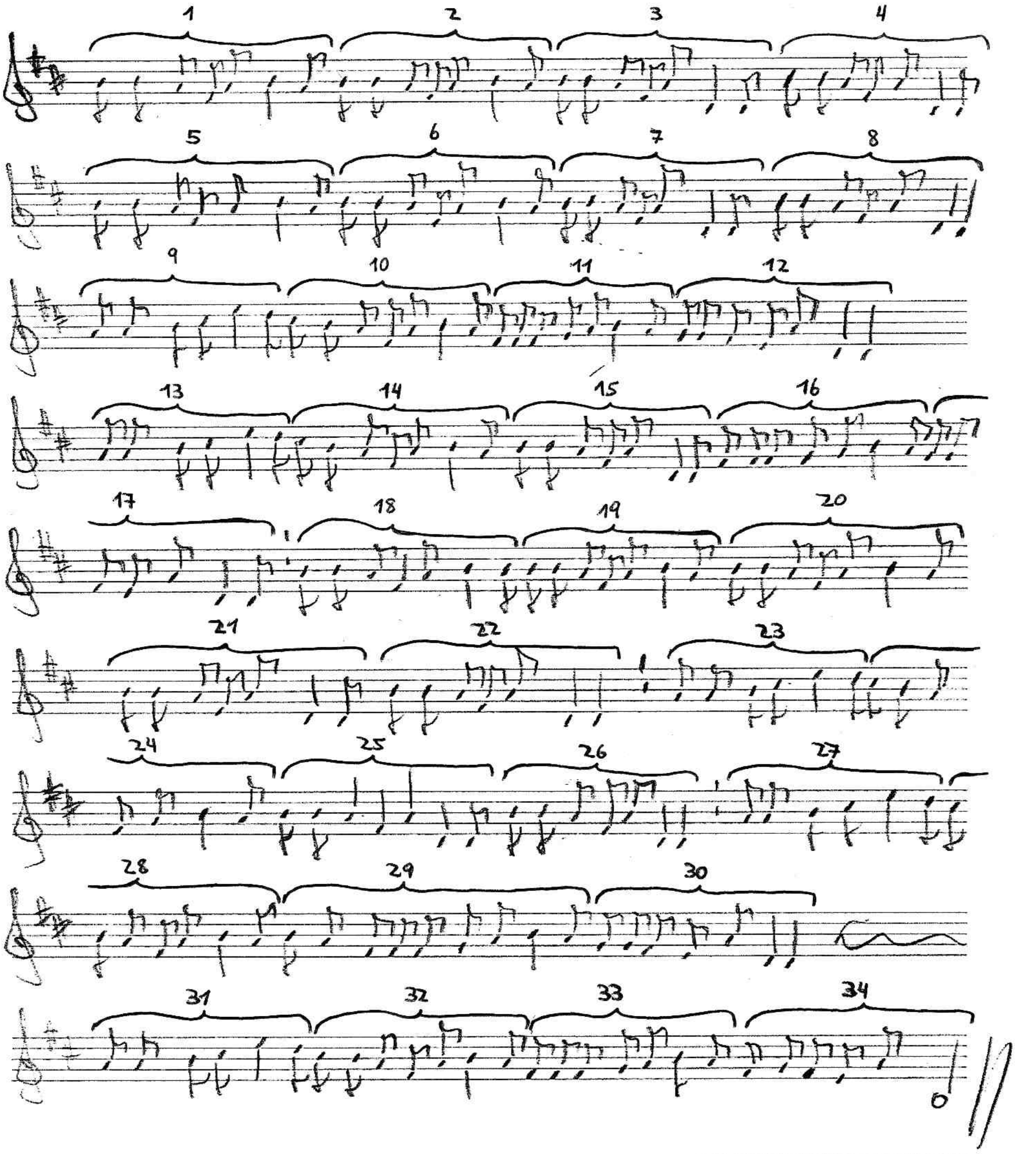

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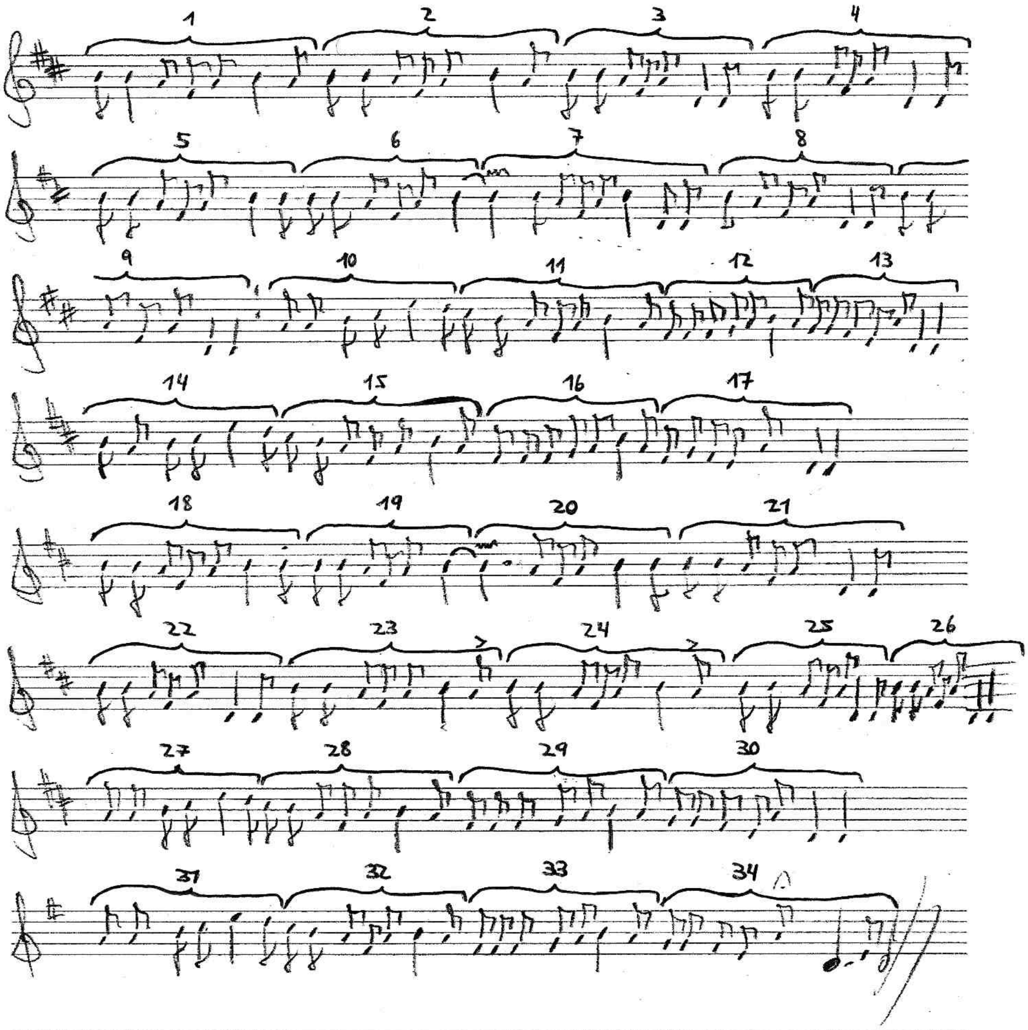

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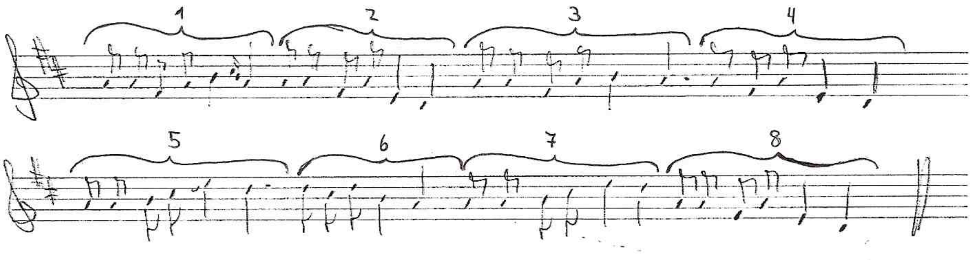

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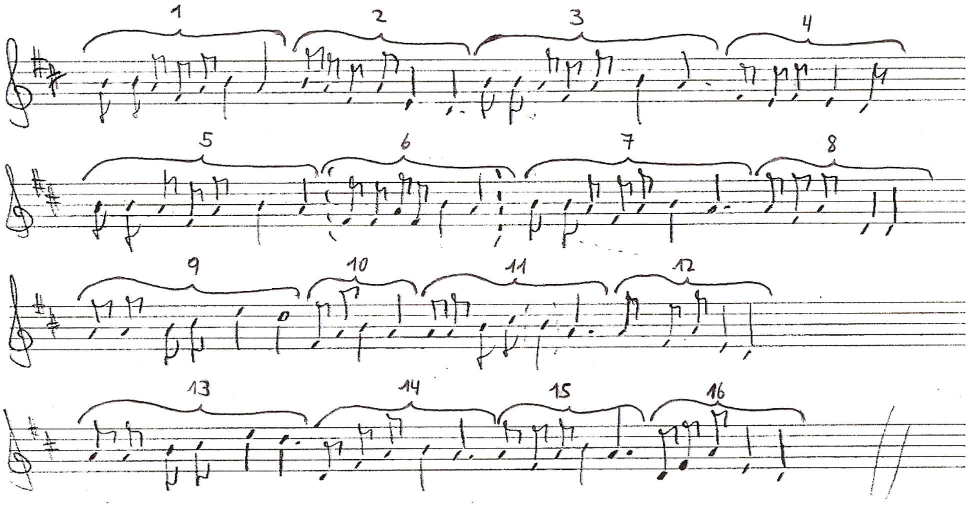
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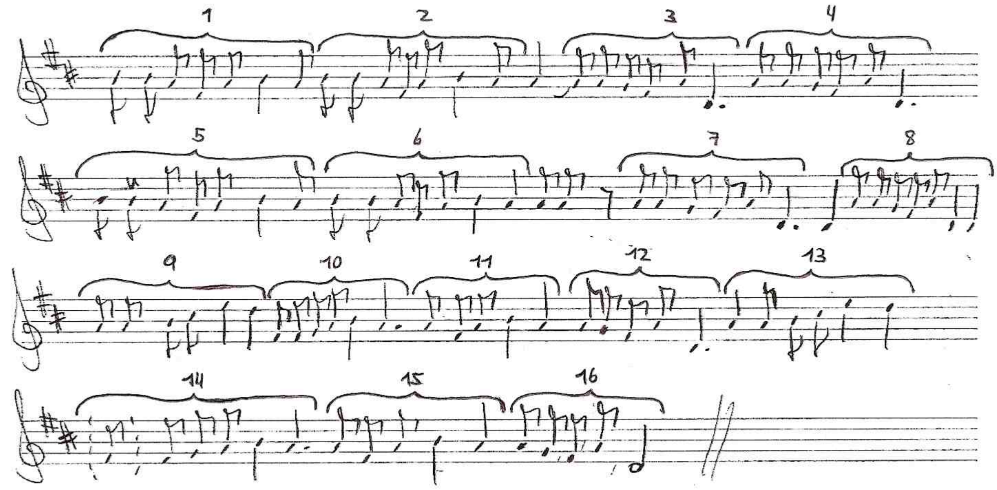
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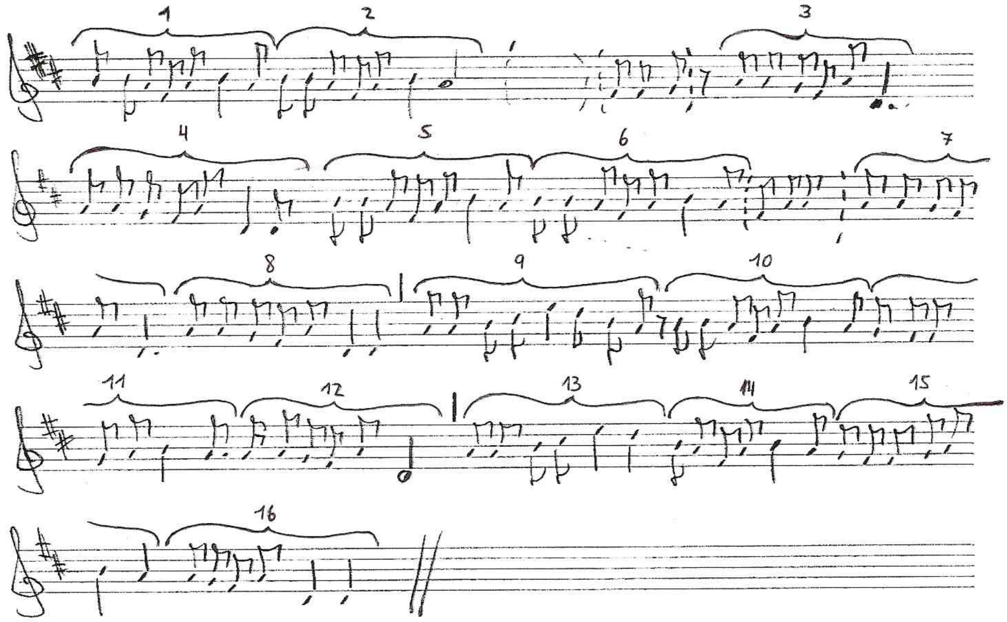
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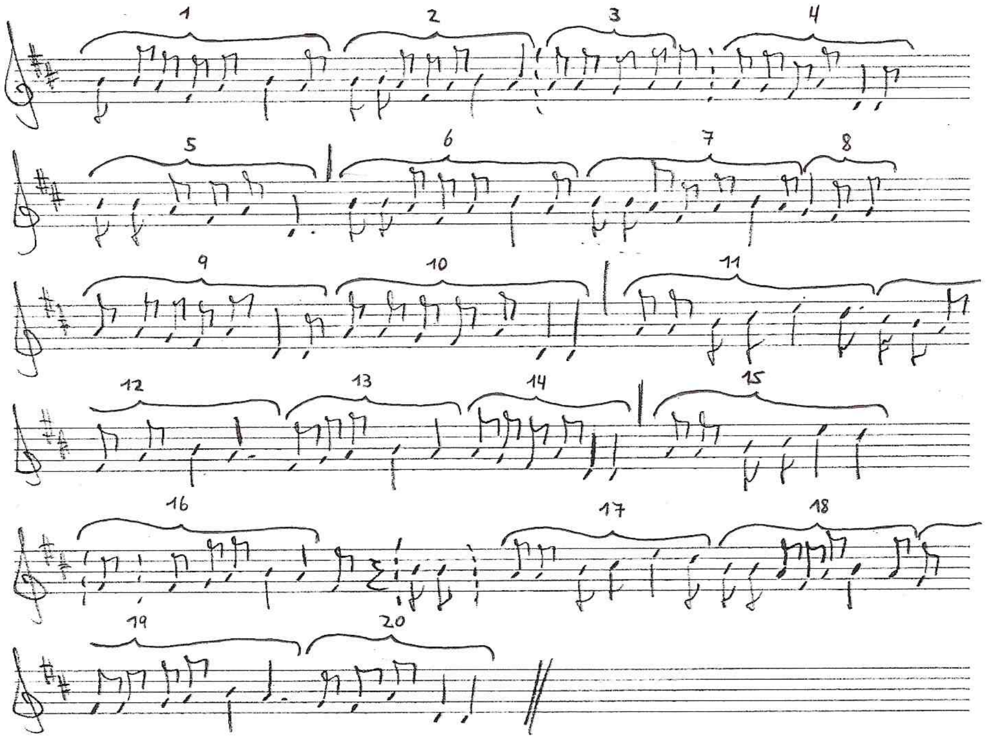
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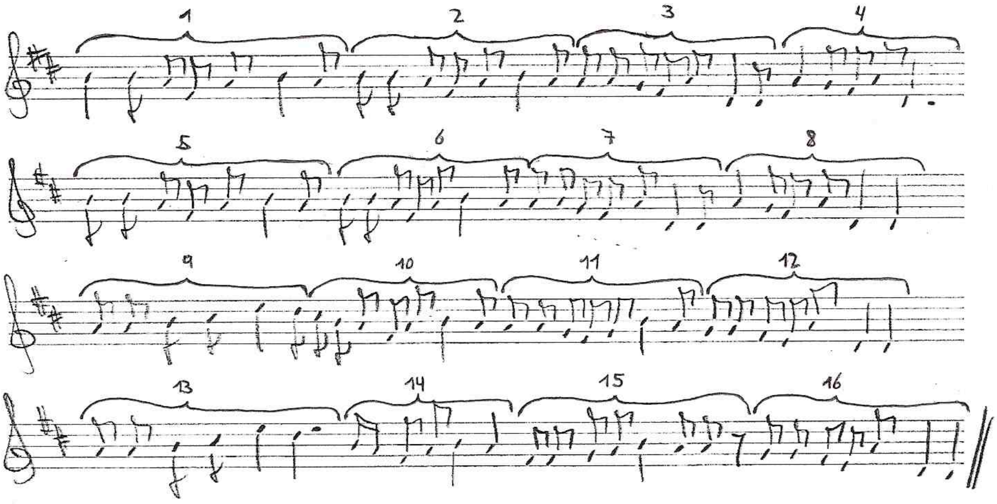
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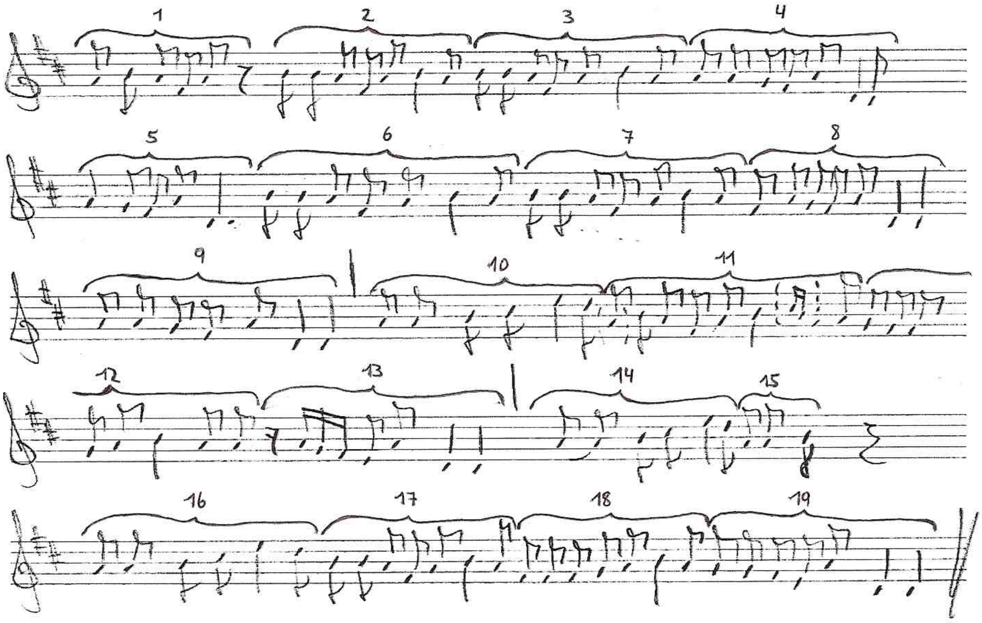
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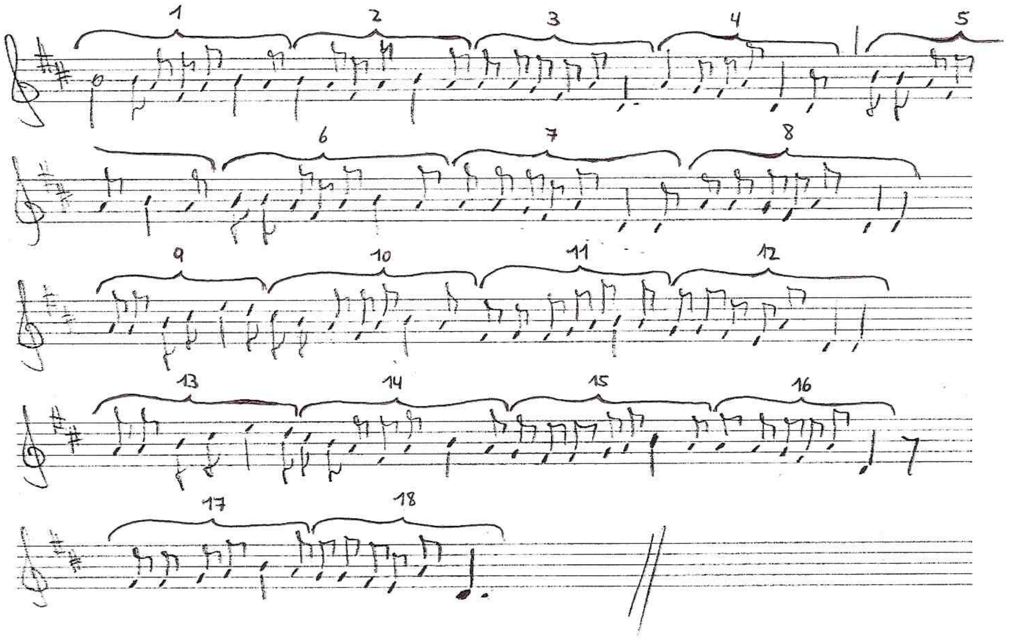
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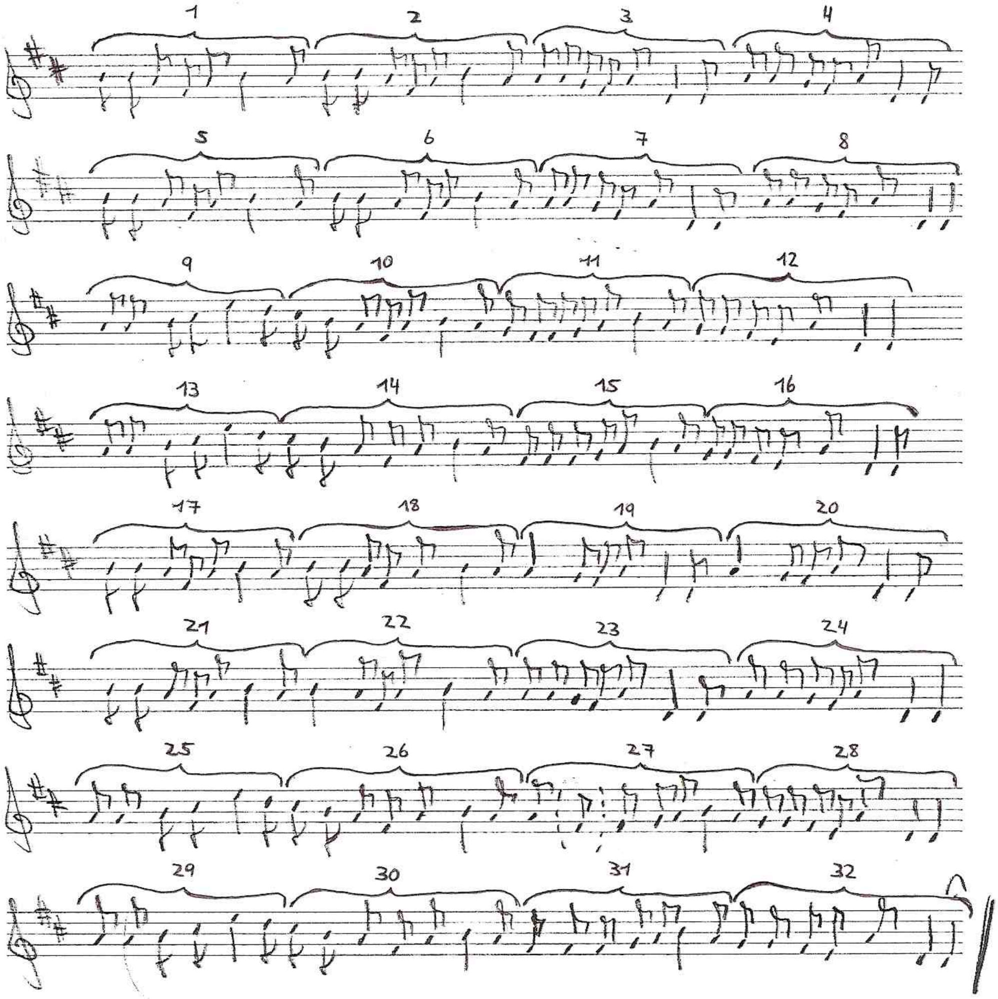

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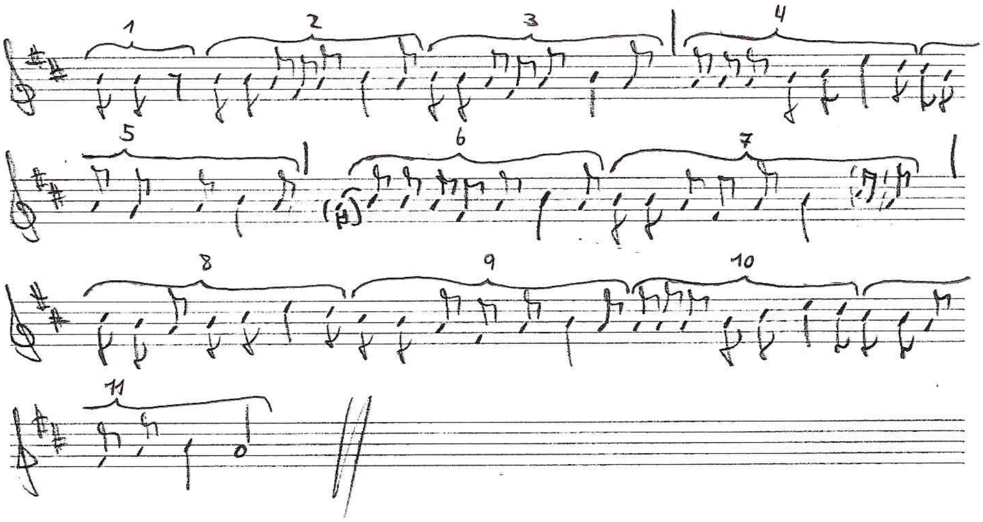
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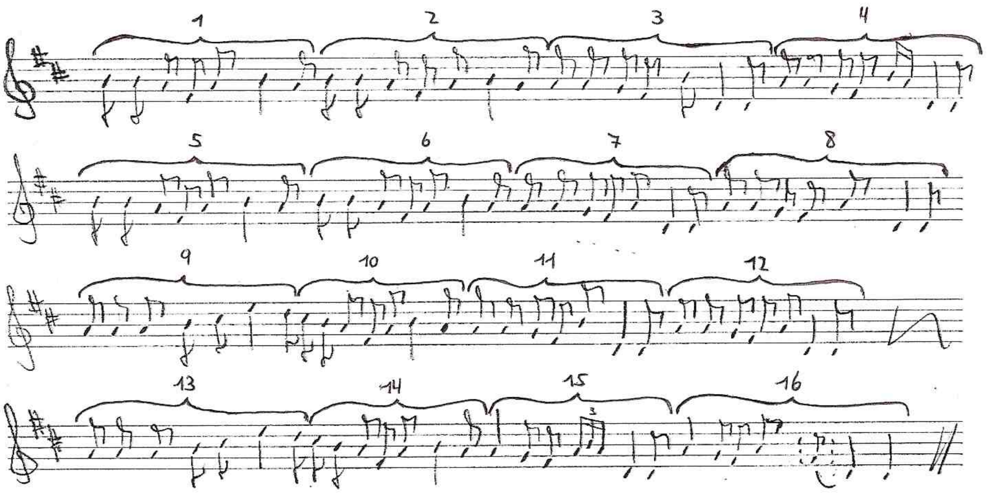
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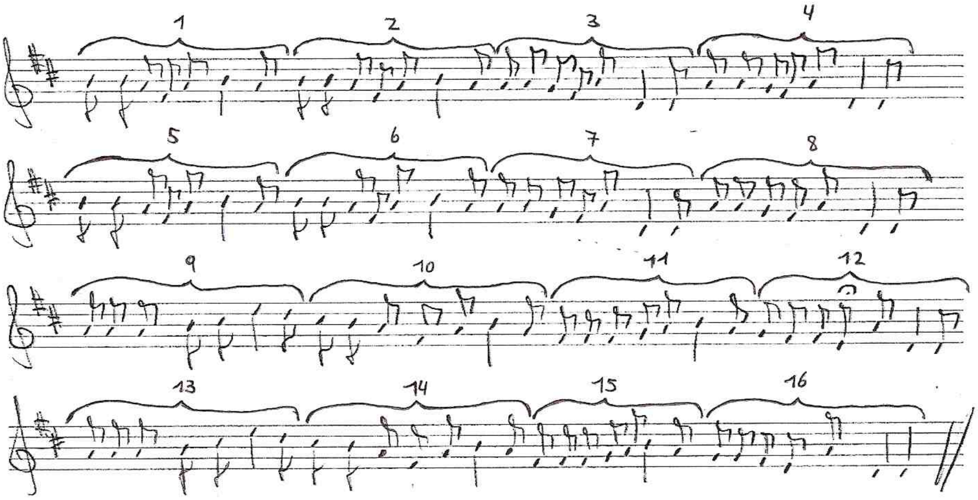
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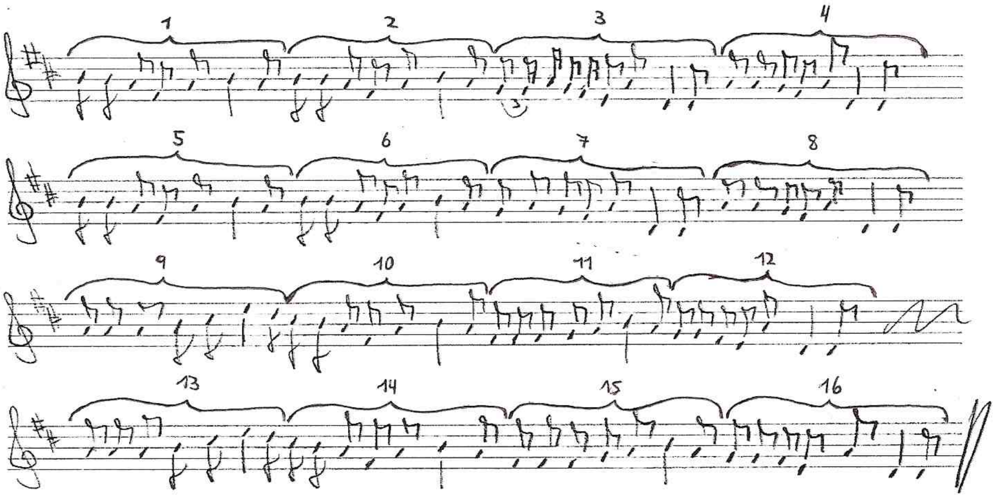
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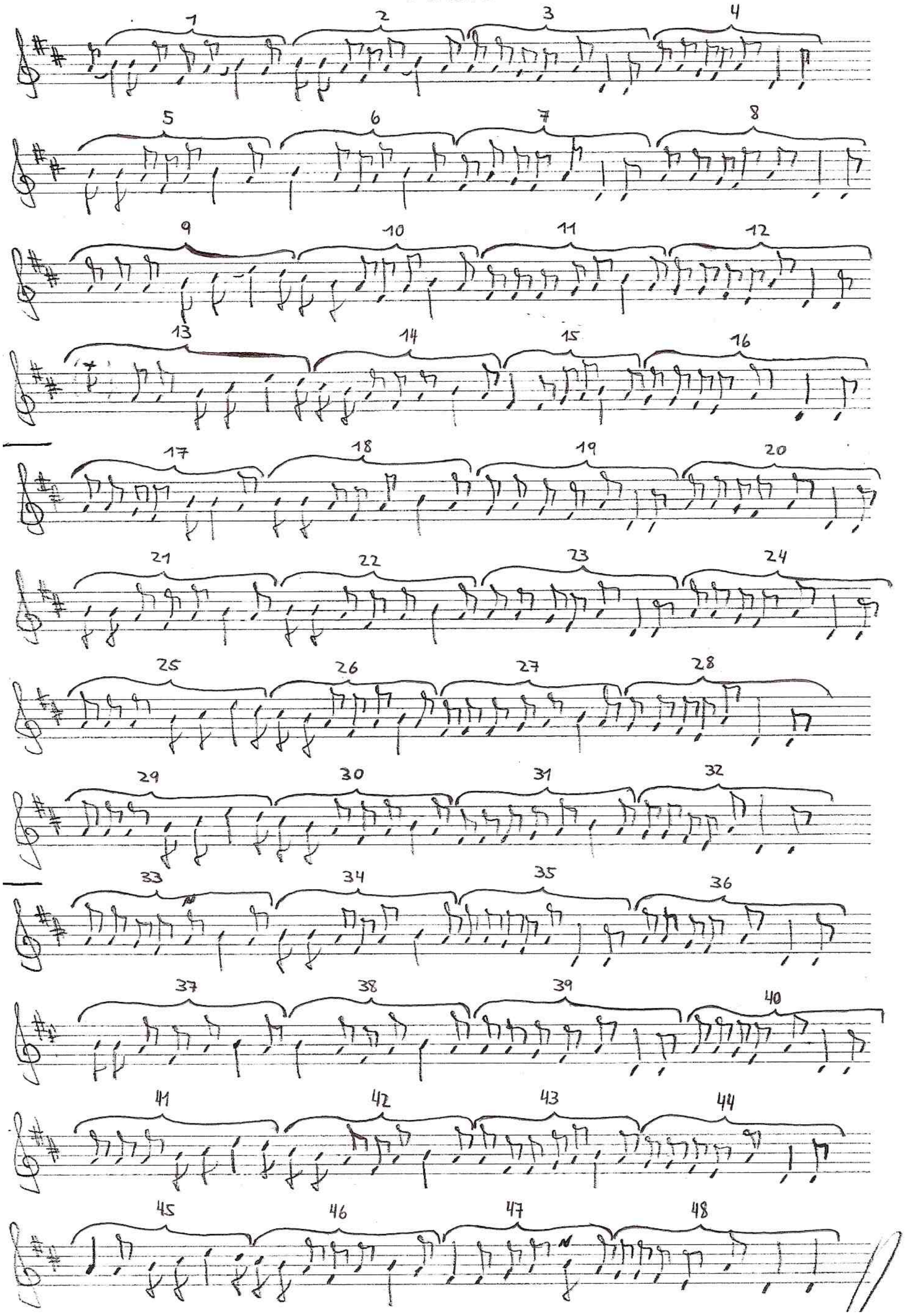
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8.3 Versions per Attempt

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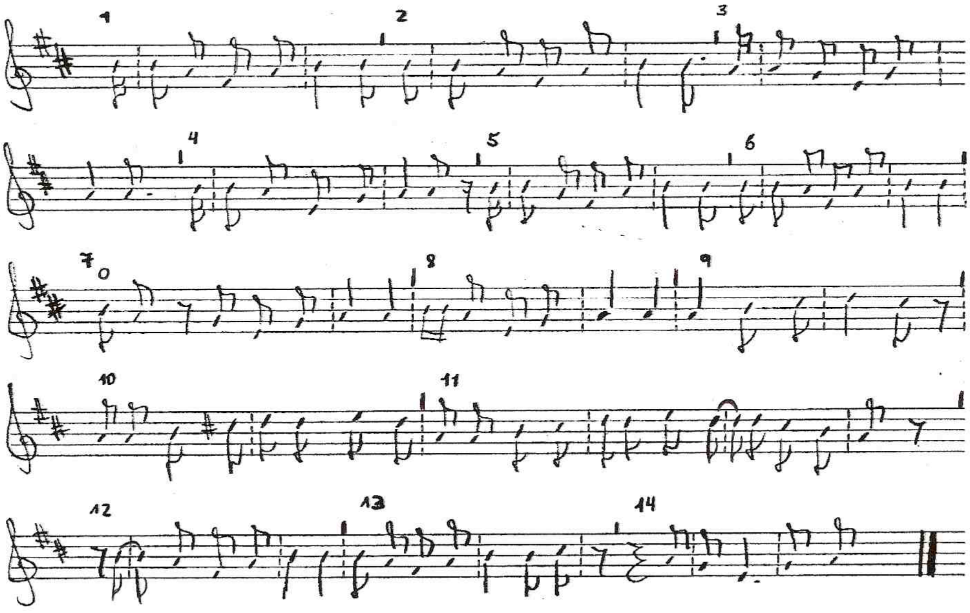
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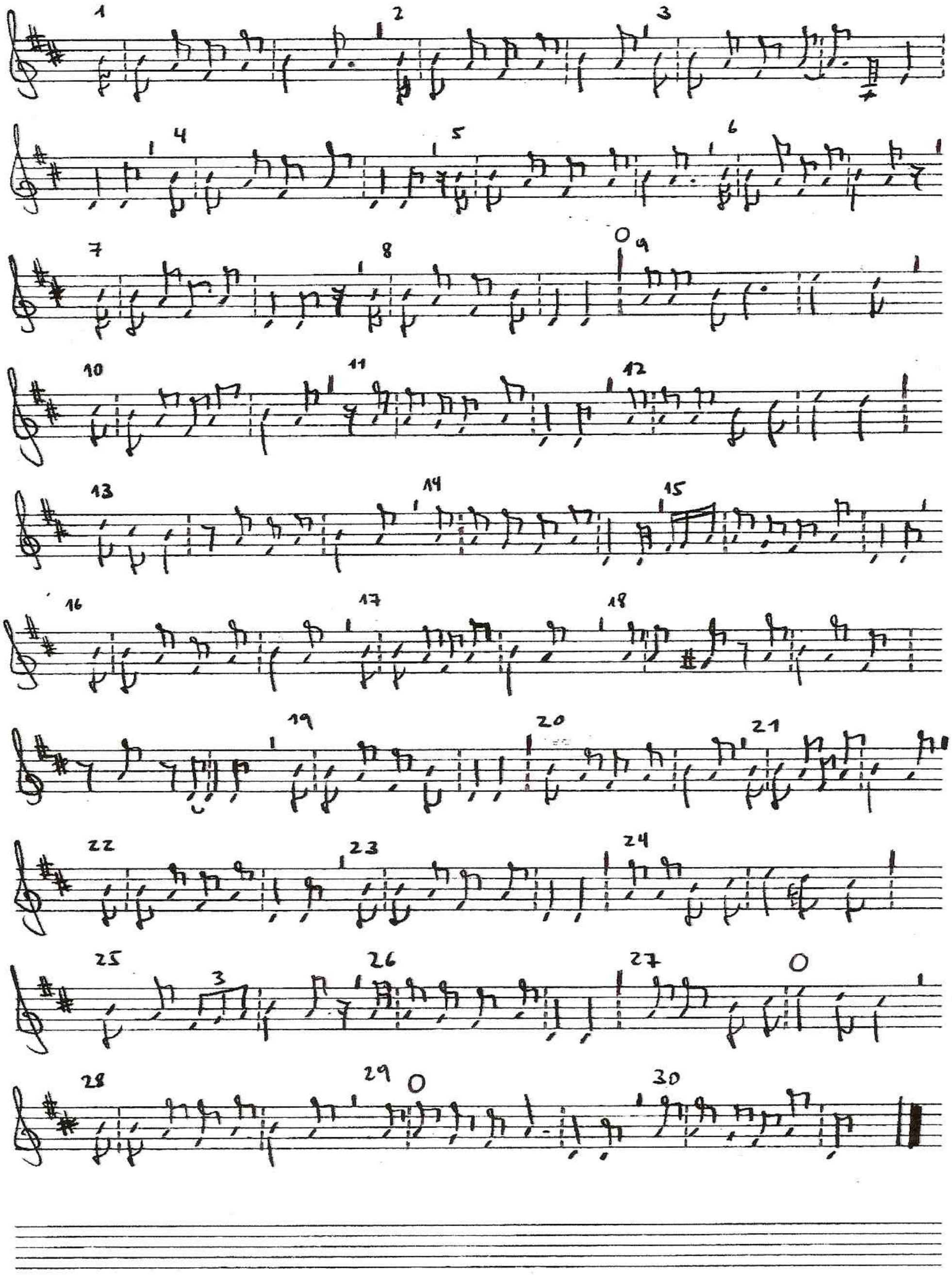

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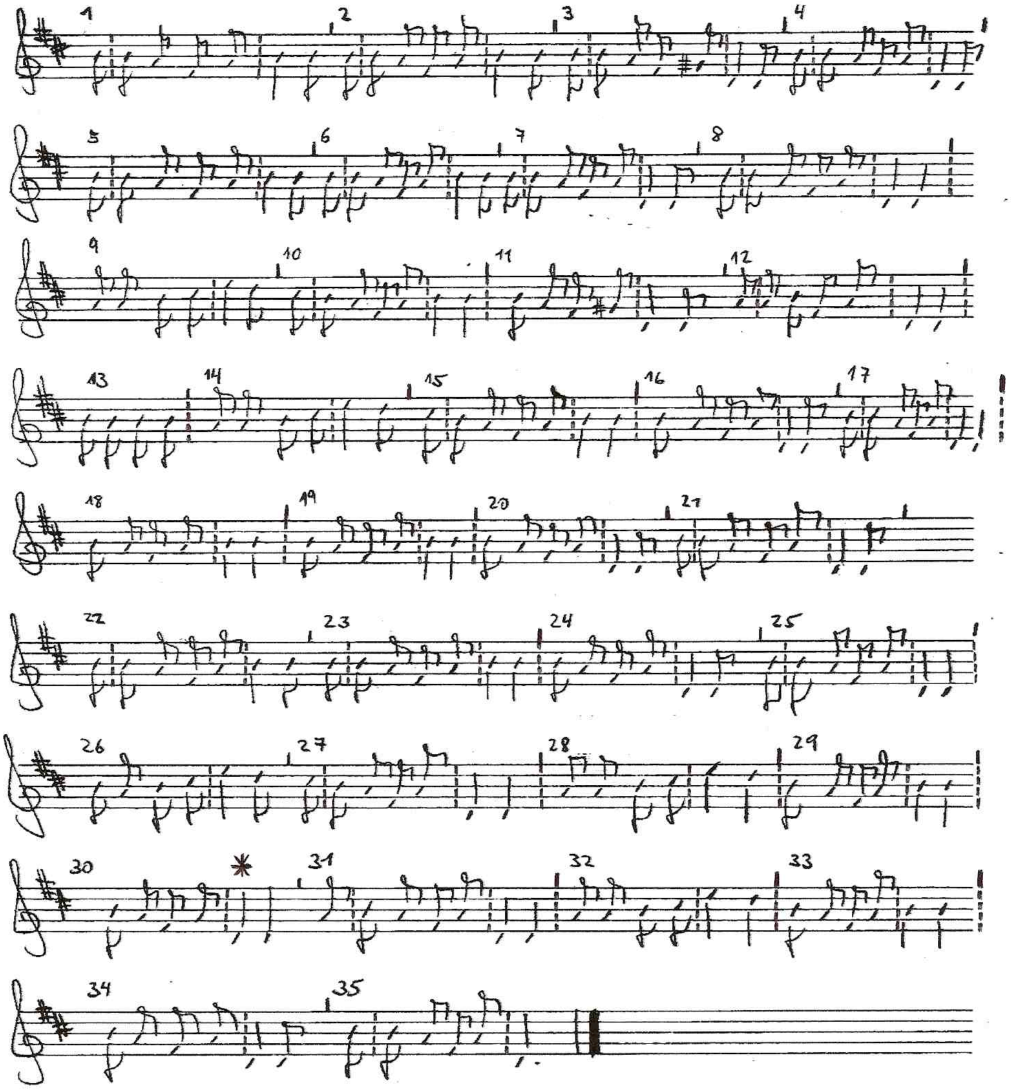
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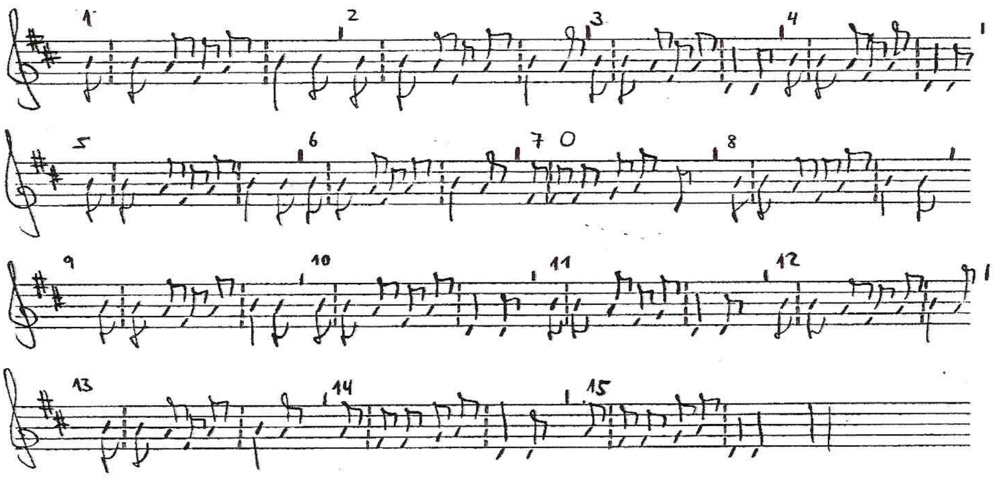
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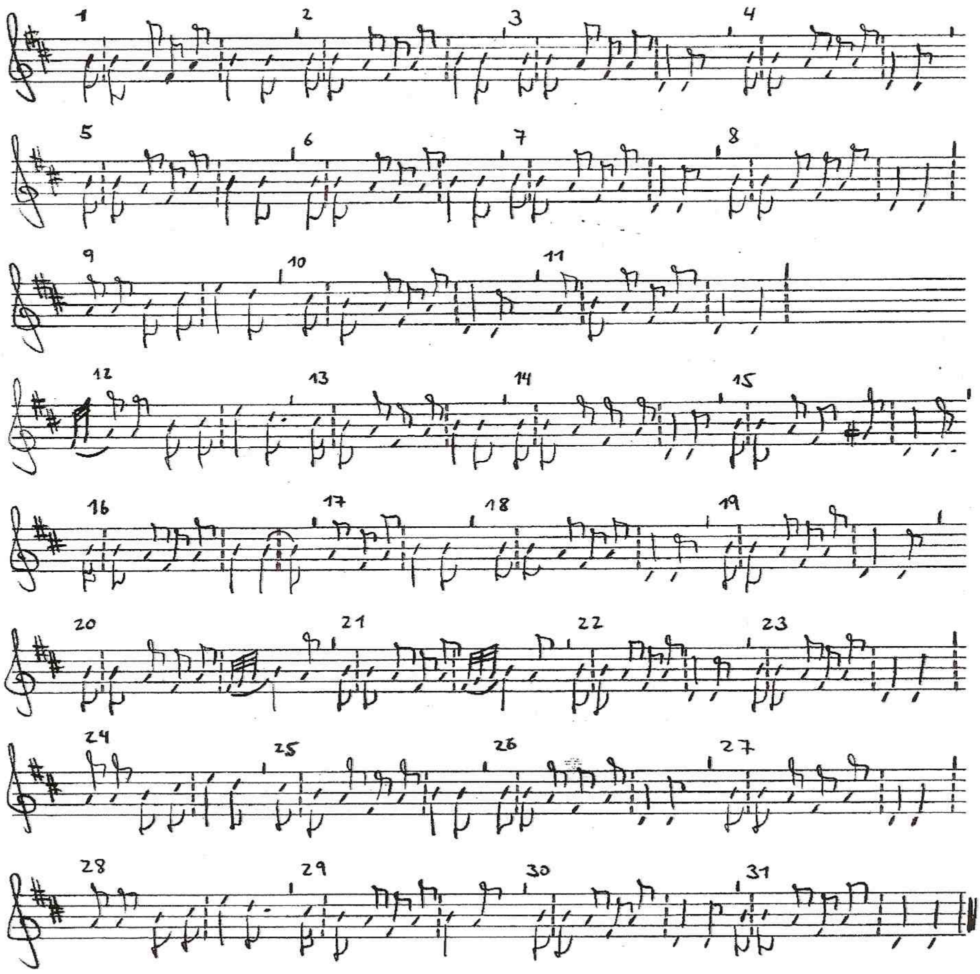

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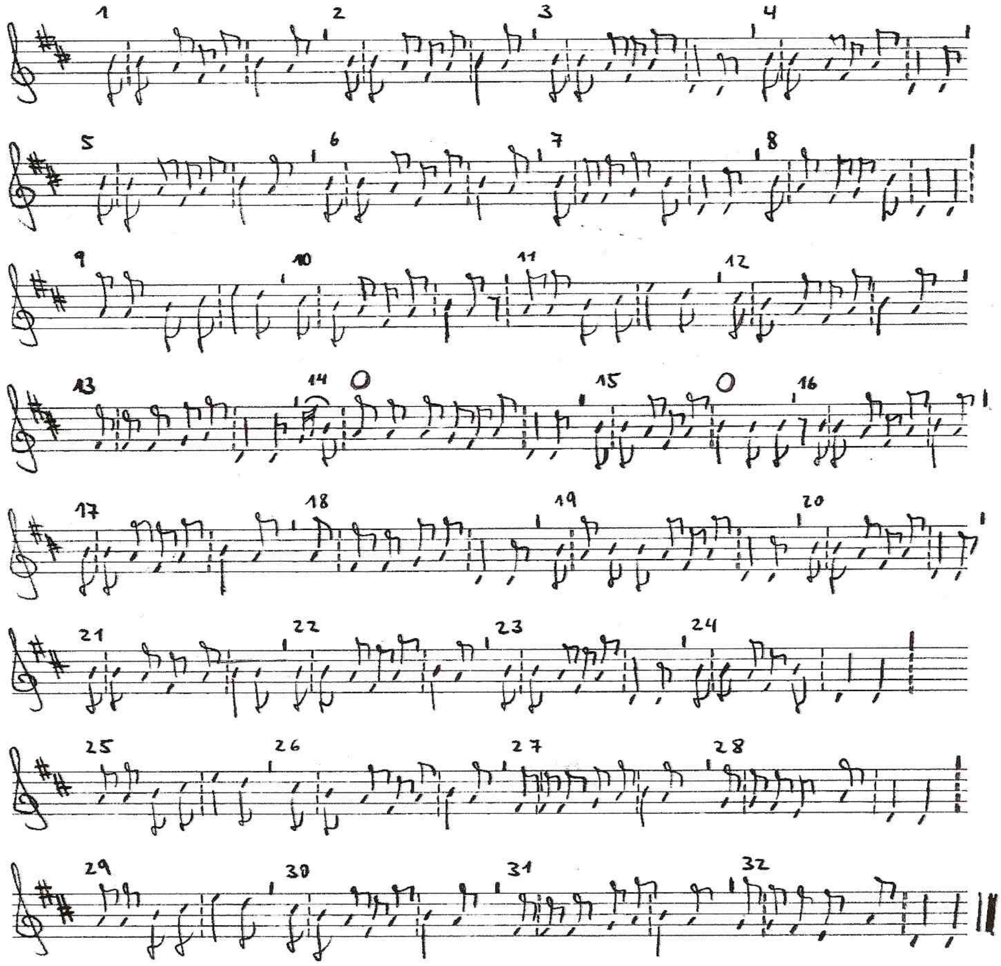

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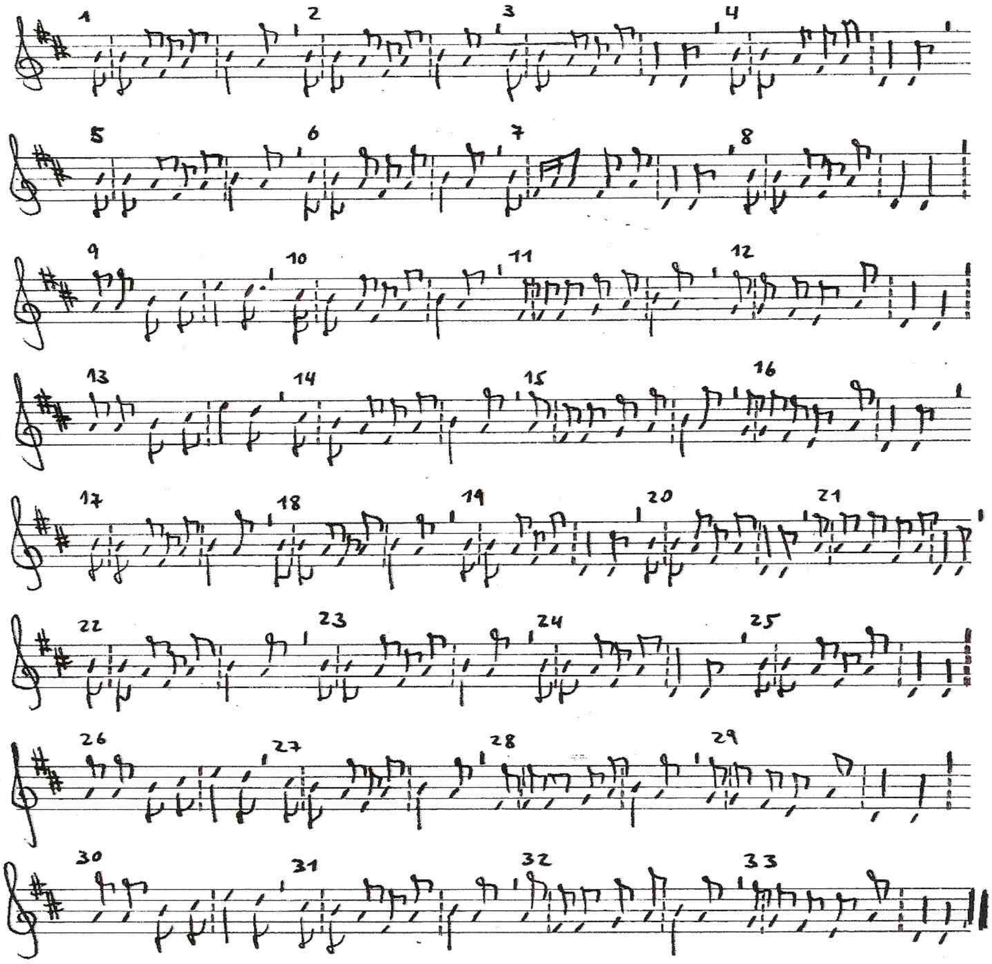

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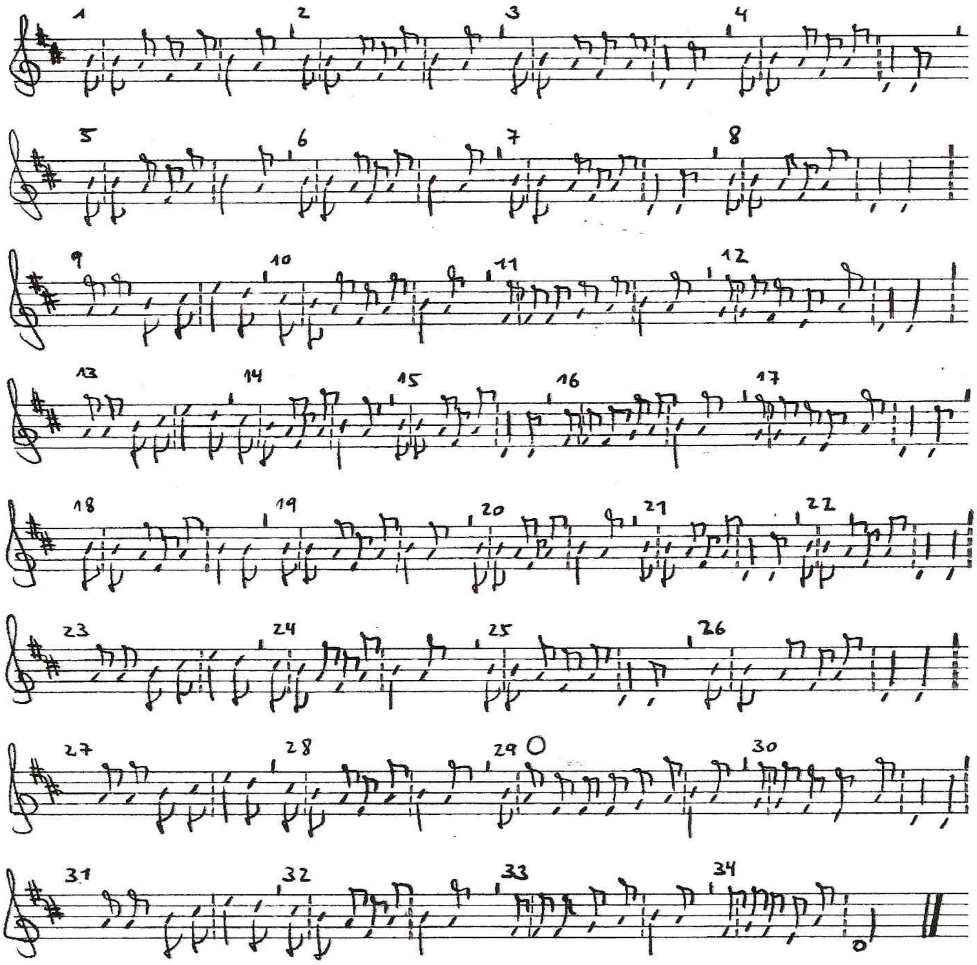

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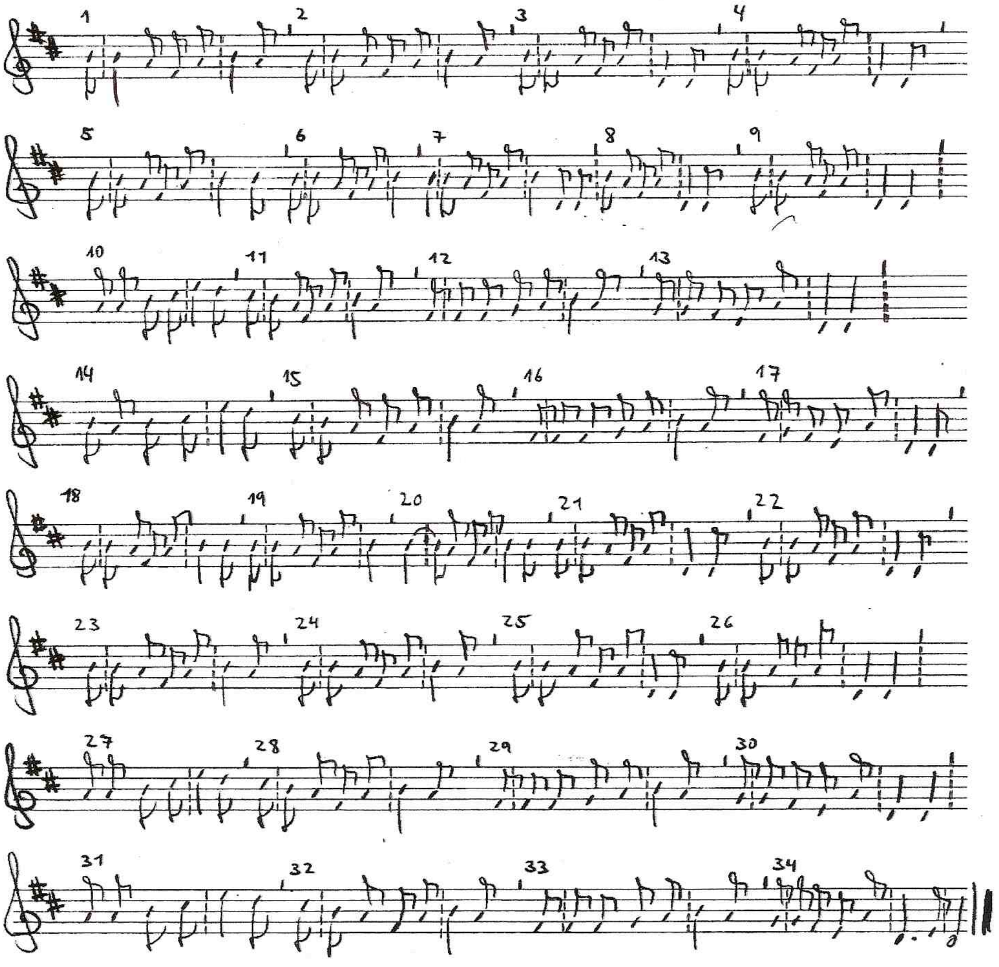

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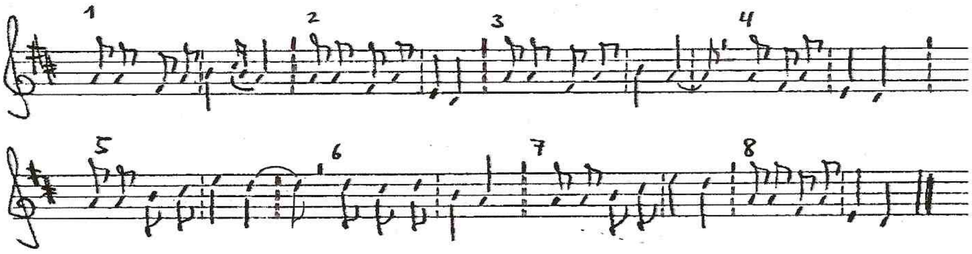

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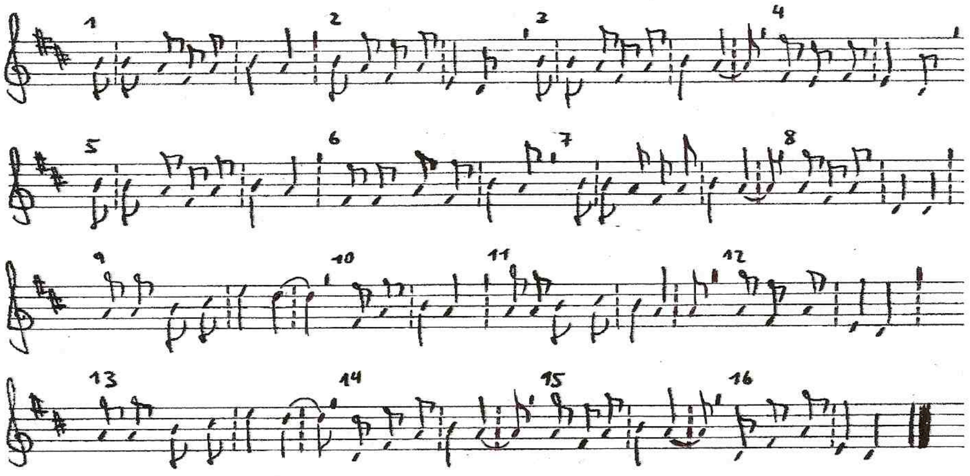
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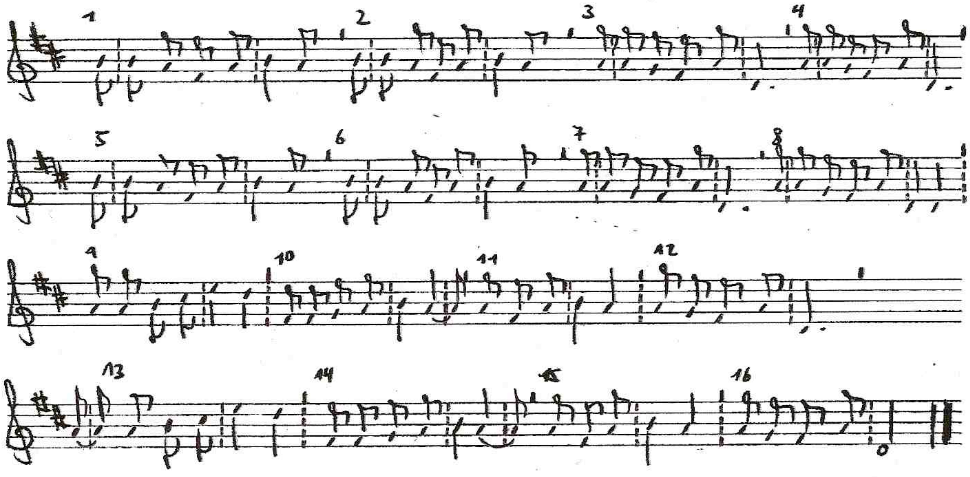
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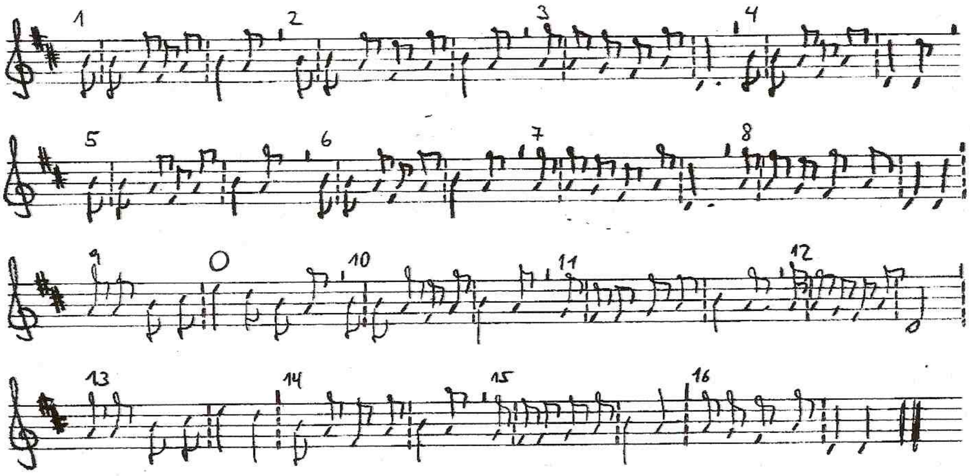
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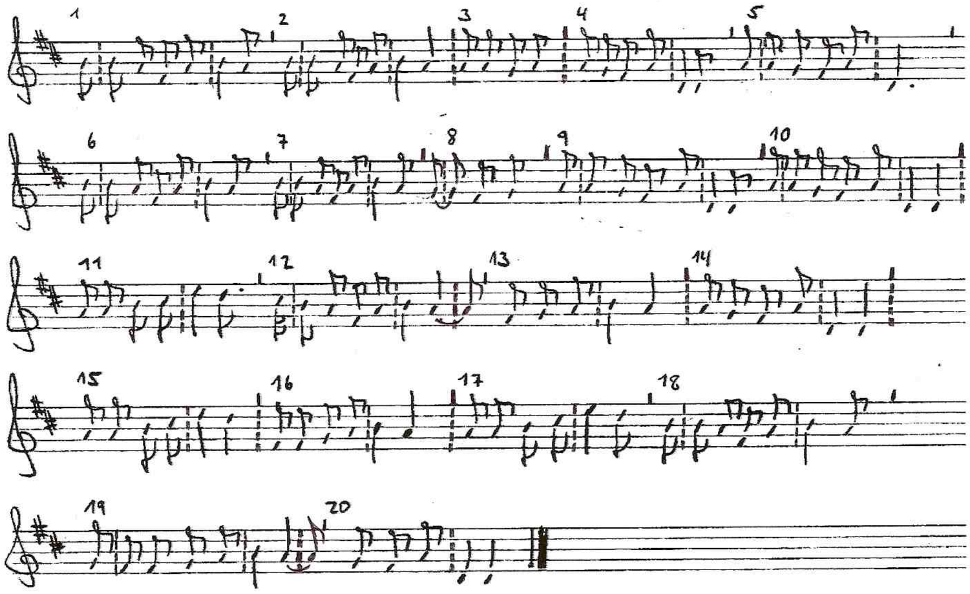

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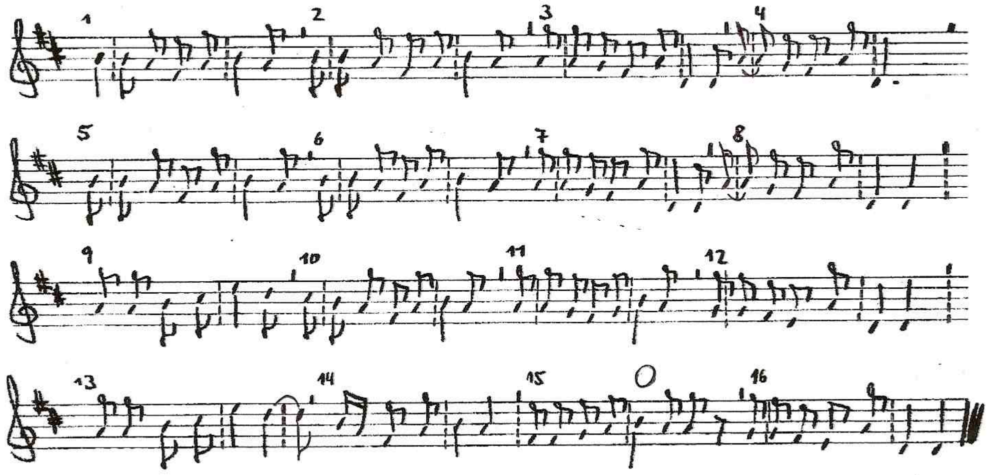
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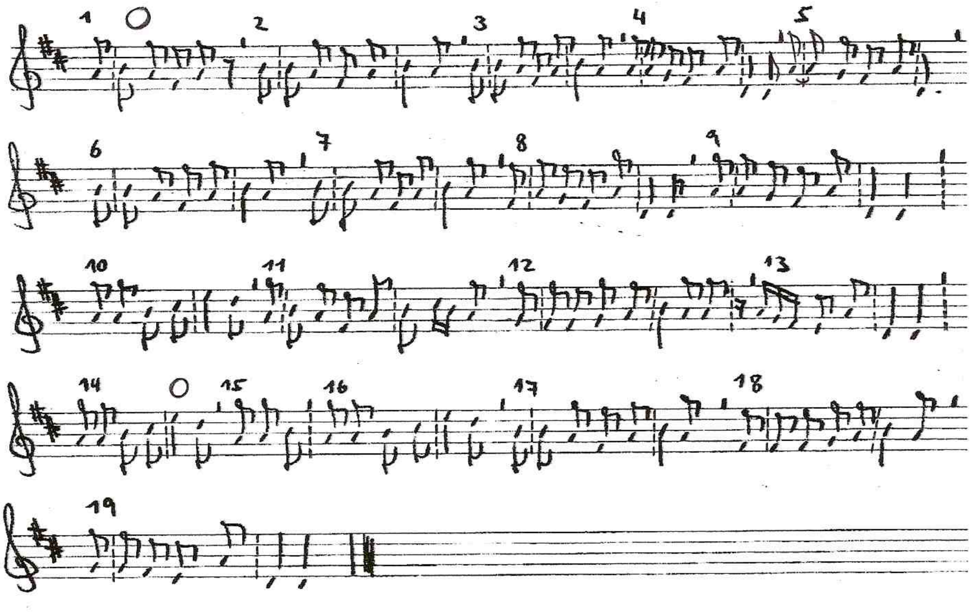
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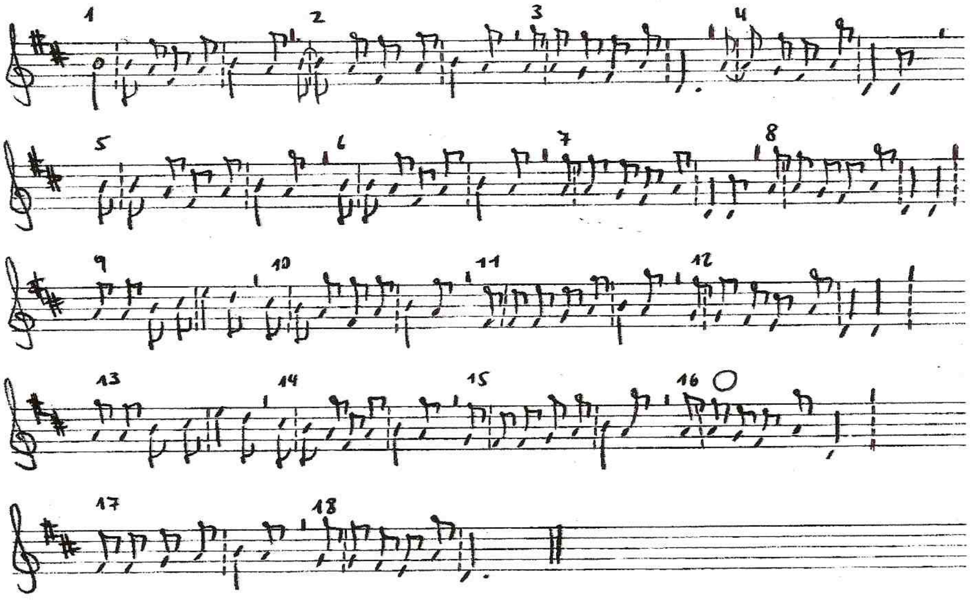
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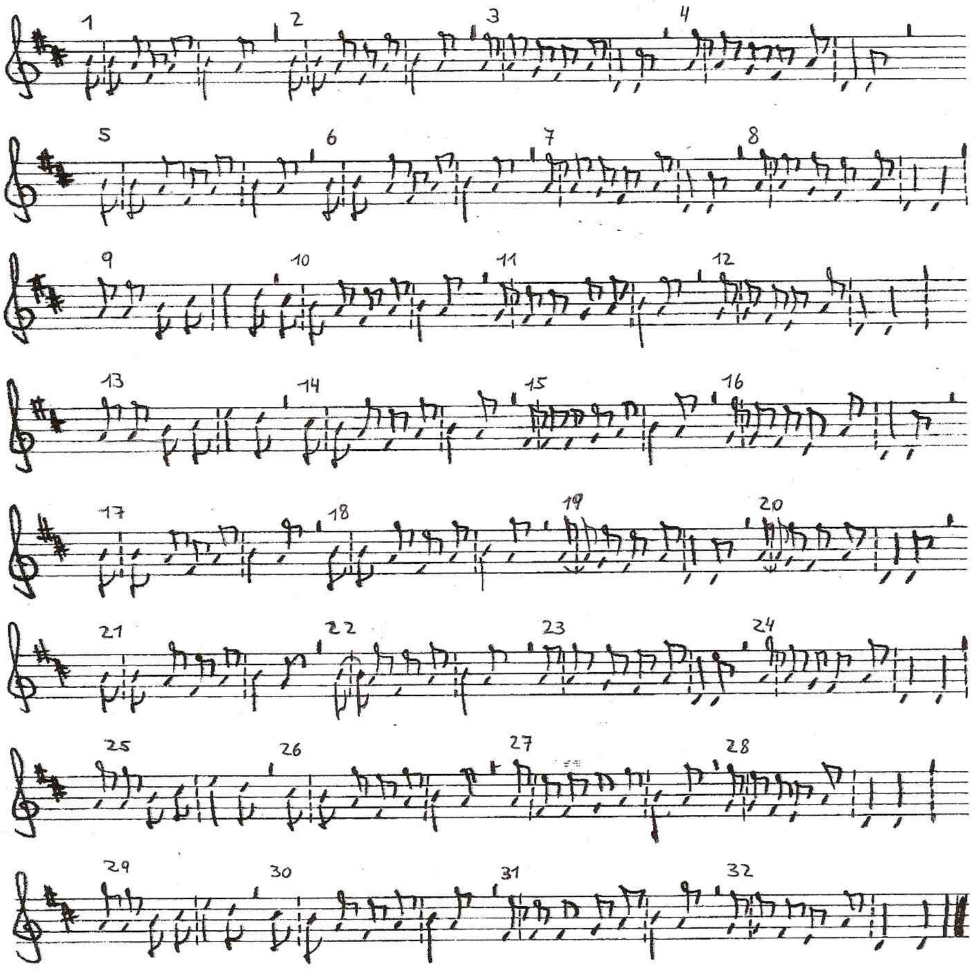
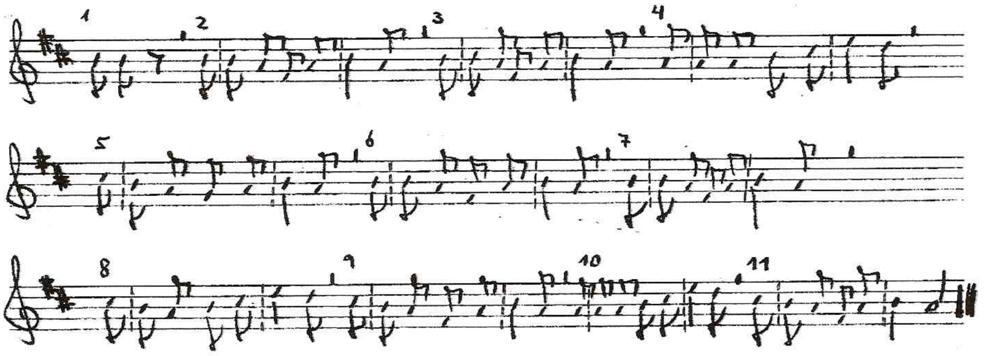
V.2.9



8.3.3 Subject 3

V.3.1


1
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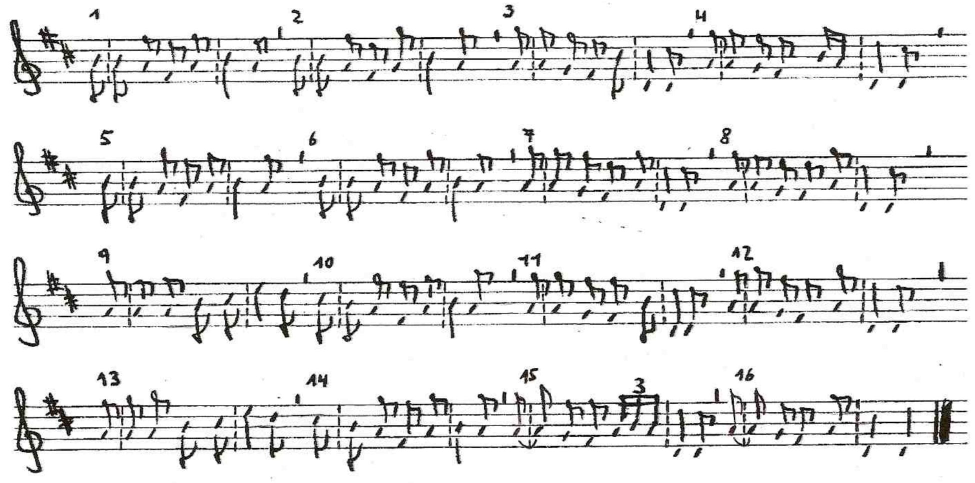
11

V.3.2


1
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11
12
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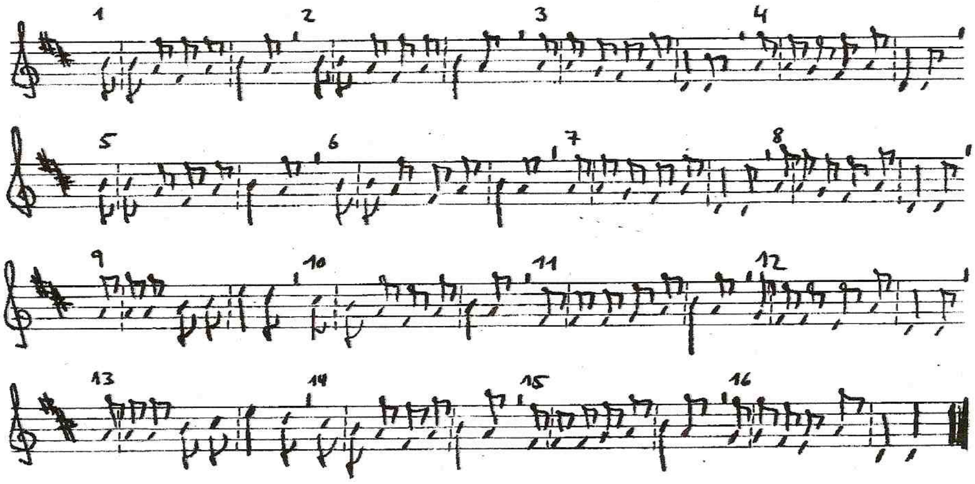
15
3
16

V.3.3


1
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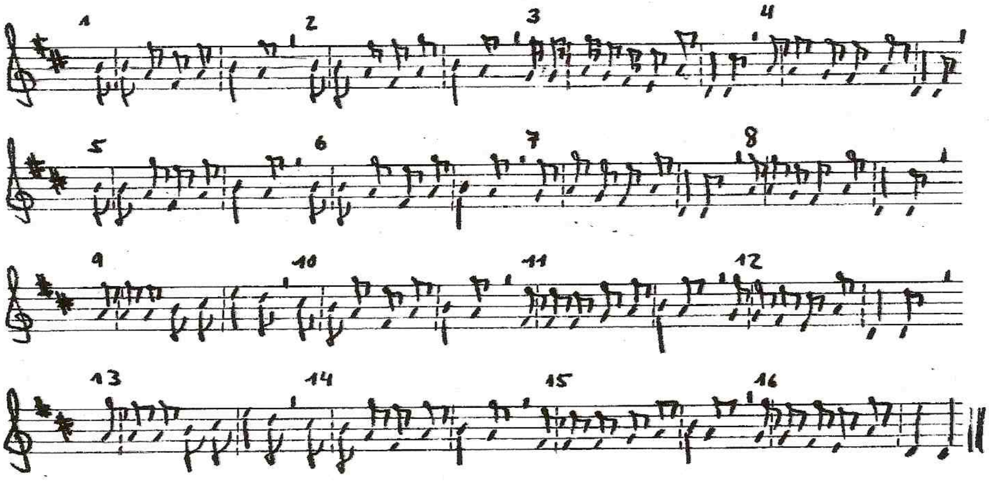
V.3.4


1
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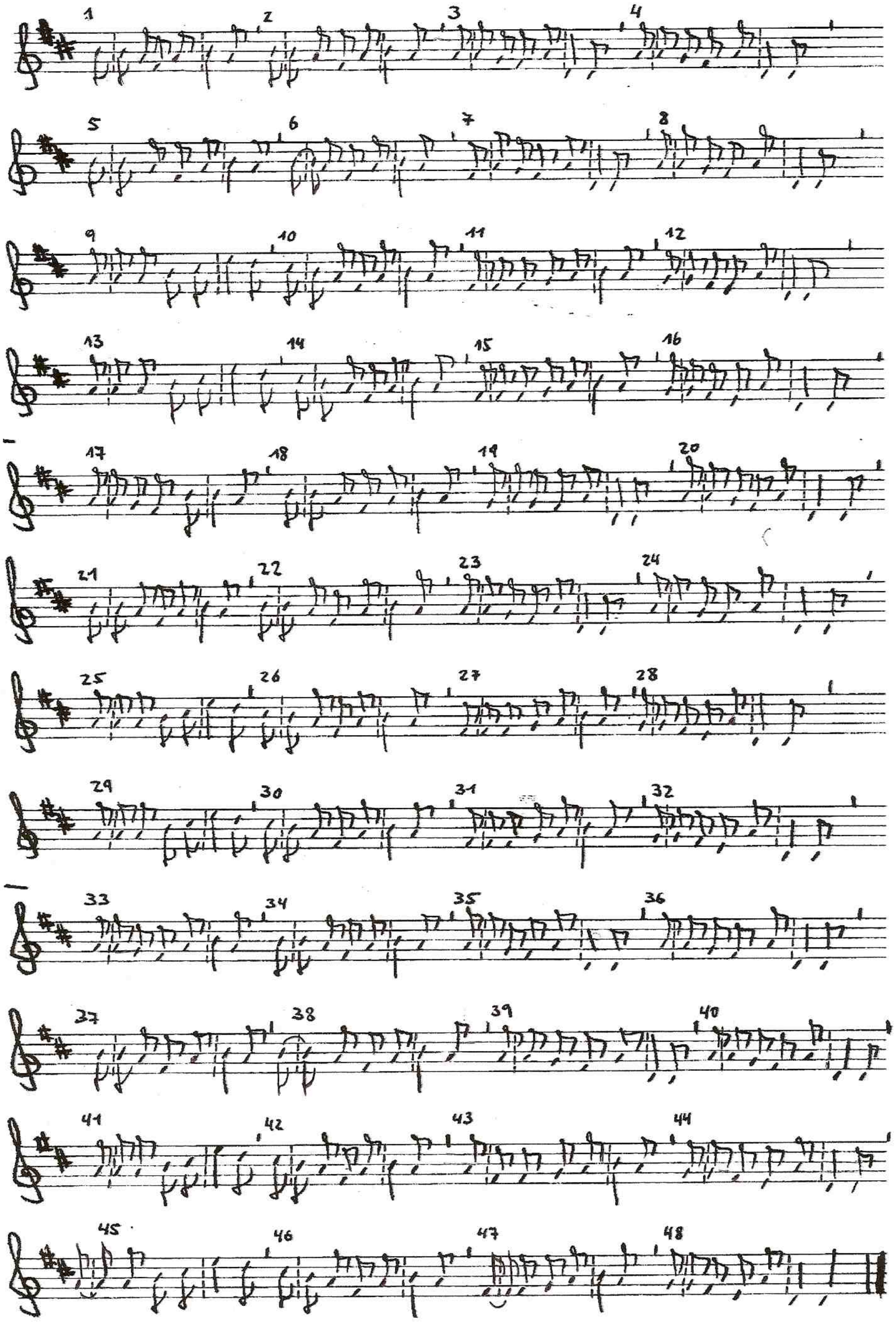
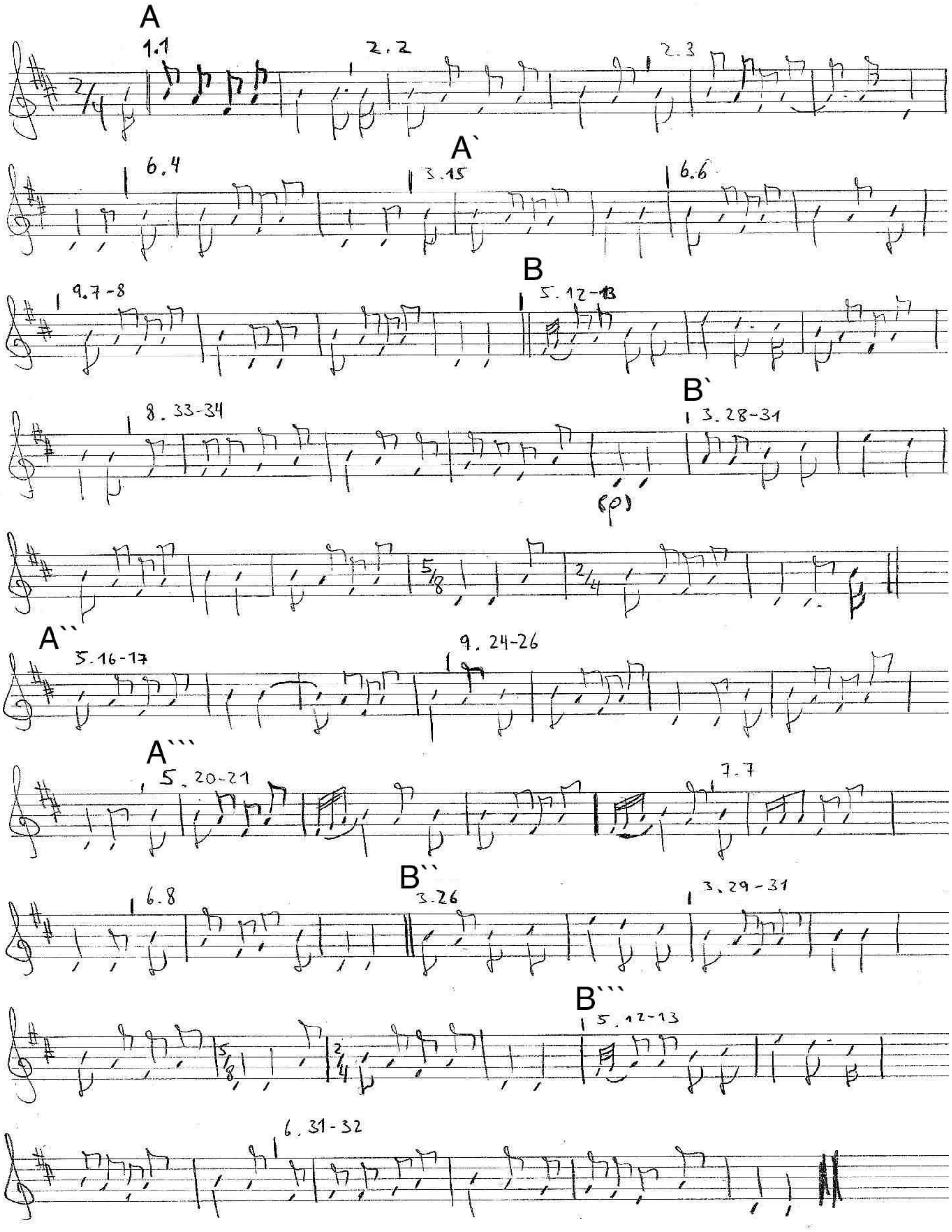
V.3.5



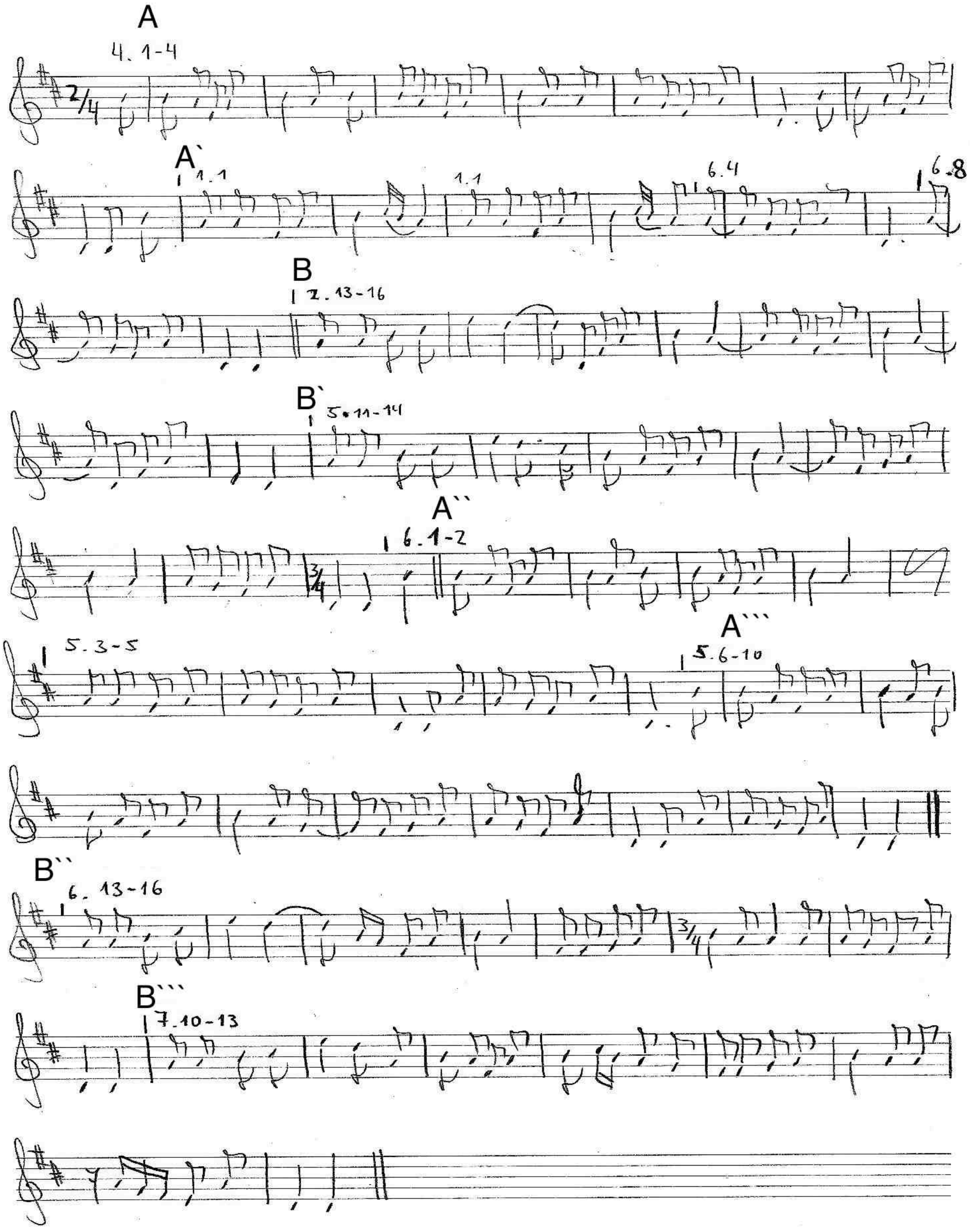
8.4 Subject 1 Version

S.1


A
1.1
2/4
2.2
2.3
6.4
A`
3.15
6.6
9.7-8
B
5.12-13
8.33-34
B`
3.28-31
(p)
5/8
2/4
A``
5.16-17
9.24-26
A```
5.20-21
7.7
6.8
B``
3.26
3.29-31
5/8
2/4
B```
5.12-13
6.31-32

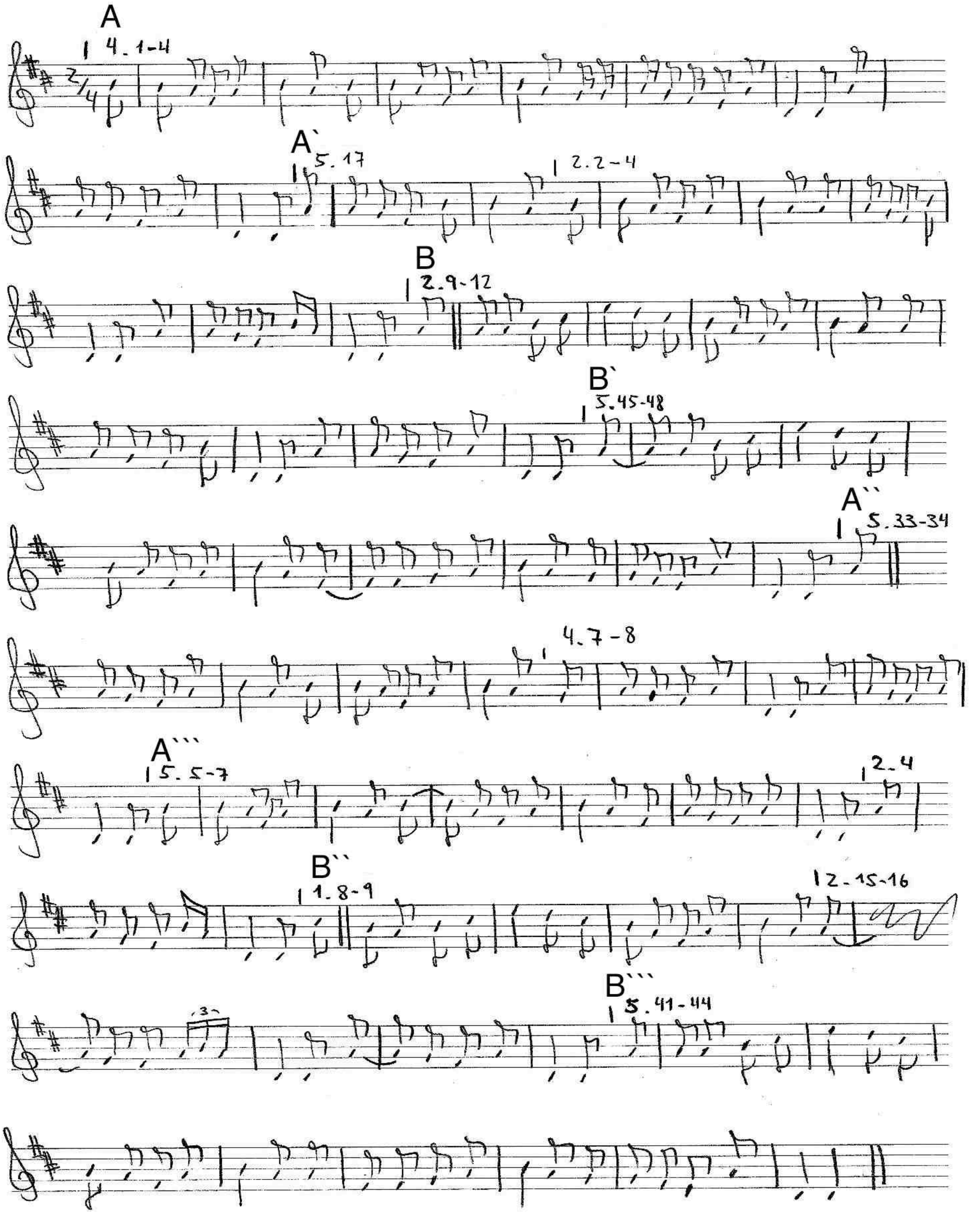
8.5 Subject 2 Version

S.2


A
4. 1-4
2/4
A`
1.1
1.1
6.4
6.8
B
2. 13-16
B`
5. 11-14
A``
6. 1-2
3/4
5. 3-5
A```
5. 6-10
B``
6. 13-16
3/4
B```
7. 10-13

8.6 Subject 3 Version

S.3


A
4. 1-4
2/4
A`
5. 17
2. 2-4
B
2. 9-12
B`
5. 45-48
A``
5. 33-34
4. 7-8
A```
5. 5-7
2-4
B``
1. 8-9
2. 15-16
3
B```
5. 41-44