THE MUSIC METHOD

A NEW THEORETICAL AND NOTATIONAL SYSTEM

By

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INFORMATION

The concept of the DODEKA method was created in 1980 by Jacques-Daniel Rochat. Its revision and the production of the keyboards were achieved in the 1990s, and the method was finalized in 2005.

UTILIZATIONS

This new method's aim is to offer a coherent solution to music learning. The concept was therefore not realized in a search for profit. The concept, the language, the illustrations and the text present in this document can be freely used for personal use or to promote the DODEKA method.
However, any lucrative exploitation or selling of elements from the DODEKA method will require the author's prior consent.

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INTRODUCTION

The DODEKA method is a performing manner to approach musical theory and to write sheet music. Its conception, based on exact notation of the sound gaps, allows it to greatly simplify the current complexity of scoring.

The DODEKA system enables the transcription of all types of musical compositions but with a ratio that simplifies learning more than tenfold.

HISTORY OF MUSICAL NOTATION

The Desire to Fixate

The need to transcribe music onto something physical had dawned at the beginning of music, which seems to go back to around 5000 to 6000 years before Christ.
In the Bible it is thus mentioned in the book of Genesis that music quickly accompanied the development of humanity.

Antique Origins...

With such an ancient origin, it is conceivable that many musical language systems were introduced around the world. But in those ancestral times, means of printing did not exist. The potential notational systems were therefore inevitably limited to regional and temporal use. Unfortunately there are not many traces left of them.

More than 3000 years BC, the Egyptians already had the means to transcribe and record the melodies of their cultic songs. Such transcription systems must also have been used later on by the cantor schools and the Jewish musicians who played the biblical Psalms.

Traces of one of these notational systems were discovered on Sumerian tablets of the ninth century BC. The coding, consisting of five symbols, is obtained with cuneiform characters placed on the left side of a religious poem.

Any musician or composer who is charmed by a melody finds himself confronted with the intense desire to durably capture that music.

In Greek and Roman Times

The systems used in the Middle East have presumably transited to the Greek world and generated the "cata pycnose" system. It seems that this concept consisted in theoretically dividing the scale in twenty-four semitones per octave. If this is the case, the forefathers perhaps had a much more precise and more coherent system than ours...

History tells us that around 600 BC, the Greeks used the letters of the alphabet to transcribe music notes. These letters were topped with a sign that indicated the note's length.

Around 400 BC, Pythagoras' works bring the mathematical aspect of music to light. He (re)discovers that taut strings make harmonious chords when their lengths are defined by multiples of two, three or four.
His works set musical theory in a simple arithmetical framework.

With the Roman conquest, the musical writing system developed by the Greeks was taken over; musical writing then consisted of 1620 symbols!

In about 500 AD, the Greek letters are replaced with Latin letters. Upper case or double letters signal the different octaves.

However, because this system is based on a subjective approach of sound, the scale is truncated and they had to find a way to annotate the forgotten notes. The harmonies of the Gregorian chant thus help to create a "soft B" located a semitone below the B value. It is from this distinctive feature that the "flat" tone, that was to be subsequently used, originated.

In the Middle Ages

Around year 1000, an Italian Benedictine monk named Guido d'Arezzo devoted his life to prayer and to studying and teaching music. In order to help his students, he gave new names to the notes based on a stanza of a hymn to the Gospel of John.

Utqueant laxis	So that can
Resonare fibris	Resonate the cords
Mira gestorum	Distended by our lips
Famuli tuorum	The wonders of your acts,
Solve polluti	Remove the sin
Labii reatum	Of your impure servant
Sancte **I**onaes	Oh Saint John

Poem written by Paul Diacre (730/799) – Hymn to Saint John the Baptist

The two first letters of each sung line gave the note's name.
The scale at the time comprised the following notes: UT (which was to become Do - C), Re (D), Mi (E), Fa (F), Sol (G), La (A).

At that time, the basis that was used to write music is still very subjective and many notes are missing. Thus the Ti (B) will only be officially inserted at the end of the sixteenth century by the French monk Anselme de Flandres!

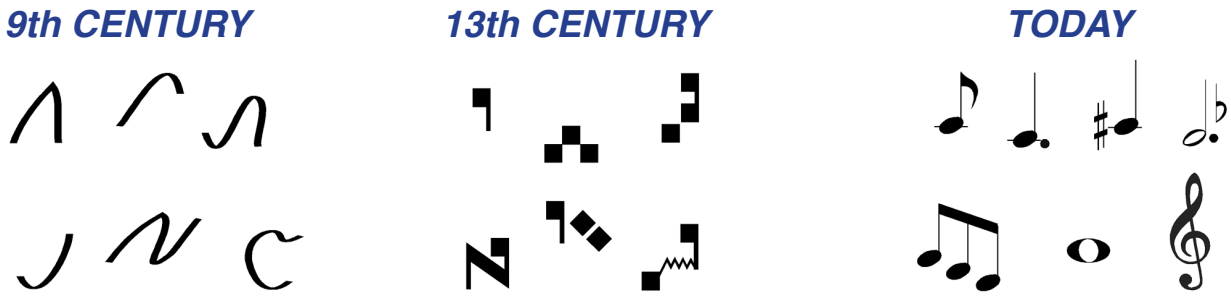
But the alphabetical system has its limits and makes the reading of more elaborate melodies complex. This leaded Italian copyists to insert colored lines, first on the F note, then on the C (UT) and finally on the A. At that time, the number of lines and colors were variable.

The habit was to use the letter G as a reference. This sign, once ornamented was to

become the famous treble clef.

Since the end of the twelfth century, the use of the quill pen simplified the graphics and brought along the characteristic form of square notation: the dots become squares and rhombi, and the notes are linked by lines.

This graphics was generalized in manuscripts and was maintained until the fourteenth century.



The Final Version

With time and the talent of composers, the range of harmonies expanded. This constrained musicians to add on to the established writing system. These works led to the addition of a fifth line to the notation and to the creation of the semi-time dot (as in the dotted quarter note). Only in the fifteenth century was the concept of quarter notes (GB: crotchets) and half notes (GB: minims) generalized.

The invention of printing and its leaden characters normalized the graphics and set the current system.

Because music is the "language of the soul," the way of writing it was greatly inspired by the sentimental hold that musicians and composers had at the time.

THE DEFECTS OF THE TRADITIONAL SYSTEM

A "Tinkered" System

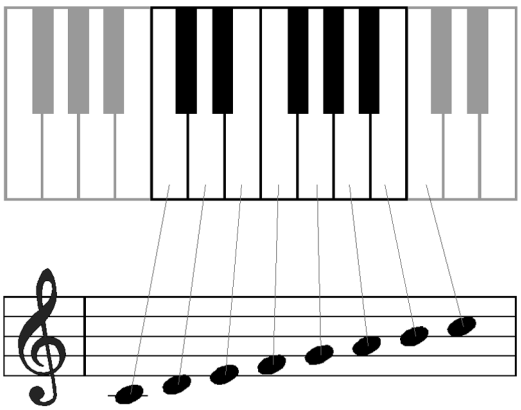
As mentioned in the preceding historical reminder, the construction of music writing was elaborated within centuries and following an empirical process.
In origin, the notational system was formed according to a melodic suite lacking several notes which had to "enlarge" gradually in order to take account of the discoveries and the extension of musical styles.

Because this progression was not foreseen, it brought about a plethora of additions and helped constitute a complex system. It is kind of like if we had built a cathedral based on blueprints drawn for a small house.
Musical notation was thus never liberated from its great defect which is to want to write a morceau from a melody with a well-defined harmony.

This uncomfortable situation can be linked to the condition of people who would talk to each other always using the same sentence.
To express themselves, the interlocutors would continually have to use expressions and additions meant to correct and deform the initial text.
This is exactly what happens with the current notational system: its basis is forged on a specific musical form from which it is very difficult to escape.

Contaminated Keyboards...

In order to convince oneself, it suffices to conduct a few experiments on a piano. This instrument's keyboard is a material reflection of the traditional musical notation:
The white keys correspond to the notes present in the score.
The black keys correspond to absent notes but that are signalled by pitch modifications on the main notes (flat, a semitone lower – sharp, a semitone higher).



The problem with the current system is that we write every composition based on... a musical morceau !

A novice who successively touches the keys will effortlessly perform the C major chord. With a little more work, s/he will also be able to easily play a musical morceau in that key, for the piano and its corresponding notational system privileges this key.

Of course, this is fine for a first contact and for those who quietly stick to the C major (or minor) harmonies.

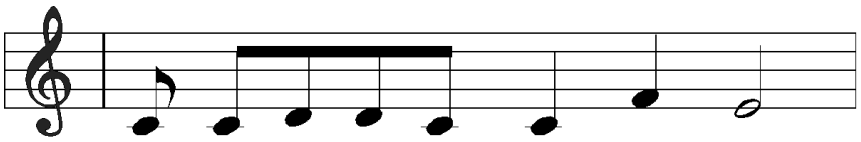
But what is the price to pay?

For as soon as the musician wishes to free himself from these established chains, s/he is terribly penalized and the "prefabricated" melody that was brought to him/her by the system is transformed in a mountain of aberrant complexity.

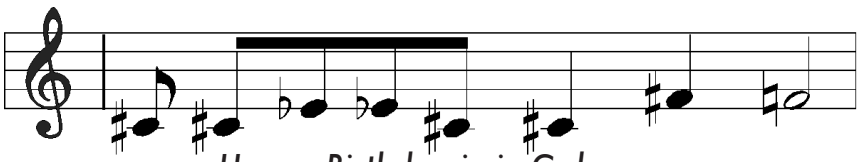
An Example of Complication

As the illustrations below demonstrate, the transposition of a semitone of a song as easy as "Happy Birthday" will turn out to be quite painful for the novice.

With the change of tone, the notes will be are partly on the black keys (forgotten note) and keys white.



Happy Birthday in C



Happy Birthday in in C sharp

The example of the two versions of this very simple song, only a semitone different, is eloquent. And yet it is the same melody.

Indeed, parting from the established basic key, the keyboard and notational system must use many corrections. These then create as many variants as there are keys.
To avoid adding to each note flats or sharps, they are assigned to the beginning of the line (at the clef). The musician then has to keep these corrections in mind as he reads. The F sharp scale comprises six sharps that have to be taken into account for each related note!

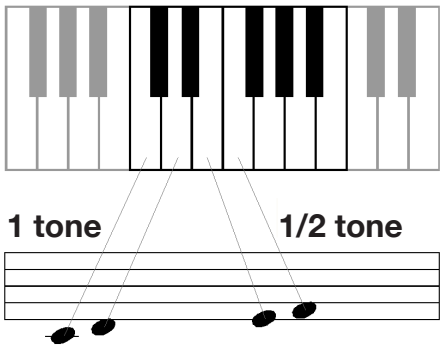
This absurd state therefore leads to having an unbelievable amount of possible writings and eleven different fingerings for the exact same musical morceau!!!
What a system, what a terrible language!

And the nightmare is only beginning, for these totally artificial hindrances also contaminate the universe of musical harmonies.
Thus in every scale each chord has eleven variants, while in reality these scales and chord always correspond to an identical musical structure.

A Misleading System...

This method and its rampant complexity contains yet another sly effect: it lies!
For it is not without consequence that the founders of notation have favored a pleasant and subjective melody. Without knowing it at the time, they have tied a melodic form that betrays the mathematical standards of music.

In a score C and D are spaced the same as E and F. On paper these notes are thus presented with a similar space and this is also reported on the piano keyboard where these notes can be produced with white keys and with equivalent spaces.



But nothing could be more incorrect because the space between a C and a D is of one tone, whereas between a E and a F it is only a semitone.

This involuntary "lie" has terrible consequences for the notational system because it creates a distortion between real music and written music. What is written does not correspond to what is played; a bit like if when we saw a cat, we should visualize a horse.

The gap between theoretical music and sound reality is one of the causes of the enormous difference between composers who play and improvise "by ear" and those, more "literary", who perform scores more slavishly.
The notational system has involuntarily created two castes that do not necessarily have the same regard to music.

The Lack of Hindsight

Unfortunately few are aware of these aberrations and when we present the DODEKA method, we see that musicians who are the most bound to music theory are those who have the most difficulty to perceive the "mass of useless complexities" that are hiding behind the system of musical transcription.

Their understanding of music was constructed through the "eyes" of the system and it is not easy to show them that the path could have been so much shorter.
Thus the current musical theory is like a fortress with unnecessarily high fortifications. Most novices get out of breath while trying to climb its walls and give up. Those who are single-minded enough to pass it obtain a certain aura and the admiration of others.

But how many quality musicians lost?

Note: The "temperate" tuning of the piano is a compromise that allows it to play in every key; however other instruments enable to play with more nuances. Thus a virtuoso violinist will play the flats or sharps differently. These subtleties specific to the key in which the composition is played can be indicated in the DODEKA method.

THE BASICS OF A GOOD APPROACH

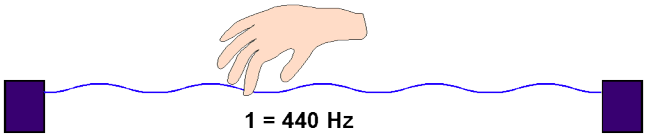
Now that we have underlined the useless complexity of the current notational system, we can define the necessary criteria to a coherent concept of transcription. These are not difficult to find and it suffices to dismantle a piano to be facing a clear and logical vision of music.

The Rule of Sound

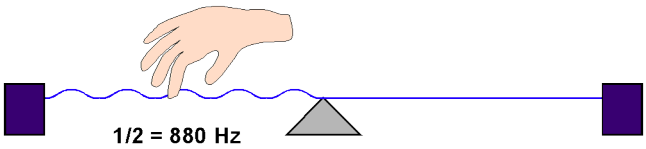
For, beyond its emotional expressions, music remains a set of sounds governed by frequencies and mathematical rules.

These laws are easy to discover with instruments that make a sound vary depending on the length of one or more taut strings.

When a string is stretched between two points, it will vibrate according to a certain frequency and make a sound. For example, we can make the A sound if the string vibrates at 440 beats per second.



If we cut this string in half and make the remaining part vibrate, we will get a sound with a frequency twice as fast, being 880 beats per second.



The sound will be higher and will give the impression that it is the same note but with a higher sound. It is then a A, but one octave above.

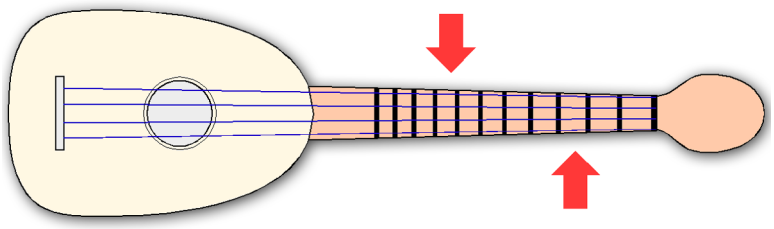
If we were to divide this part of the string in the middle again, we would climb another octave and pass to the upper A.

Pleasing Fractions

We can also play around and divide our string following simple mathematical ratios like three-quarters or two-thirds. Surprisingly, this results is something our brain appreciates and can be found in musical harmonies. A string cut in a 1.333 ratio makes a fourth and the string cut in a 1.5 ratio makes an accurate fifth. In reality, in a piano that is made to play in numerous keys, we “temper” the tuning of the fifth giving it a ratio of 1.49830 (see the note above).

All of these values are "appreciated" by our brain who, in a certain way, gives us a taste of the subtle mathematical combinations that the frequency vibrations transmit.

The link between the musical sound and the fractioning of the strings is particularly evident on guitars because the neck of this instrument is conceived with sectors that correspond to the succession of semitones on the chromatic scale.



The frets that run across the neck enable to "cut" the strings at defined lengths. On other string instruments, like the violin, the neck is smooth and it is the position of the fingers that defines the place where the string is "cut".

The Basis of a Good Language

In order to find a language likely to easily transcribe the diverse musical compositions, it is essential to go back to the initial "alphabet" that is used to construct musical words and sentences in every sound key.

This approach must go with a rejection of any subjective favoritism that leads to giving value to notes or keys.
To put each note back in its rightful place, it suffices to consider the "spaces" between two octaves (on a guitar neck) or the architecture that we can see in an open piano.

Upon playing every note successively, we divide an octave in twelve parts (thus a ratio of 21/12 = 1.059463094).

This total scale, which does not give into any favoritism, is called the chromatic scale.

It is at the root of the system of musical notation of the "DODEKA*" method and enables to liberate ourselves from the useless complications.

* In Greek, the noun "dodeka" means 12..

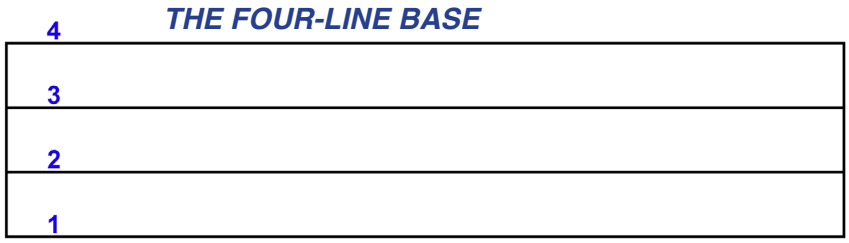
THE "DODEKA" CONCEPT

The aim of the creation of a musical writing is to present the notes' position with a maximum of clarity.

One of the principal challenges with a new method is to find a graphical concept that allows the precise presentation of the twelve semitones of the chromatic scale.

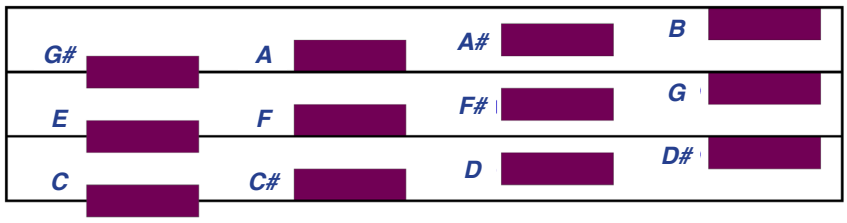
The Structure of the Lines

After diverse research, the most effective system proved to be the displaying of the notes on a staff with only four lines.

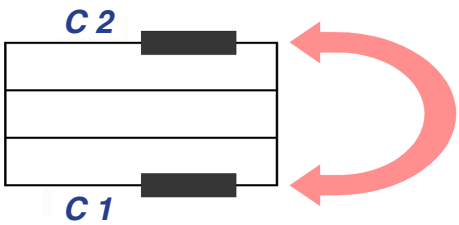


To compensate for the limited number of lines, the notes are positioned in four variants:

- On the line : C (Do) - E (Mi) - G# (Bi)
- Above the line C# (Ka) - F (Fa) - A (La)
- Between two lines D (Re) - F# (Hu) - A# (Ve)
- Under the line : D# (Xo) - G (So) - B (Si)



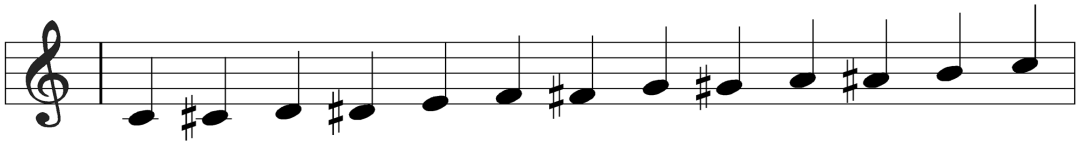
With this layout the reading of each note's position is very easy and advantageously allows to place an entire octave in the four-line scale.
This arrangement brings a weighty advantage compared to the traditional system that writes the notes on a five-line scale. With this odd number the notes do not maintain their positions because the C notes are alternately on a line or between two lines.
This continuous position inversion greatly hinders the reading clarity.
With the DODEKA notation, each note keeps its position, which is the case in every octave.



Comparison between the Two Notational Systems

Traditional Method

This method that comes from the ancient musical cultures artificially gives value to certain notes by valuing a key and a harmony. At first only the notes C, D, E, F, G, A, C were present. Afterwards the B was added and symbols that allow to find the "forgotten" notes were created (sharps and flats).



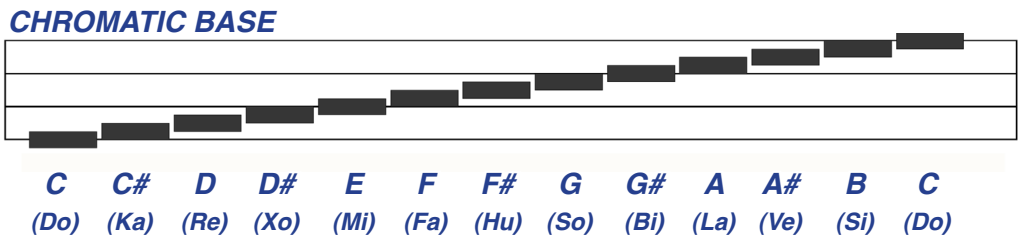
This system caused aberrations: an E sharp (mi#) is an F (Fa), an F flat (Fa*b*) is an E (Mi), a B sharp (Si#) is a C (Do), and C flat (Do*b*) is a B (Si) !!!
Moreover each "forgotten" note can be referred to in two ways. A C sharp can also be indicated by a D flat. In consequence, the twelve tones of the chromatic scale generate more than 24 different signs! (32 forms if we add the "cancel" symbol that nullifies the sharps and flats). By combining the different signs we can create thousands of graphical versions of the chromatic scale (and of any other musical morceau!). The illustration above is then a version among others of the base scale used to make music.

DODEKA Method

This new system of musical writing considers every note equally without favoring a melody or a key. For this, it gives a specific name to the forgotten notes. The semitone progression is clear. There are no more sharps or flats and only one way to write each note.

The DODEKA scale keeps the names of the existing notes and gives a new name to those who have none. The scale presents itself in the following name sequence:

DO – KA – RE – XO – MI – FA – HU – SO (I) – BI – LA – VE – SI – DO *



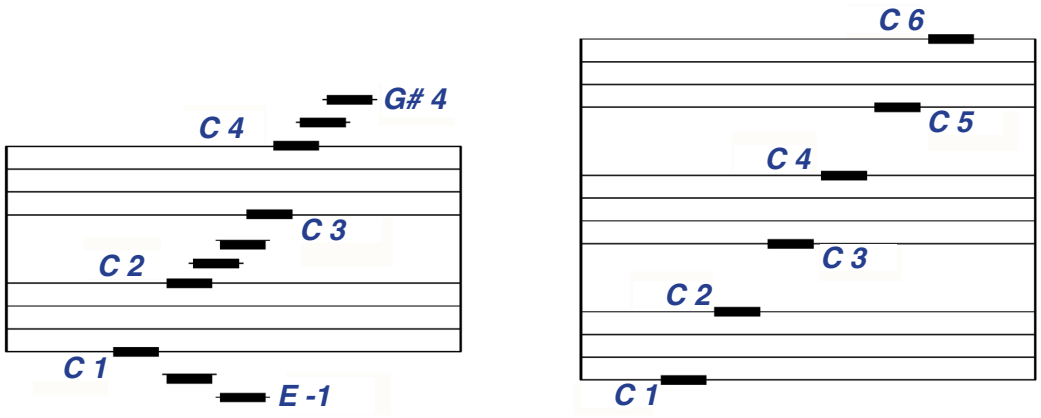
*Note: These names are based on the latinate note names as this method was first conceived in that environment. However, to be exported to Anglo-Saxon countries, it will be taken into consideration that these names be changed. They would be modeled on the Anglo-Saxon notes, consisting of only one letter of the alphabet.

The note-naming process was conceived with the following criteria:

- Only to use two letters per note: Sol becomes So.
- To find names with a specific vocable to maintain clarity.
- To favor the same vowels as their positions in the scale.
- To use consonants that are not present is the existing notes.

A Large Musical Palette

To cover a substantial tonal range, it is possible to extend the four-line modules. They can be added at will and a great clarity is still maintained.

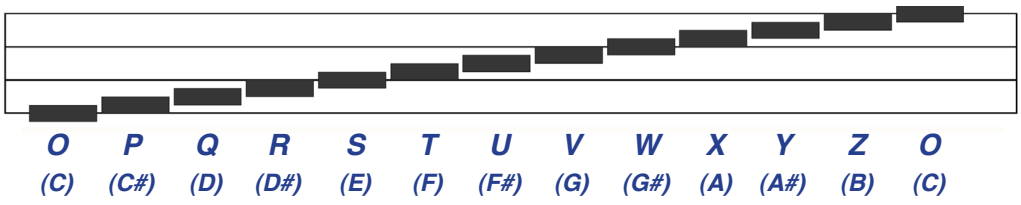


Examples of staffs on modules of four and six octaves. The notation also allows to add fragments of additional lines to temporarily enlarge the musical space.

With this graphical system, a C is always on its line and thus quickly identifiable. The line adding allows the infinite extension of the sound space, it is then not necessary to have scales with a special layout for the lower keys anymore (like for example the F scale).

Each note has its place and the musical layout of the DODEKA scores allows to easily cover the whole range of instruments of a symphony orchestra.
Such coherence greatly simplifies the learning of music.

THE NEW DODEKA ALPHABET CODE



The Anglo-Saxon score use a letter for the notes, but unfortunately not for each note... To atribute one letter for each chromatic tone, DODEKA propose to use the letters starting from the end of the alphabet : «O» to «Z».

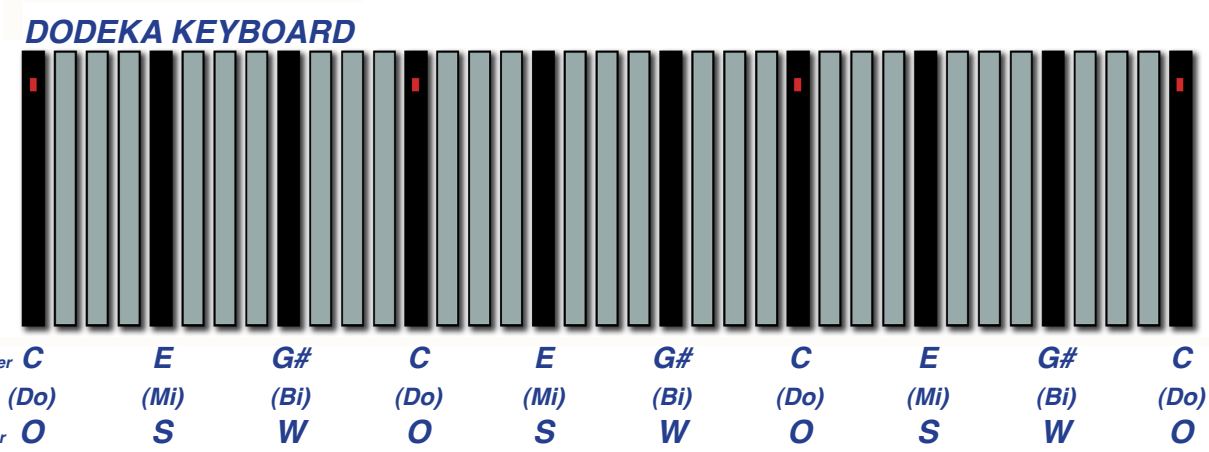
REVOLUTIONARY KEYBOARDS

As mentioned before, instruments with a keyboard such as the organ, the piano, etc., have a structure that replicates the traditional notational method.

The DODEKA method enables to profitably play every existing instrument and on piano keyboards. However, the design of the standard keyboard greatly handicaps the musicians because it reproduces the "defects" of the system (this is not the case for string instruments, brass instruments, accordions, etc.).

Only a keyboard that replicates the real form of music allows to fully benefit from a coherent system that encourages musical expression and learning.

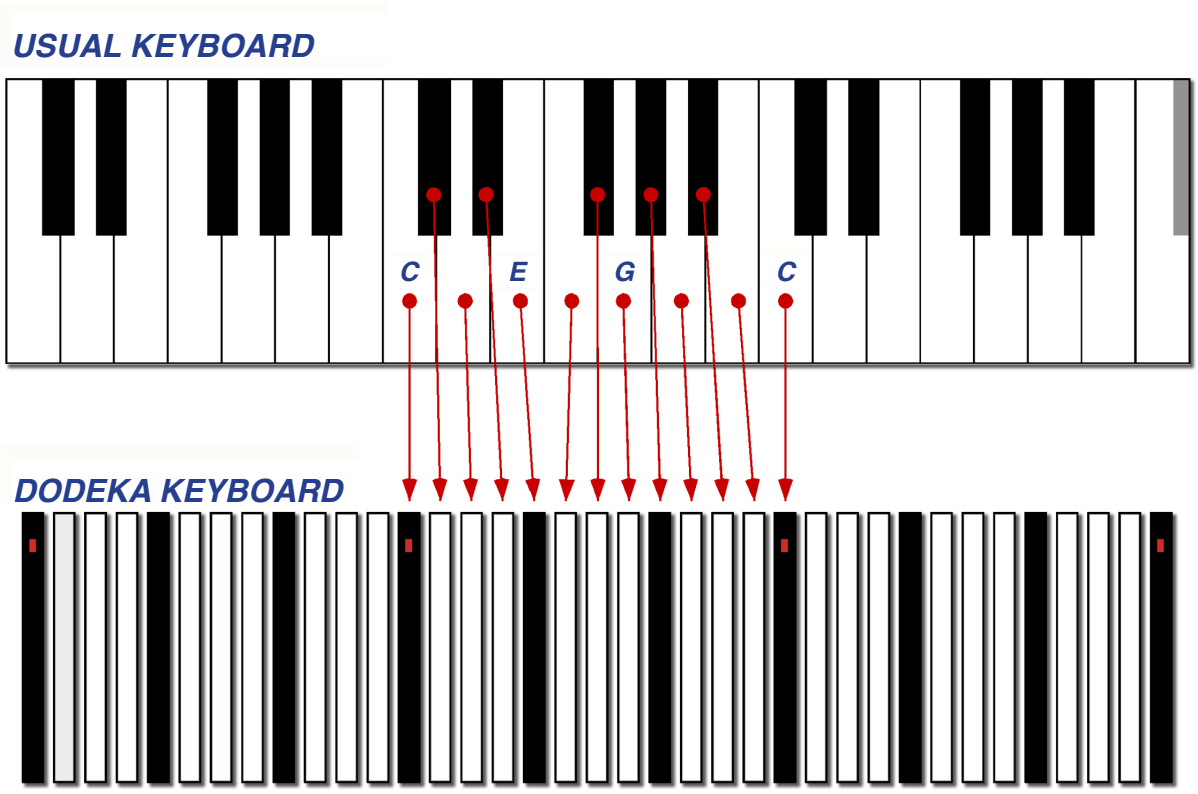
The objective of creating the DODEKA keyboard was to set all the keys in a chromatic configuration. Thus, every note is at the same level and in succession.



The arrangement of the keys of the DODEKA keyboard corresponds exactly to the position of the strings and the mechanisms that are in the piano.

The Advantages of the DODEKA Keyboard

In a chromatic disposition, each note of the scale is side by side, there is no more established and penalizing construction. Each interval is equivalent which allows the musician to very easily control the "musical space" because the keyboard perfectly replicates what is happening in the sound universe. The semitones are always beside the next, the tones are a key away, the thirds and the fifths have the same intervals in every tonality

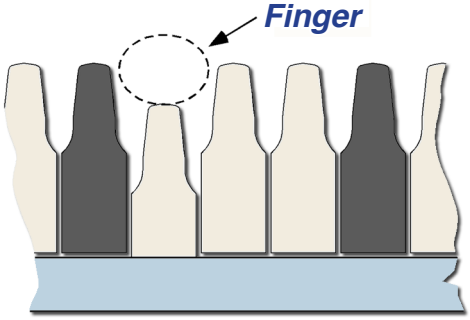


This configuration is an incalculable benefit for those who improvise and avoids the long-out calculations that the traditional keyboard imposes.

The DODEKA Disposition Abides with the Current Intervals

On a piano keyboard, the black keys are further back. Changing to a twelve key configuration where each key is on the same level reduced the space for each of them. But this problem was easily solved by lightly sharpening the keys. This way the fingers benefit from the available room. The DODEKA keyboard is thus similar to a standard keyboard in the disposition and the intervals of keys.

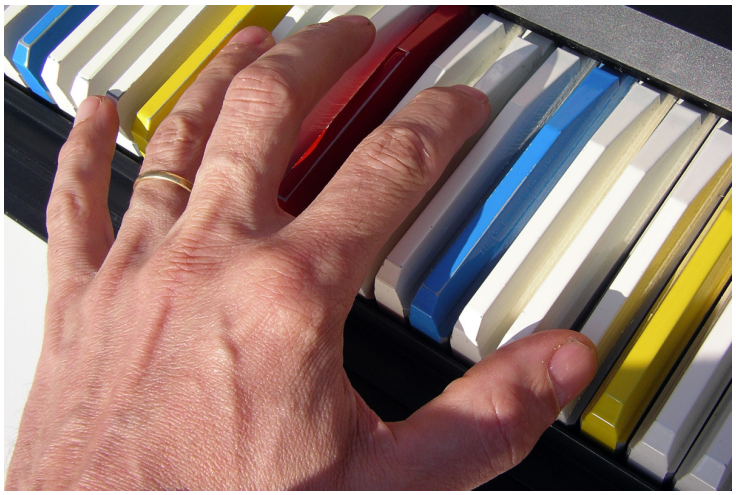
The DODEKA disposition matches a traditional keyboard; every key has the same shape as the black ones and are all one next to the other.



Various prototypes of DODEKA keyboards were made by transforming pianos or synthesizers.

A synthesizer with one of the first versions of the DODEKA study keyboard.

Example of the positioning of fingers on the keyboard.

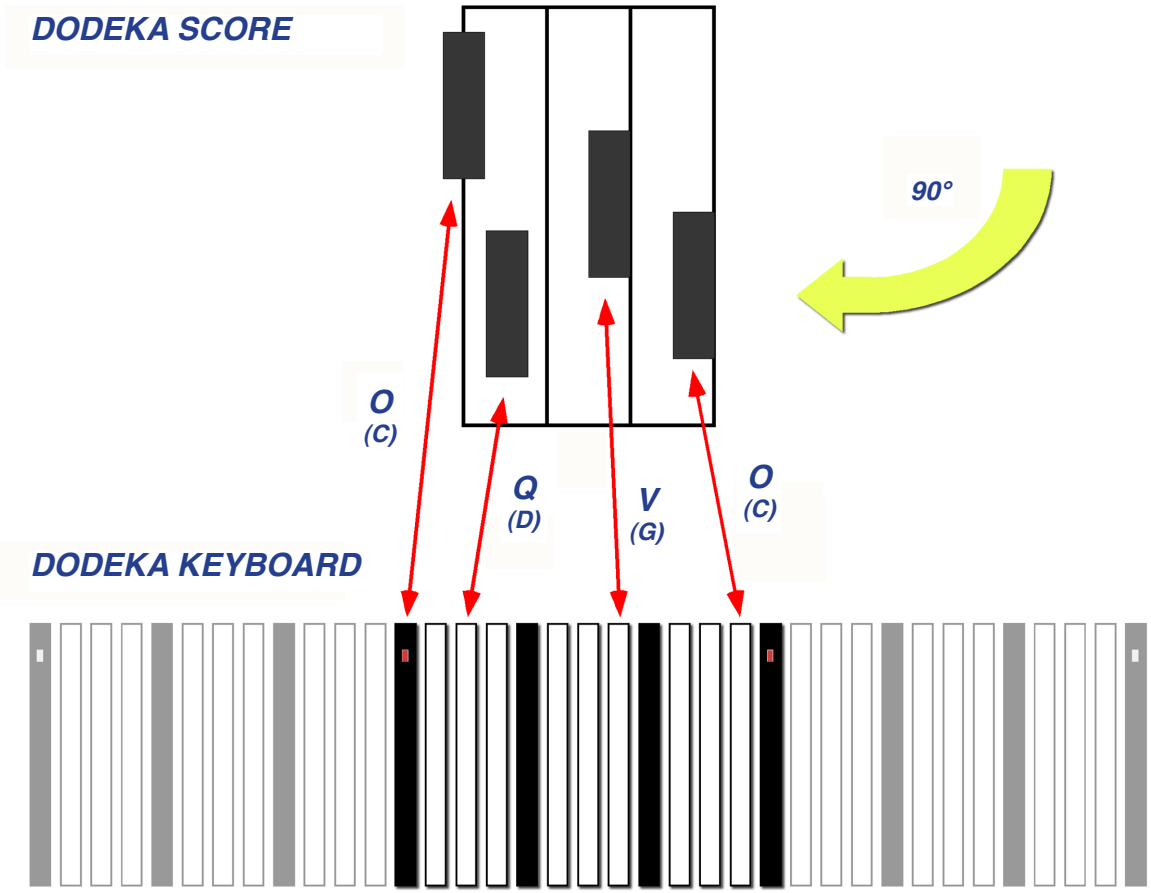


The disposition of these new keyboards has allowed to underline the advantages and the coherence of the DODEKA system.

AN EASY READING

The interaction between the DODEKA method and keyboards comes from their structure based on the chromatic scale. Because each note precedes the next, we only need a few marks to indicate the position the score lines on the keyboard.

With these marks the keyboard mirrors the notational system of the score (if it is rotated by 90°).



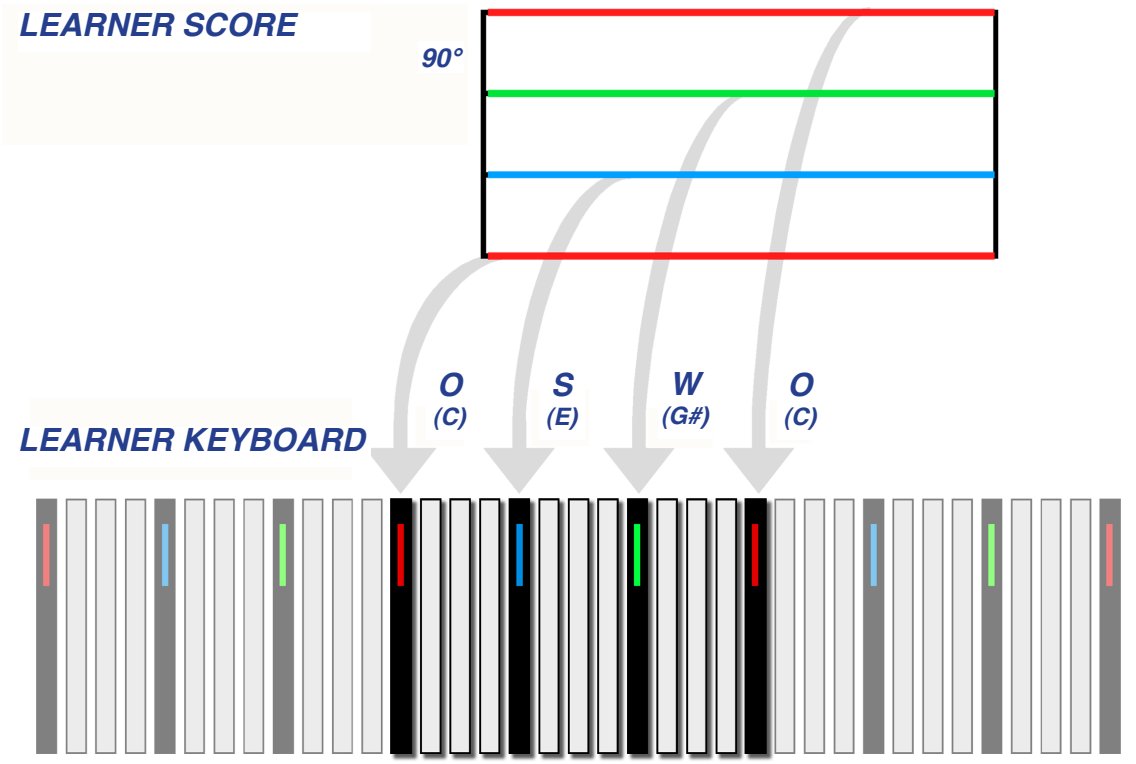
These explicit links between the position of the keys and the position of the notes greatly advantage the learning of reading (and writing). For in practice, one only needs to touch the key indicated on the score in order to play the right note.

No calculation is necessary and there is no alteration at the clef, nor are there sharps and flats.

The simplicity and the coherence of the annotation theory enable novice musicians to read and play complex melodies.

On learner keyboards we can strengthen the visual link between the keyboard and the scores by using a specific color for each line. This way, the keys are the same color as the line to which they correspond.

Thus for example, the following learning colors:
1- Red: the C lines (Do).
2 - Blue: the E line (Mi).
3- 3- Yellow or green: the G sharp line (Bi).



Thus, the tinted key is the one that the musician should push when the note is on the line; both keys beside it are those above and beneath the line. Finally the isolated key in the middle is the note between the lines.

This link between the lines and the keyboard allows to situate each note with great ease.

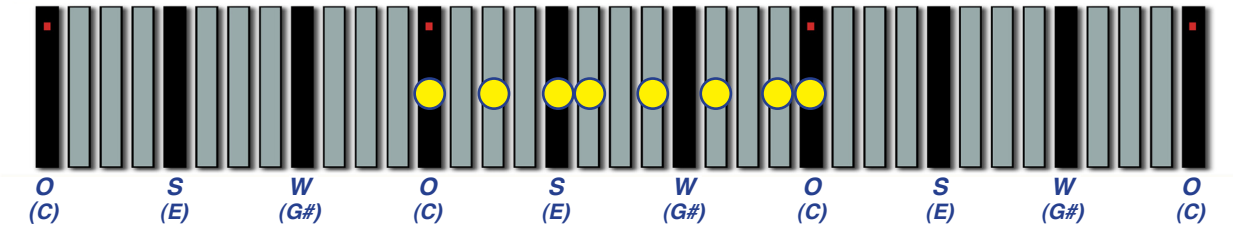
This system is so evident that one lesson is enough to show the entire notational principle. Thereafter the study time can be entirely devoted to the teaching of music and acquiring dexterity and reading reflexes.

SCALES AND HARMONIES

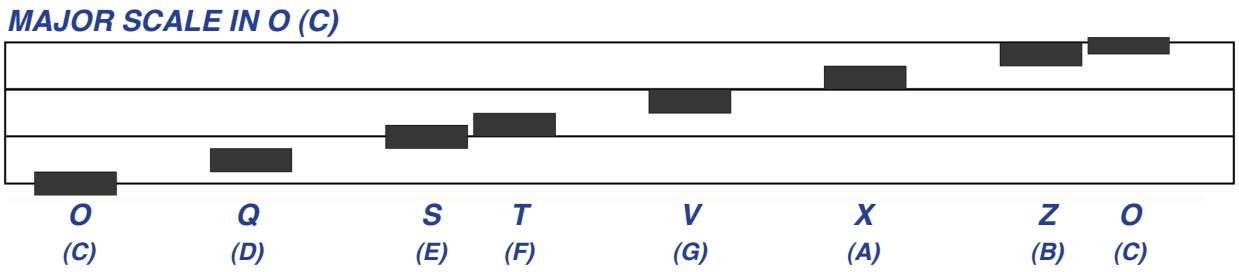
As we have mentioned before, the traditional method favors a scale at the expense of others. With the DODEKA method, there are no favored scales; and on a modified keyboard, the notes are in a row. The musician then has to learn to construct a scale starting from the chromatic scale.

The Major Scale

If he wishes to play in major, he will have to select the notes corresponding to this harmony. This consists in producing the following intervals :



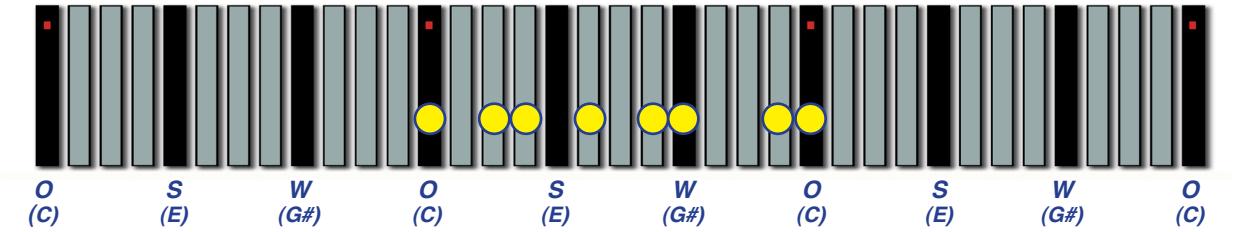
This structure, applied to the O key (C), corresponds to the following writing:



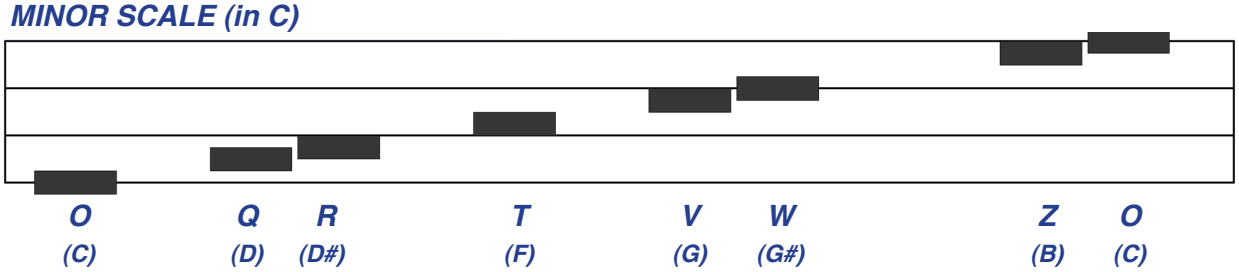
The empty spaces correspond to the avoided notes

The Minor Scale

If the musician wishes to play with minor harmonies, he will have to reproduce the following intervals:



This structure, applied to the O key (C), corresponds to the following writing:



Keys and Transposition

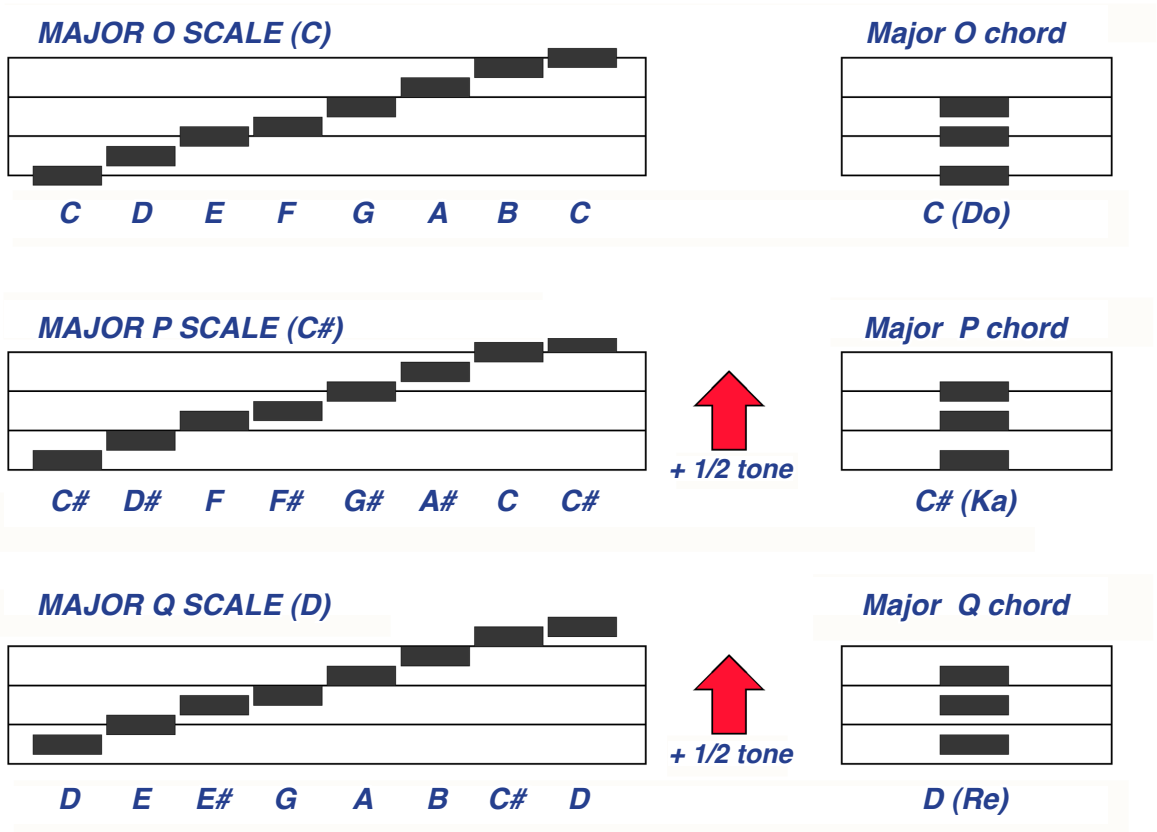
One of the most impressive advantages of the DODEKA method is to get free of the key constraint.
In the traditional system, any tonality change was extremely burdensome because there are eleven ways to play the same musical morceau. Each key change involves calculations and a rewriting of the score.

As we have seen, this also applies to scales: thus also eleven variants of major scales exist, eleven variants of minor, etc. Pianists constantly have to rework numerous variants of playing and this is only to master the basic scales.

This aberrant situation totally disappears with a chromatic base because a scale or a musical morceau is always the same and this is the case of the complete range of keys.

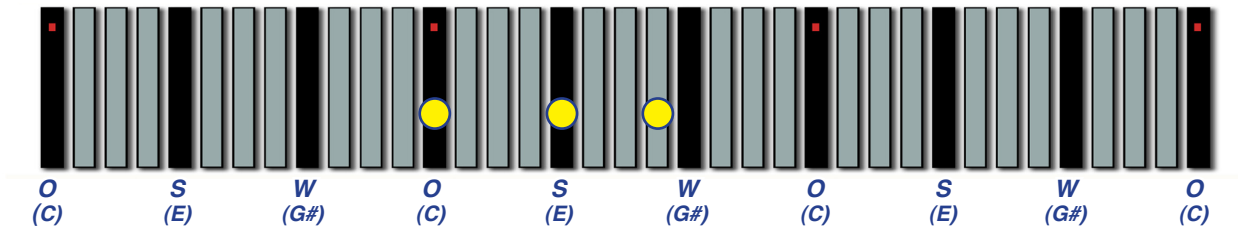
Thus one only has to learn one single major scale to be able to play it in every key. The sequence of fingering is always the same.
For example, a morceau written in C major can be played in E by simply moving a line away.

As every space between the notes is the same, the construction of the musical playing does not change.



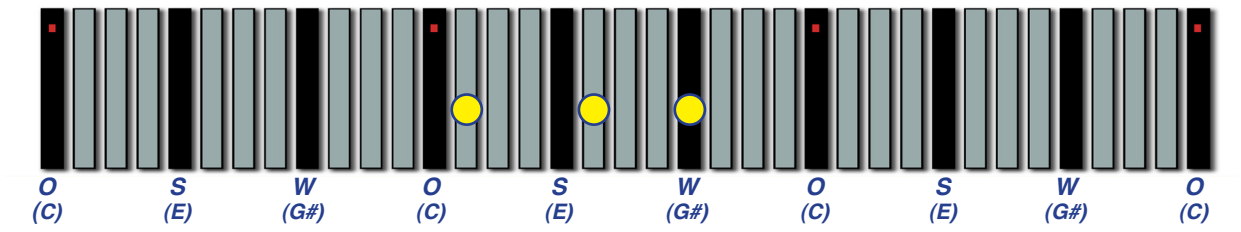
As the illustration shows, this ease of transposition also applies to note chords.

The three-note chord of the O (C) major type corresponds to the following intervals:

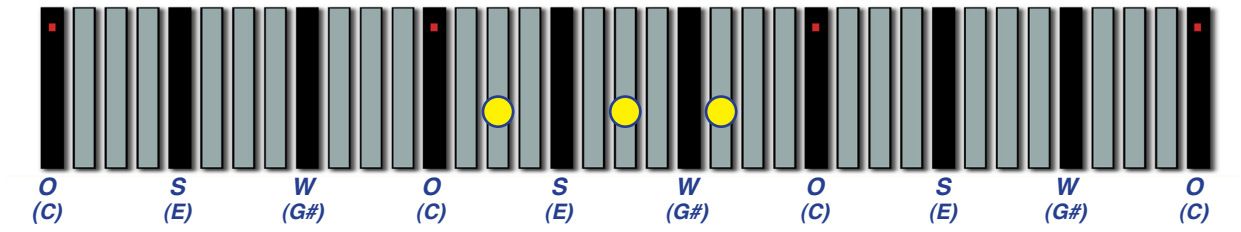


These same intervals used in the chromatic scale always form chords with similar harmonies and this is the case no matter what the starting note was.

Thus by moving the position of the fingers of one slot, we create the Ka chord (C sharp) presented in the example mentioned on the page above.



By moving again of one slot we increase the value of another semitone and create the D major chord.



We could of course pursue the demonstration for the whole stretch of the scale because this rule applies to every key, to every form of scale and to every harmonic construction.

With such simplicity it is even possible to read a score in one tonality and play it in another.

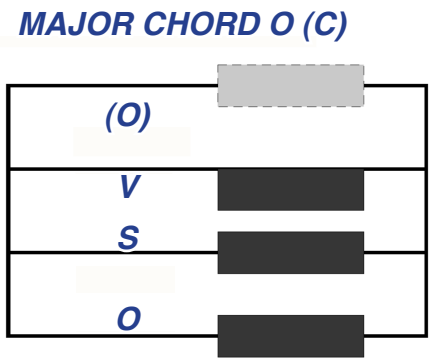
The Musical Architecture Is Revealed

The DODEKA method allows to bring the real structure of the chords to light. Thus with this writing system, we learn the intervals proper to each different chord. These can then be applied to every key.

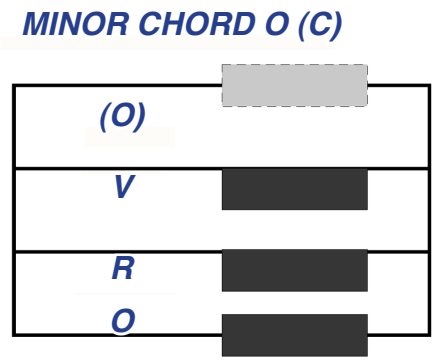
In regular scores, the spaces between the notes are constantly modified by the position of the notes. An equivalent chord thus has numerous graphical forms.

But this illogicality disappears with the DODEKA notation. The graphics of the notes faithfully transcribes the intervals between notes. This allows to grasp the geometrical form of the intervals that separate the notes. Since these spaces are conform to the sound reality, it is possible to visually perceive the type of harmony that the assembling of notes will produce.

For example, the structure of the famous major chord makes two asymmetrical intervals. And surprisingly the variant of a minor chord of the same tonality makes two asymmetrical intervals as well. But the gaps are not the same and the minor version kind of contains the opposite reflection.



The intervals of a major chord



The intervals of a minor chord

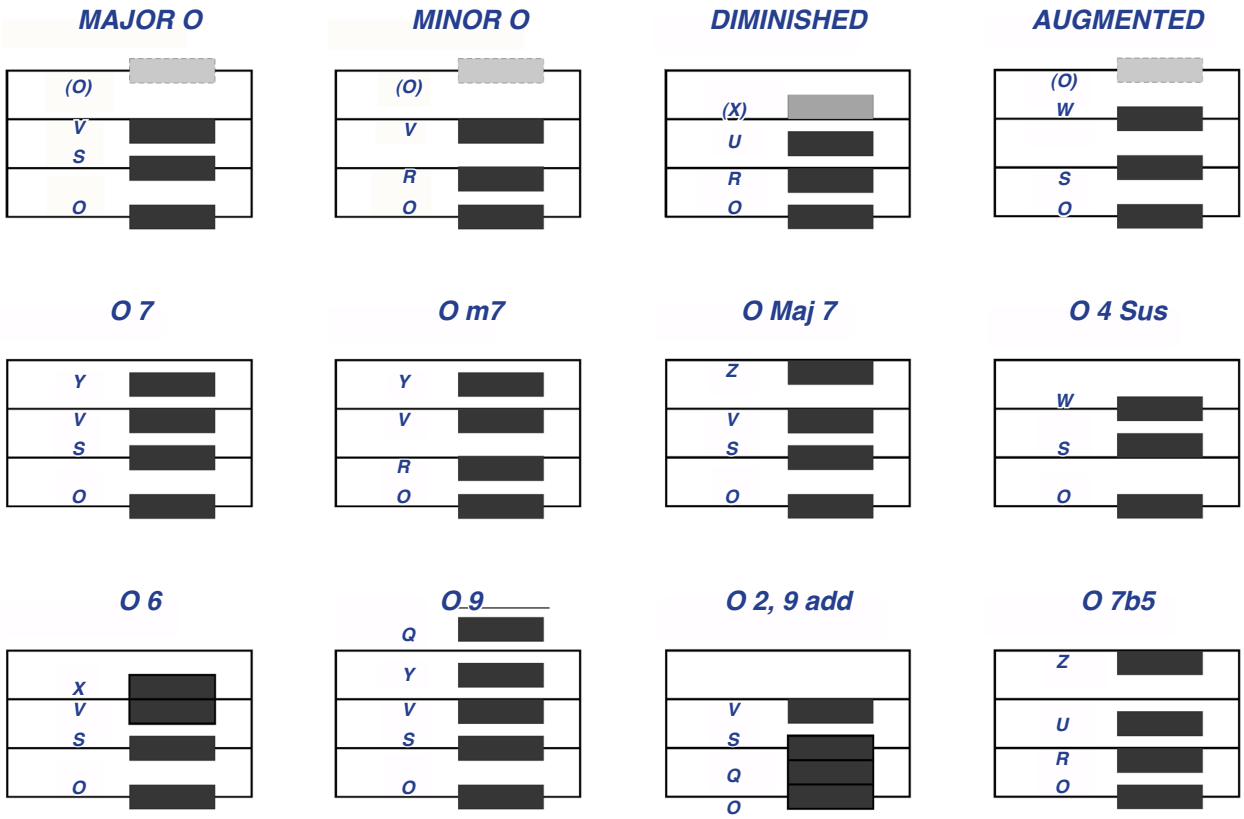
Thus the DODEKA notation enables to grasp geometrical structures that give "character" to musical chords.

Several chords have an asymmetrical structure (major, minor), others have symmetrical intervals (diminished, augmented, m7), others are made of a group of notes separated by the same intervals.

This graphic vision of music is very interesting and allows to reveal the relations that exist between a group of notes and their capacity to convey impression to our psyche.

The DODEKA method conveys the structural vision of music that the traditional notation had unfortunately hidden.
With habit, it is possible to globally grasp the different chords without having to sight-read each note.

TABLE OF THE MAIN CHORDS WITH THE DODEKA LETTER IN O (C):



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To Go Further...

The graphic system of the DODEKA method allows us to understand that music is a game of "mathematical" intervals between two axes. The first, the vertical axis, is the one for the notes and the sound frequencies. The other, horizontal, is the one for time and the rhythms. This global vision allows us to make the hypothesis that both axes are governed by the same rules and enable the communication of psychic impressions.

Thus the intervals of a major chord can also be reproduced in a rhythmical (asymmetrical) sequence. Notes and cadenza would be the spaces governed by the same rules and in which we could produce structural constructions that would be appreciated by our brain.

The Rythmical Notation

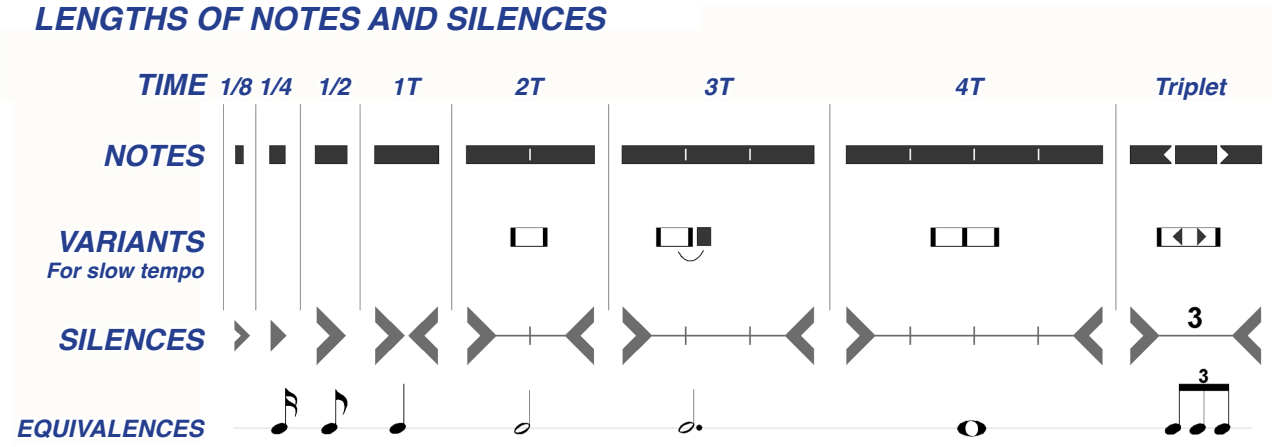
The elaboration of a new musical notation was also the occasion to make some modifications to the way of writing the music tempo. In the traditional method, the length of the notes is indicated by graphical particularities. The temporal values of eighth notes (GB: quavers) are indicated by the addition of horizontal bars. This does not simplify the reading and forces the musician to pay attention simultaneously to the position of the note's round part and to what is above it. In complex scores, these two visual zones are difficult to decode, even more so because the musician also has to consider the alterations: sharps, flats and cancels that can modify the pitch of the note.

In addition, the traditional system also created the principle of dotted notation, where a dot following a note lengthens its duration of half its value.
With this principle, the dot can represent the duration of an eighth note, of a quarter note (GB: crotchet), or of a half note (GB: minim). Since its value is relative, we have to work out its length as we read.
All these elements are not practical and offer numerous occasions to make mistakes.

An Explicit Temporal Vision

The objective of the DODEKA method was to find a new rhythmical writing concept that allows to transcribe the temporal vision of music in a clear and practical way.

Logically the easiest way to indicate the length of a note is to give it a horizontal size proportional to its duration. This is actually the system used in programs of computer notation.

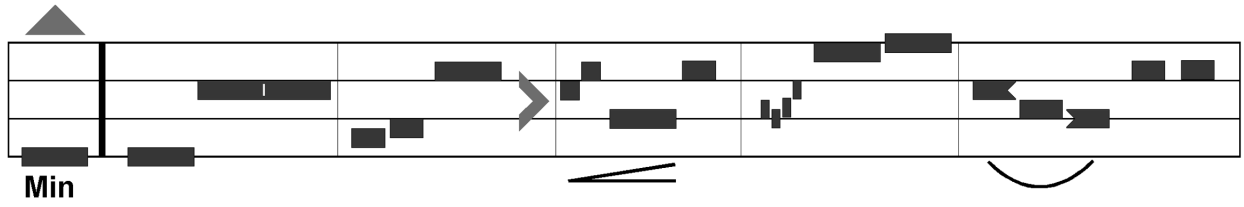


This system is most certainly less «poetic» that the traditional version that fills the scores with little symbols and graphically embellishes the notes.
However the new notation allows to directly perceive the length of the note and following a clear temporal scale.

It is thus very easy to understand that one must play two eighth notes during the length of a quarter note. Moreover, the variable value of the dot disappears and gives way to a precise indication of each time.

In practice it suffices to look at a note to simultaneously know its value and its length. This greatly helps the learning of music theory because the interactions between the notes and the musical times become evident.

EXAMPLE AND PUNCTUATION



A Variable Temporal Scale

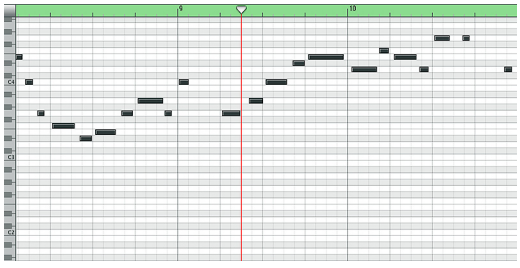
In some cases, this linear notation can lengthen the scores that contain big musical sequences with long tempos (scores for orchestras).
To take this aspect into account, the notational system DODEKA has two methods. The first allows to compress the length of the long notes with the notation in half notes. This value increases the notes' length by doubling their tempo.
The second solution consists in indicating the change to a new temporal scale in the progress of reading. This annotation redefines the notes' temporal value. For example, this allows to make the length of half notes change to that of eighth notes.

Note

Amusingly, the manner in which the DODEKA method writes music can be found in certain interfaces of musical computer programs. In 1980, when this new method was created, musical computing was taking its first steps and there was no existing way to display scores.

Later on, technology has allowed to use the computer for composing and as a "sequencer".

In this kind of program the position and the value of each note must enable to indicate the pitch of the note and its temporal length. This condition brought several programmers to present the notation on a grid with a chromatic base.



The correspondences between the DODEKA method and the interfaces of the modern musical programs show that this new writing mirrors the physical reality of music and that it allows to present music with more clarity.

Example of a Score

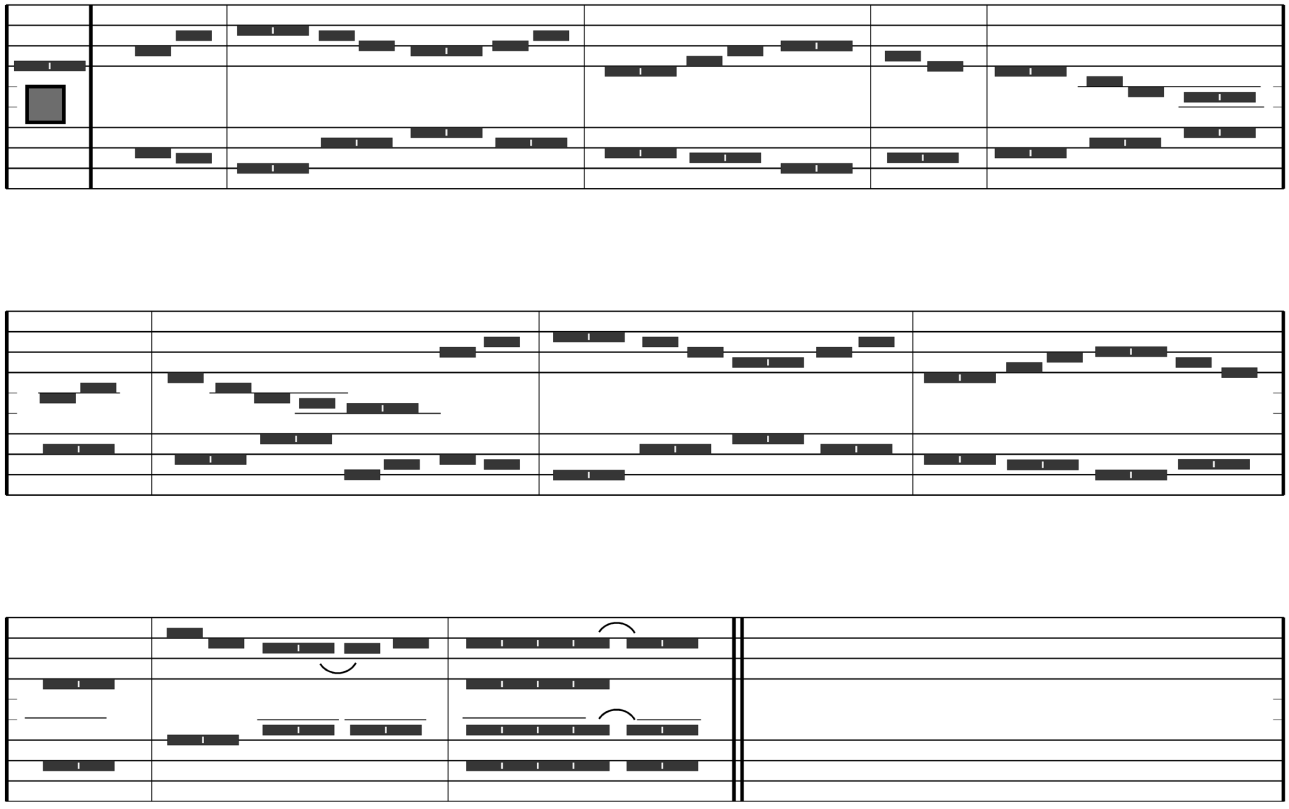
The following score is a transcription in the DODEKA method of a little composition of Johann Sebastian Bach: "Bourrées".

This well-known morceau contains several "forgotten" notes that go past the usual C major scale.

In the traditional method, these notes have to be then noted by the addition of various alterations such as sharps or flats.

But this is not the case with the DODEKA method that clearly indicates the position of the notes. The graphics allows to easily visualize the sound spaces of the melody. On a DODEKA keyboard a novice musician can locate the position of the notes and play them without difficulty.

BOURRÉE / JEAN-SEBASTIEN BACH



CONCLUSION

A Method that Handicaps

The current notational and theoretical system is probably the worst way that we could have thought up to write, play and teach music. If it were created today and with our knowledge, it would appear to be a summit of aberration and incompetence. But since it was formed in an empirical way throughout History, it was able to impose itself.

However, with its numerous defects and its lack of clarity, it handicaps all of those who wish to play music and the amount of people who have abandoned the study of music because they were repelled and incapable of understanding music theory is countless.

Accessible Music

However music is not that complex. Indeed it requires ear, regular work and a theoretical learning. But nothing justifies the fact that we should approach it through a system that keeps adding difficulties and pointlessly overwhelms with an intrusive and useless complexity.

The DODEKA method offers a much clearer approach and makes reading and writing music as easy as typing on a typewriter.
This simplicity does not come from reducing the musical possibilities but from the return to a right basis. For this reason it is an ideal tool for the learning of music and could bring its crucial advantages to schools and to new musicians.

An Easily Feasible Transfer

To this day, almost every existing composition is available in its electronic version (midi file or electronic score). The translation of the whole of the musical library with a computer program could be done within a short term.

In addition, the industrial construction of instruments integrating the DODEKA keyboard is no problem.

V.10- J.-D. Rochat - Imp.11.08

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