DODEKA

THE REVOLUTIONNARY MUSIC SYSTEM

synopsis

DODEKA is a revolutionary music system, which makes creative music expression at least twenty time easier. Based on chromatic approach of music, this system considers all twelve semi-tones as part and parcel of its internal concept.

DODEKA music system introduces a new staff, the DODEKA staff, composed of only four lines. Such structure allows inserting all twelve semitones of an octave with a fixed position in every octave. With DODEKA, reading and composing music has never been so simple.

In parallel to the creation of a new music system, DODEKA has developed a revolutionary keyboard: the DODEKA keyboard. On this keyboard, all keys are set at the same level, echoing the structure of the DODEKA staff. This innovative layout allows exploiting the rich diversity of music in a logical and coherent way.

The DODEKA keyboard and DODEKA staff work in synergy, since they both rest upon the same logic. In fact, the key's arrangement on a DODEKA's keyboard mirrors DODEKA's four-line structure. Playing the piano becomes a coherent, logical, and effortless venture.

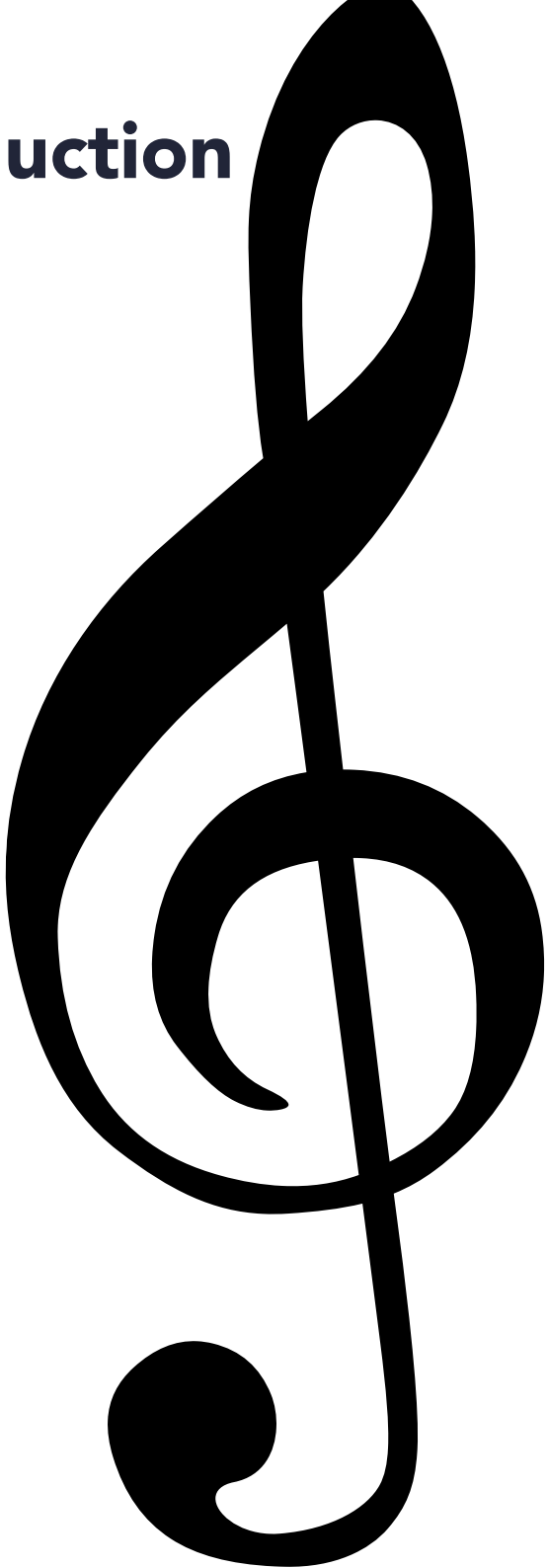
table of contents

«I have always loved playing music. At the age of 13, I started to play the saxophone. After few classes, I quickly dropped because music theory was too complicated. My passion for music led me to develop a logical alternative to this complex system: the DODEKA music system. »

Jacques-Daniel Rochat, founder of DODEKA

v. 3-10 2016

introduction



The DODEKA system is a performing manner to approach music theory, compose, and play music. Its conception, based on exact notation of the sounds, allows it to greatly simplify the current music system. DODEKA enables the transcription of all types of musical composition with a ratio of more than twenty.

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 fact, it is mentioned in the Bible in the book of Genesis that music quickly accompanied the development of humanity.

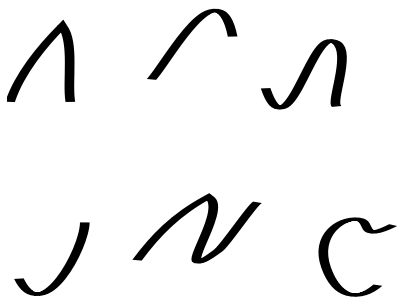
Antique Origins

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. Potential musical notation were therefore inevitably limited to regional and temporal use.

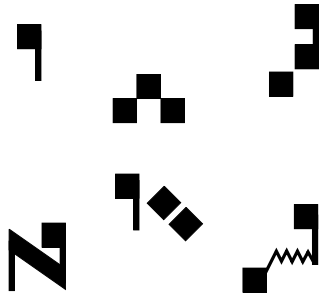
More than 3000 years BC, the Egyptians already had the means to transcribe and record the melodies of their cultic songs. Such transcription systems must also have been used later on by the cantor schools and the Jewish musicians who played biblical Psalms.

Traces of one of these music notation were discovered on Sumerian tablets of the ninth century BC. The coding, consisting of five symbols, was obtained with cuneiform characters placed on the left side of religious poems.

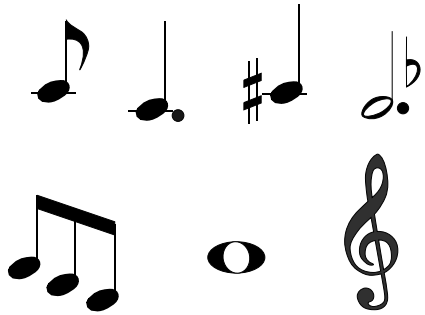
Any musician or composer charmed by a melody finds himself confronted with the intense desire to durably capture music.



9th century



13th century



Today

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 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 musical notes. The letters were topped with a sign that indicated the note's length.

Around 400 BC, Pythagoras' works shed light on the mathematical aspect of music. He (re) discovered 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 and then consisted of 1620 symbols! In about 500 AD, the Greek letters were replaced with Latin letters, in which upper case or double letters were signaling different octaves.

However, since the system was based on a subjective approach of sound, the musical scale was truncated. A way to annotate forgotten notes was to be subsequently invented. The harmonies of the Gregorian chant thus helped to create a "soft B" located a semitone below the B value. It is from this distinctive feature that the "flat" tone originated.

***Ut**queant laxis*
***Re**sonare fibris*
***Mi**ra gestorum*
***Fa**muli tuorum*
***Sol**ve polluti*
***La**bii reatum*
***Sa**ncte Ionaes*

‘So that can
Resonate the cords
Distended by our
lips
The wonders of
your acts,
Remove the sin
Of your impure
servant
Oh Saint John’

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

In the Middle Ages

Around year 1000, an Italian Benedictine monk named Guido d’Arezzo devoted his life to prayer, as well as to the study and teaching of 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.

The two first letters of each verse gave the notes name. The scale at the time consisted of 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 was very subjective and many notes were missing. In fact, the French monk Anselme de Flandres only officially inserted the Ti (B) at the end of the sixteenth century!

However, the alphabetical system has its own limits. It makes the reading of more complex melodies difficult. To overcome this difficulty, the Italian copyists inserted coloured lines, first on the F note, then on the C (UT) and finally on the A. At that time, the number of lines and colours were variable.

The tradition was to use the letter G as a reference. Once ornamented, this sign 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 became squares and rhombi, and lines linked the notes were. This graphics was generalised in manuscripts and was maintained until the fourteenth century.

the traditional system

As mentioned in the preceding historical reminder, the development of the notational system was elaborated within centuries, following an empirical process.

In fact, the traditional system was originally built from a melodic suite that lacked several notes. In order to take account of the discoveries and extensions of musical styles, this system had to be gradually enlarged.

Because this progression was not foreseen, it brought about a plethora of additions, which resulted in a complex system.

It is as if we would have to build a cathedral based on blueprints of a small house. Musical notation was yet never freed from its great defect, which is willingness to write a musical composition from a melody with a well-defined harmony.

This uncomfortable situation can be compared to the condition of people who would talk to each other by 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 of this complexity, let's conduct a few experiments on a piano. This instrument's keyboard is a material reflection of the traditional musical notation.

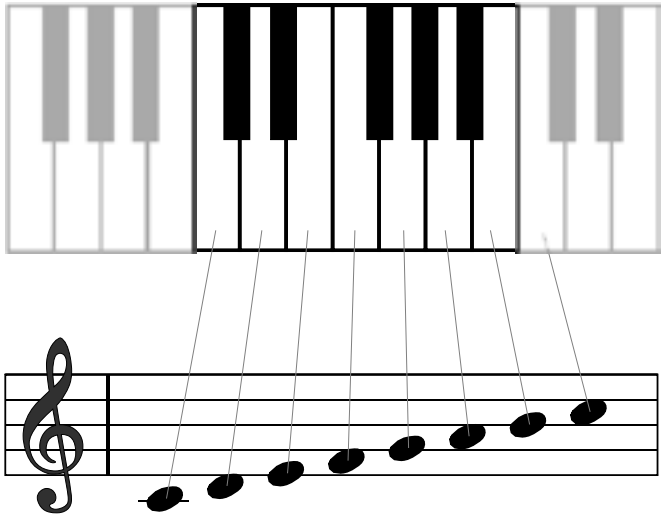
The white keys correspond to the notes on the score, while the black keys refer to the forgotten notes, signalling a pitch modifications on the main notes, namely a flat for a lower semitone and a sharp for a higher semitone.

A beginner can easily play the C major scale by successively pressing each white key one after the other. With a little more work, s/he will also be able to easily play a musical composition in that key.

Of course, this situation is totally fine for a first contact with music, as well as for those who stick to C major and minor harmonies. **But what is the price to pay?**

Sadly, the price to pay is high. In fact, as soon as the musician wishes to explore other harmonies, s/he is terribly penalized. The "prefabricated" melody brought about by the system becomes a huge hurdle full of aberrant complexity.

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



An absurd complexity

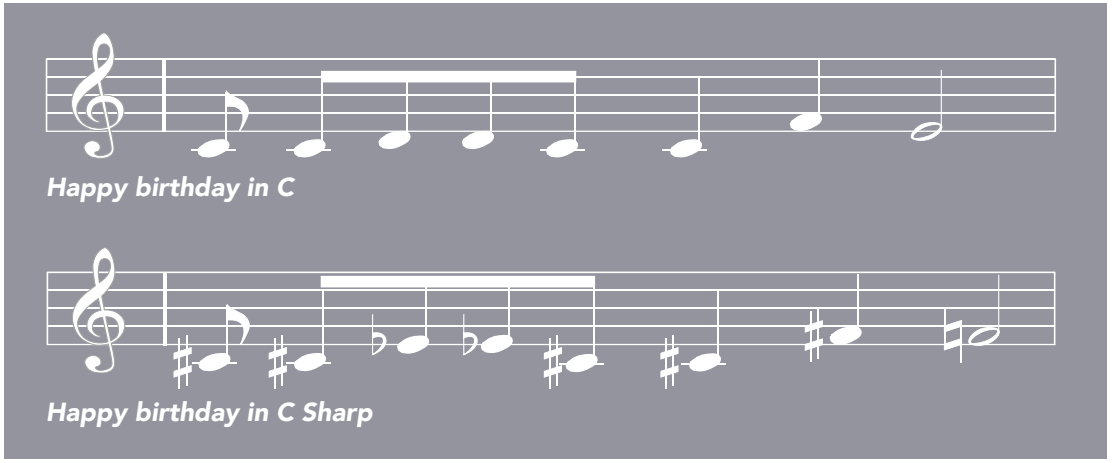
As the illustrations below show, the transposition of a semitone from a song as easy as "Happy Birthday" will end up being a painful exercice for beginners. With the change of tone, the notes will be partly on the black and white keys.

To depart from the established basic key, the keyboard and the notational system must use many corrections, creating as many variants as there are keys. To avoid correcting each note, accidentals are in some cases assigned at the beginning of the sheet music, what is usually called *at the clef*. Following these instructions, the musician has to keep the corrections in mind while playing, which significantly increases the difficulty of the task. For instance, the F sharp scale comprises six sharps that have to be taken into account for each related note! This absurd situtation leads to an unbelievable amount of possible writings and twelve different fingerings for the exact same musical composition!

What a system, what a terrible language!

And the nightmare is only the beginning. These artificial hindrances also affect the universe of musical harmonies. In this system, each chords of every scale has twelve variants, while in reality they only correspond to a unique musical structure.

Examples of complication



Although there is only one semitone of difference between the two partitions, the way the song is written is completely different. And yet it is the same melody.

A Misleading System

The somewhat complex traditional system contains another sly effect: it lies! For it is not without consequence that the founders of this musical notation have favoured a subjective melody. At that time, without knowing it, they have tied a melodic form that betrays the mathematical principles of music.

On a score, as well as on a piano keyboard, the notes C and D are set out with the same space as E and F. But nothing could be more incorrect! In reality, the space between a C and a D is of one tone, whereas between a E and a F there is only one semitone of difference.

This is certainly an unintentional "lie", however, it has terrible consequences. It in fact creates a distortion between real music and written music. As a result, what is written in the traditional system is different from what is played, creating a gap between the theory and the reality of music.

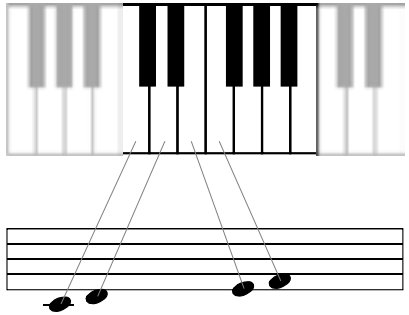
This gap lies at the core of what differentiate the composers who play and improvise "by ear" and those who perform scores more "literary". The traditional system has involuntary created two categories of musician with different approaches to music.

A Lack of Hindsight

Unfortunately few musicians are aware of the complexities and aberrations of the traditional system. Even when the DODEKA system is presented, some musicians, generally those who are the most bound to music theory, experience great difficulties to see the useless complexities of the traditional system. Their understanding of music was constructed through the "glasses" of the system and it is not easy to show them that the path could have been so much shorter.

The current musical theory appears to be like a fortress with unnecessary high fortifications. Most learners quickly give up against its walls, while a minority, determined enough, overcome the obstacles and obtain the admiration of others.

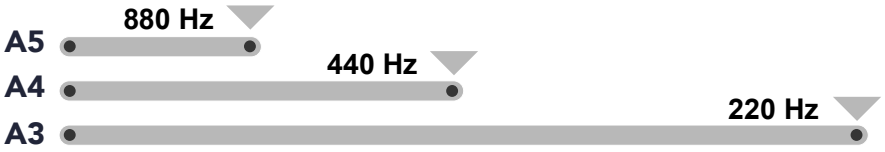
But how many musicians of quality are lost because of this absurd complexity?



The traditional system lies. What is written differs from what is played!

the basis of a good approach

Crafting a good and coherent approach is relatively simple, simply dismantle a piano. A clear and logical vision of music can be observed.



Now that the previous section has delineated the absurd complexity of the current musical notation, the needed criteria to develop a coherent concept of transcription can be outlined.

The Rule of Sound

Beyond its emotional and subjective expressions, **music is and remains a set of sounds governed by frequencies and mathematical laws**. These laws can be easily observed with strings instruments, where the production of sound depends on the length of strings. In reality, a string, stretched between two points, produces a certain sound when it vibrates according to a certain frequency.

For example, an A sound (A4) can be produced by making a string vibrating at 440 beats per second (440 Hz). If this same string is cut in half and the remaining part keeps vibrating, a sound with a frequency twice as fast (880 Hz) will be obtained. The sound will be higher in tone, corresponding to A of one higher octave (A5).

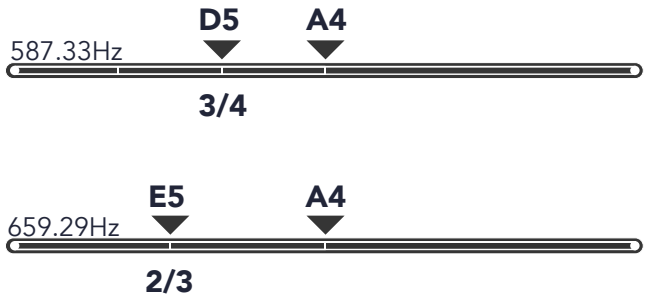
If, in contrary the initial string vibrating at 440Hz were to be multiplied by two, the string vibration rate would slow down by half, producing a lower A sound (i.e. A3).

Pleasing Fractions

The experiment can be taken further. The initial string can be divided following simple mathematical fractions, such as three-quarters (3/4) or two-thirds (2/3), to produce musical values that are appreciated by the human brain. Surprisingly, a string cut with a 1.333 ratio makes a fourth, while one cut with a ratio of 1.5 makes an accurate fifth. Such observation illustrates the relationship that exists between musical sounds and the fractioning of strings, but most of all, it underlines the **uniform aspect of music.**

As seen with the latter experiments, all musical notes hold distinctive positions on the string, suggesting that every note is in reality unique. A C# is as unique or as 'natural' as a C, and therefore, there are no valid reasons for associating the value of the latter one to the former, as the traditional system posits.

The relationship between musical sounds and the fractioning of string and the uniform aspect of music can be easily observed on guitars. Guitars necks have frets that define "spaces", where strings are cut to produce musical values that the human brain appreciates.



The Basis of a Good Language

In order to find a language capable of easily transcribing diverse musical compositions, it is essential to go back to the initial "alphabet" of the musical universe, being its reality.

Therefore, such a new approach must reject any subjective favouritism of certain notes and keys. To do so, it suffices to equally consider all "spaces" between octaves (e.g. frets). When every musical "spaces" are successively played, an octave is divided in twelve parts. This scale is called **the chromatic scale** and is composed of twelve semitones.

DODEKA adopts the chromatic scale at its basis, which allows the system to escape the useless complexities of the traditional system.

DODEKA

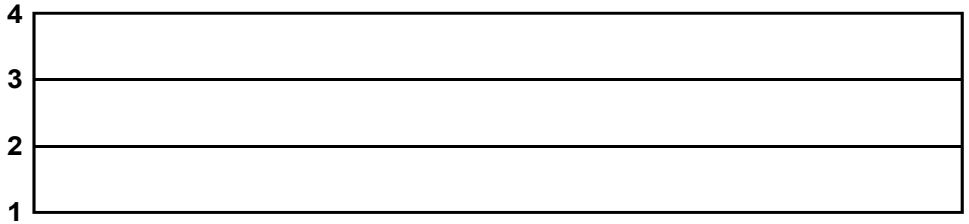
Confronted with the complexity of the traditional system, DODEKA provides an alternative system that simplifies the transcription of musical composition, as well as the playing of music. The system integrates at its core the chromatic scale, in which all twelve semitones of an octave are considered as full and equal notes.

One of the main challenges when creating a new music system is to come up with a logical system that keeps a maximum of clarity. For these reasons, DODEKA suggests placing the chromatic scale on a new structure composed of four lines.

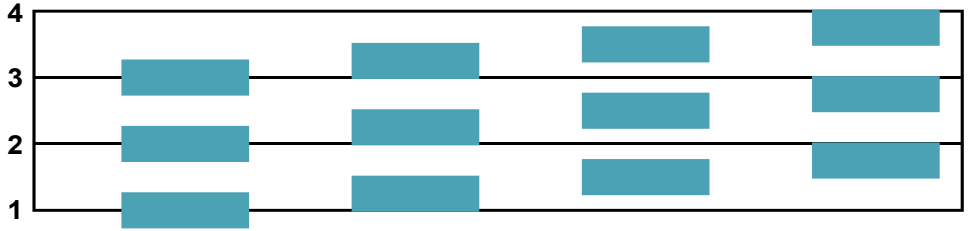
The DODEKA Staff

After various research, the most effective and clear system to arrange the twelve semitones of the chromatic scale **is on a set of four horizontal lines**, in which the notes are placed in four different ways: *on the line* (C, E, G#); *above the line* (C#, F, A); *between the lines* (D, F#, A#); and *under the line* (D#, G, B).

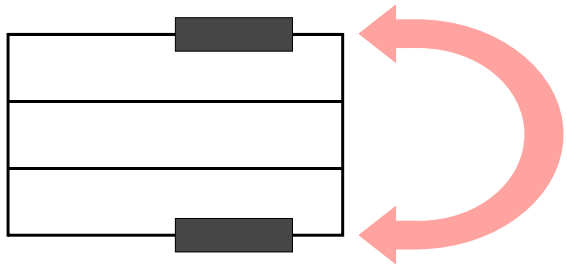
By allowing placing an entire octave within four lines, the DODEKA staff positions the notes in a logical and clear manner, which greatly facilitates reading sheet music. In fact, this structure assigns a fixed position to every note in every octave, making notes directly identifiable. As shown in the illustration, a C note is always placed on the first and/or fourth lines.



The DODEKA staff



The chromatic scale on the DODEKA staff



Every note keeps its position in every octave

With DODEKA, every note keeps its position in every octave. Reading sheet music has never been so simple!

Comparison between the two notational systems

Traditional System

Coming from an empirical process, the traditional system gives a subjective and artificial value to certain notes by favouring a key and a harmony. At first only the notes C, D, E, F, G, A, C were part of the system. Together with the note B, correcting symbols (i.e. accidentals) were subsequently introduced to encompass newly found notes in the system.

Unfortunately, such system implies serious aberrations. An E sharp (mi#) is an F (Fa), an F flat (Fab) is an E (Mi), a B sharp (Si#) is a C (Do), and C flat (Dob) is a B (Si)! Moreover, each "forgotten" note can be referred to in two ways. A D can also indicate a C sharp flat, and so on.

As a result, the twelve semitones of the chromatic scale generate more than 24 different signs! (32 forms if the "natural" symbol is added). By combining those "signs" the chromatic scale can be written in thousands of different manner, as well as any other musical composition.

The illustration above is a version, among others, of the basic scale used to make music.

DODEKA System

Based on the reality of music, the DODEKA system considers every note equally and fully without favouring a melody or a key. For this, it gives a specific name to the forgotten notes. The semitone progression is clear. Accidentals simply disappear and there is 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 consist now of the following name sequence:

C – K – D – T – E – F – H – G – P – A – V – B – C*

When compared to the traditional system, DODEKA system brings a clearer notes' arrangement. While notes have alternative positions on the scale of the traditional system, with DODEKA, they maintain their positions in every octave, simplifying the reading of sheet music.

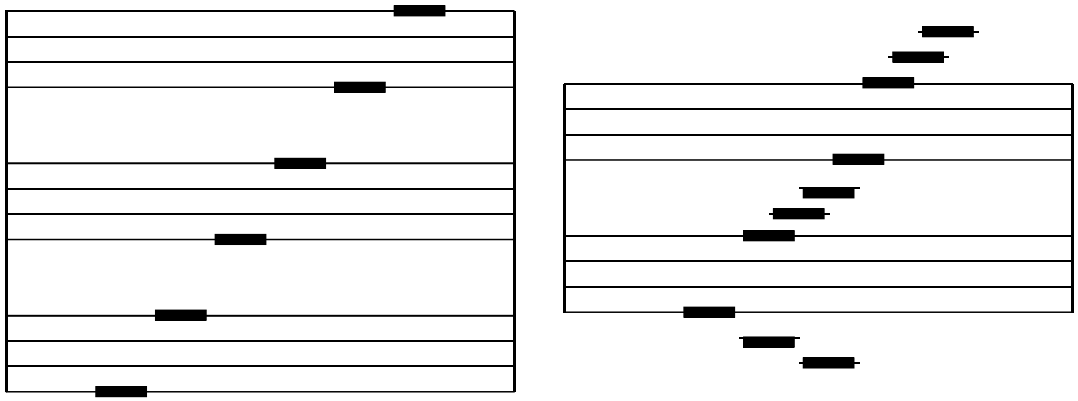
A Large Musical Palette

To cover a substantial tonal range, DODEKA offers the possibility to extend the four-line structure. Additional modules of lines can be added at will, while keeping a great. In fact, additional lines do not affect the notes' positions. A C is always on its line, being quickly identifiable.

The capacity to add lines modules allows the infinite extension of the sound space. It is then not necessary to have scales with a special layout for lower keys anymore, like for example the F scale. The DODEKA musical layout also allows easily covering the whole range of instruments of a symphony orchestra. Such coherence and flexibility greatly simplifies the learning of music.

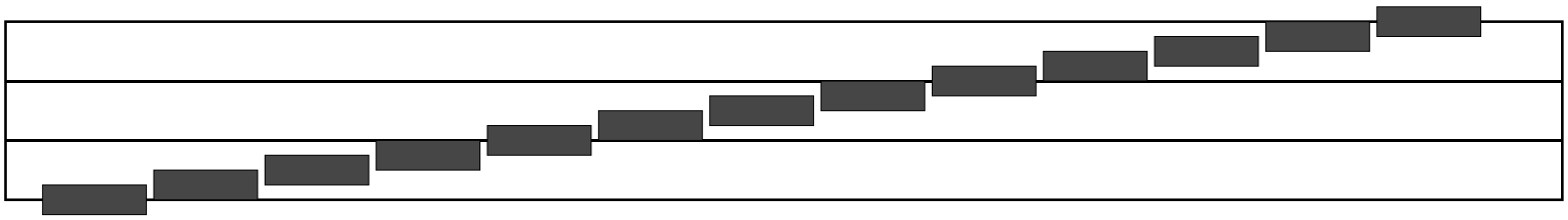
To rename the semitones traditionally forgotten, DODEKA suggests using new letters, namely K, T, H, P, and V.

Examples of staffs on modules of four and six octaves.



This graphical notation allows adding fragments of additional lines to temporarily enlarge the musical space.

DODEKA new tone code



C	K	D	T	E	F	H	G	P	A	V	B	C
C	*C#*	*D*	*D#*	*E*	*F*	*F#*	*G*	*G#*	*A*	*A#*	*B*	*C*

DODEKA's revolutionary keyboard

DODEKA introduces a new keyboard: the DODEKA keyboard.

The DODEKA system works with every instrument. However, as mentioned earlier, instruments with a keyboard such as organs, pianos, to name a few, have a structure that replicates the traditional music system. By reproducing the "defects" of this aberrant system, such designs greatly handicaps musicians.

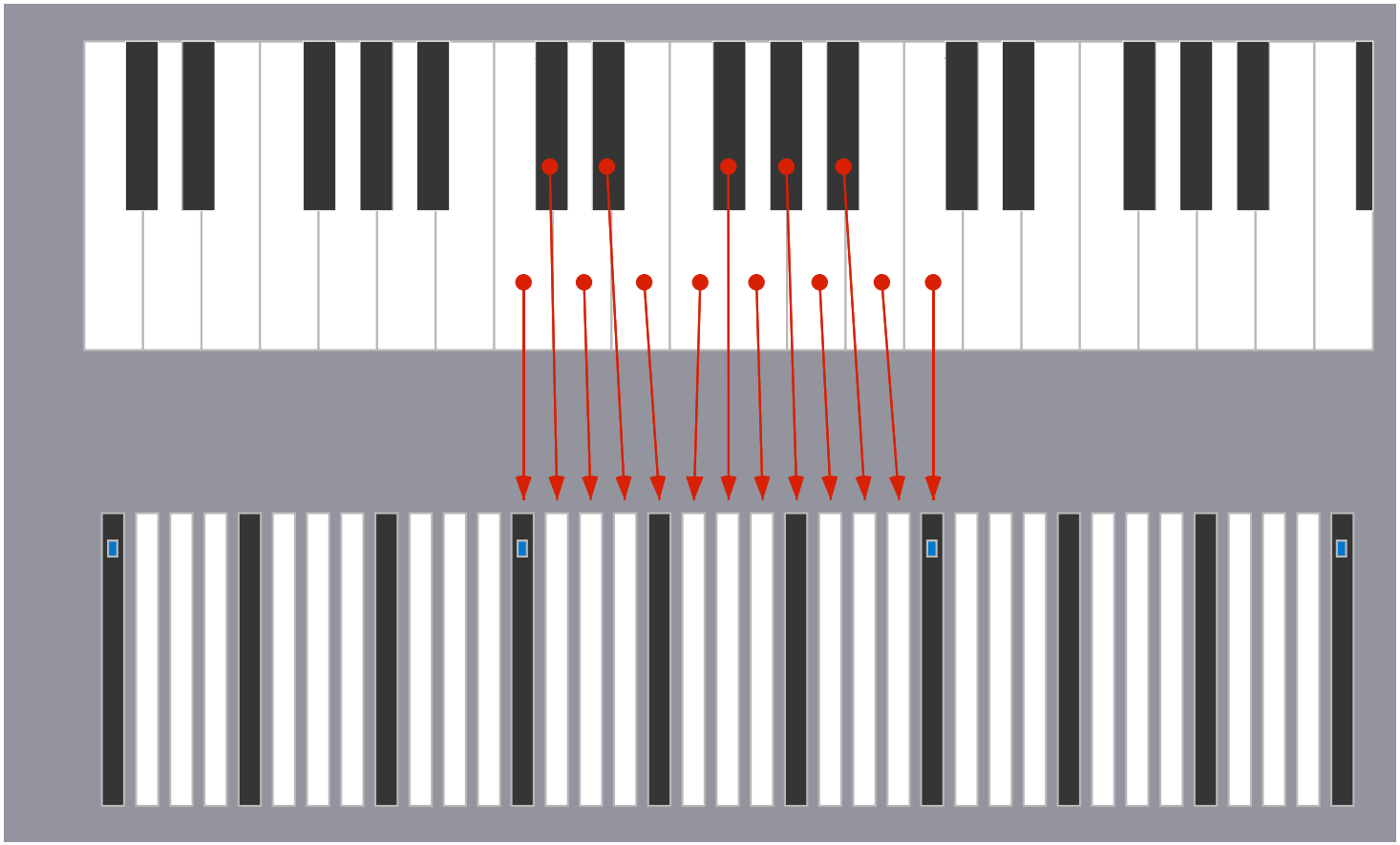
Only a keyboard that replicates the real form of music enables to fully benefit from the coherence of DODEKA and encourages musical expression, as well as learning music.

That is why DODEKA introduces a new keyboard, the DODEKA keyboard, in which all keys are set at the same level in a chromatic configuration.

The Advantages of the DODEKA Keyboard

In a chromatic disposition, each note is set side by side, and 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, and the thirds and the fifths have the same intervals in every tonality

This configuration provides an incalculable benefit for those who improvise and it avoids the long-out calculations imposed by the traditional keyboard.



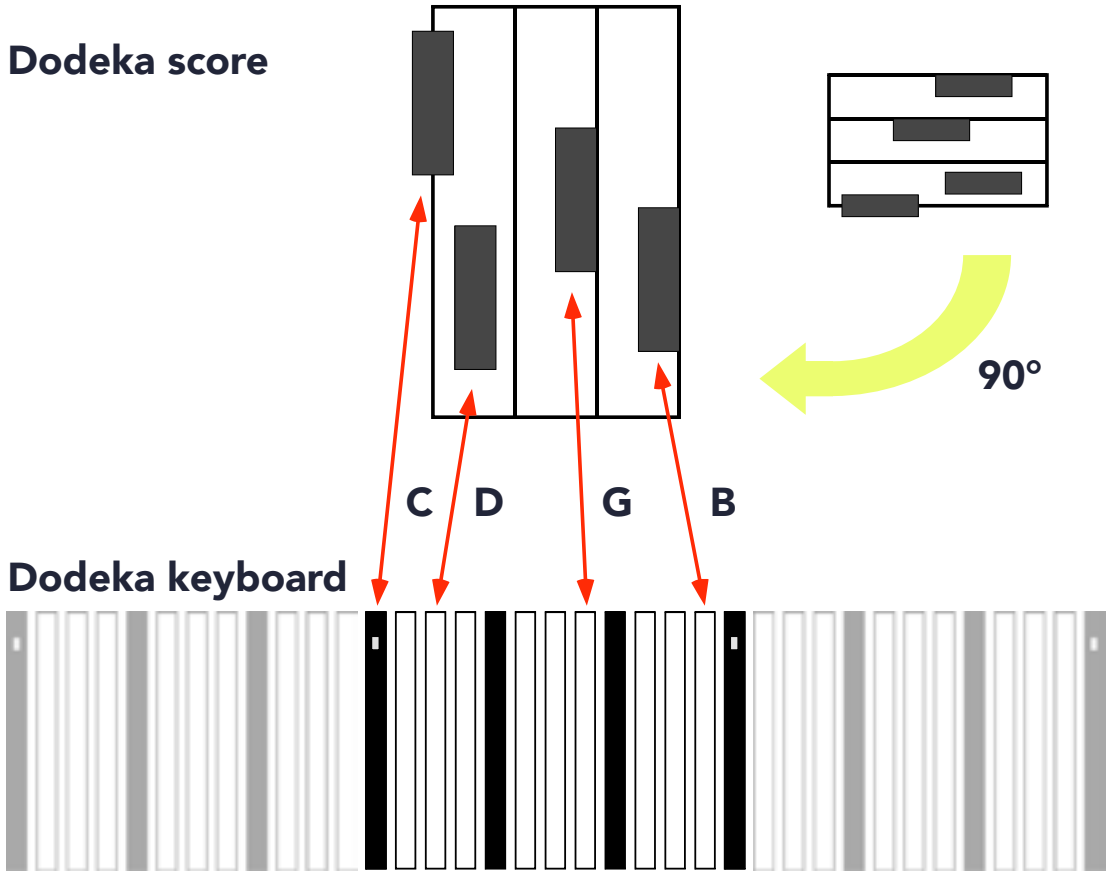
Displayed in a chromatic configuration, the black keys of the traditional keyboards are set at the same as the white ones on the DODEKA keyboard.

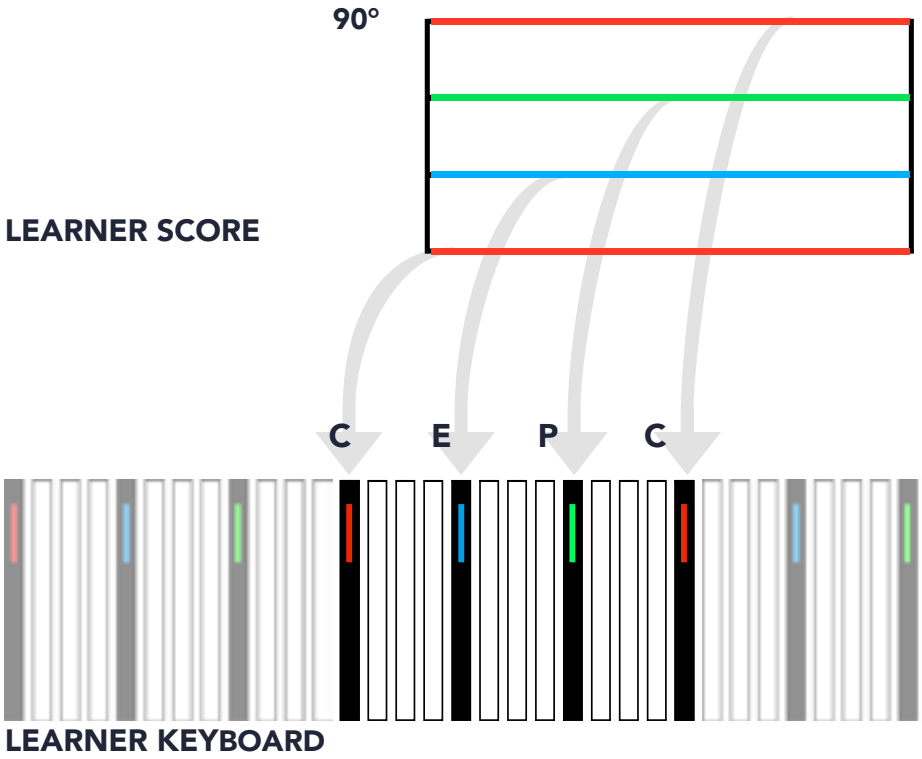
DODEKA's synergy

Synergic relationship

The DODEKA keyboard work in synergy with its music staff. This interaction comes from their mutual structure based on the chromatic scale. Because each note precedes the next, only few indicators are required to be added on keyboards to reflect the staff structure. These four indicators mirrors the staff structure, if rotated by 90°.

These explicit links provide a advantage in the acts of reading and composing music. For in practice, one only needs to press the indicated key to play the right note. No calculation is needed, as there is neither alteration at the clef, nor are there accidentals. The simplicity and synergy of this relationship enable novice musicians to quickly read and play complex musical compositions.





Adaptable Keyboards

The DODEKA keyboard also provides a suitable option for beginners. In fact, the link between the keyboard and staff can be visually strengthened on learner keyboards by assigning a colour to both line of the staff and the ones on keyboards.

For example, the colour red can be used for the two lines of the note C, blue for the E line, and green for the line of the P (G sharp).
This way, the keys are the same colour as the line to which they correspond on the sheet music.

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.

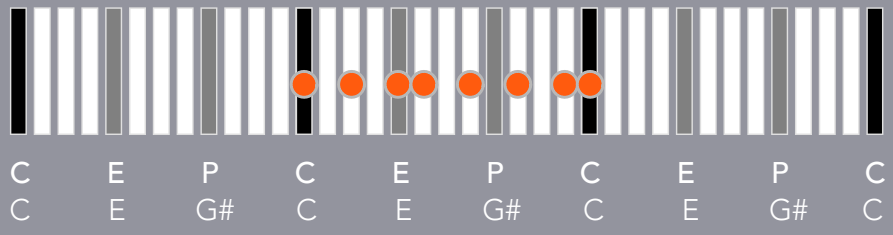
This visual link enables the learner to situate each note with great ease. It is now possible to grasp the entire notational principles of DODEKA in only one lesson. Thereafter the study time can be entirely devoted to acquiring dexterity and reflexes.

Scales and harmonies

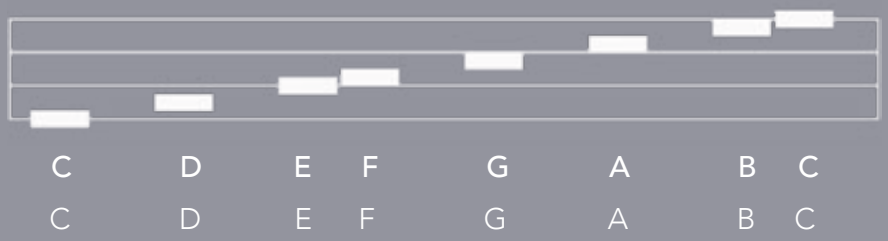
As mentioned earlier, the traditional system favours a scale at the expense of others. With the DODEKA system, there are no favoured scales and the notes on the keyboard are set out in a row. The musician has to learn how to construct any scale starting from the chromatic scale.

MAJOR SCALE in C

If the musician wishes to play in major harmonies, he will have to press the keys corresponding to this harmony. This consists in producing the following intervals.

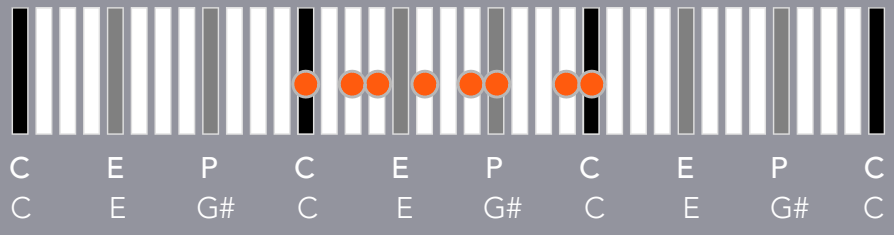


This structure, applied to the C key, corresponds to the following sequence on the DODEKA staff.

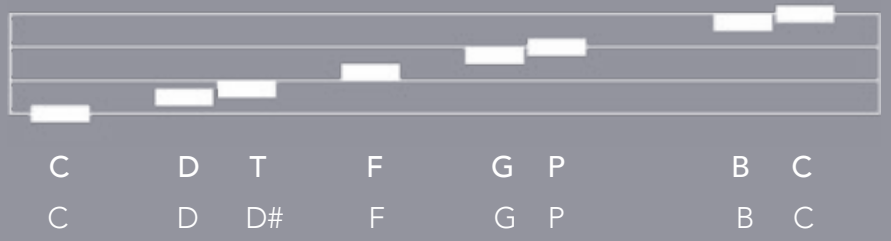


MINOR SCALE in C

If the musician wishes to play in minor harmonies, he will have to reproduce the following intervals.



This structure, applied to the C key, corresponds to the following sequence on the staff.



Keys and Transposition

One of the most impressive advantages of the DODEKA system is its capacity to get free from the key constraint.

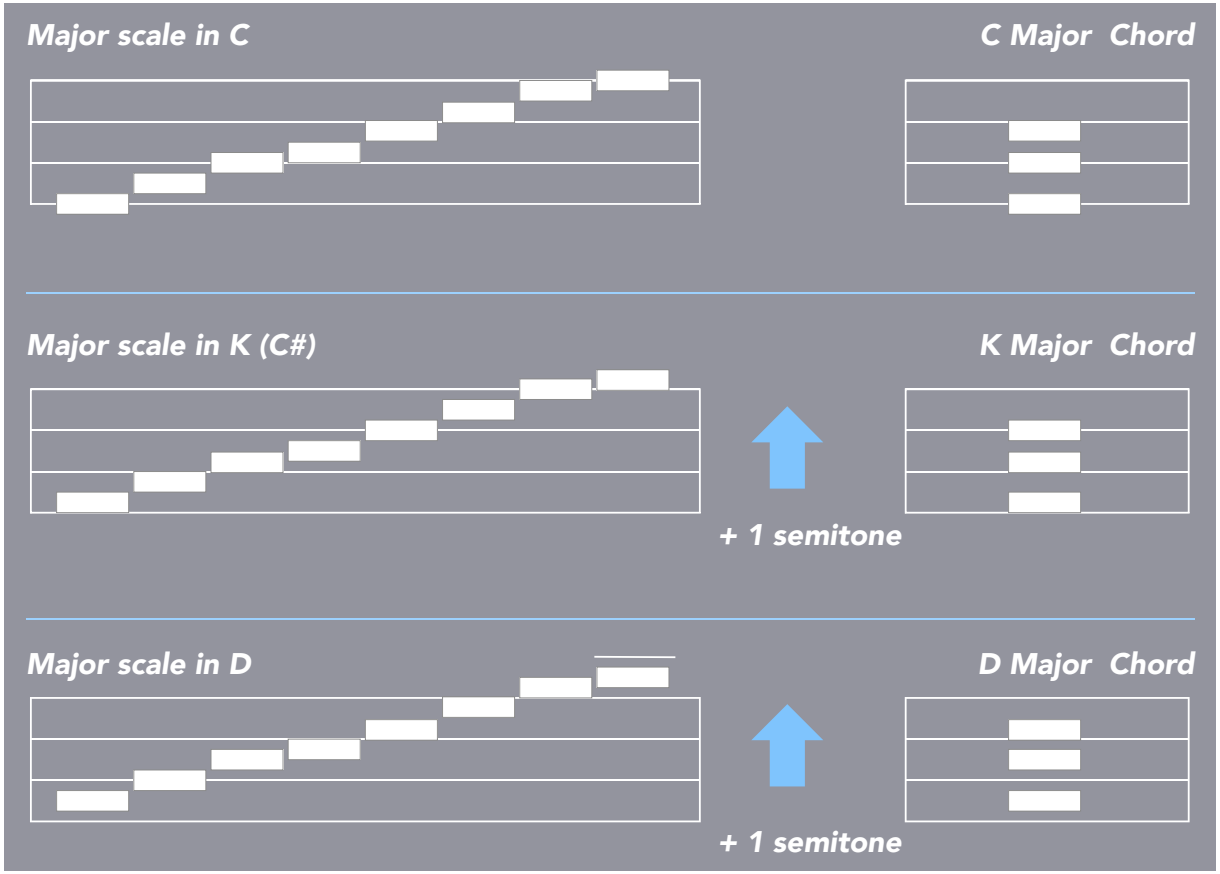
In the traditional system, any tonality change is extremely burdensome, since there are twelve ways to play the same musical composition. Each key change involves calculations and the rewriting of the score, as well as the scales. As a result, pianists constantly have to rework numerous variants of playing and this is only to master basic scales.

This aberrant situation disappears with DODEKA. When using a chromatic scale, the structure of a scale or a musical composition is always the same for the complete range of keys.

With DODEKA, one only has to learn one single major scale to be able to play it in every key. Sequence is always the same.

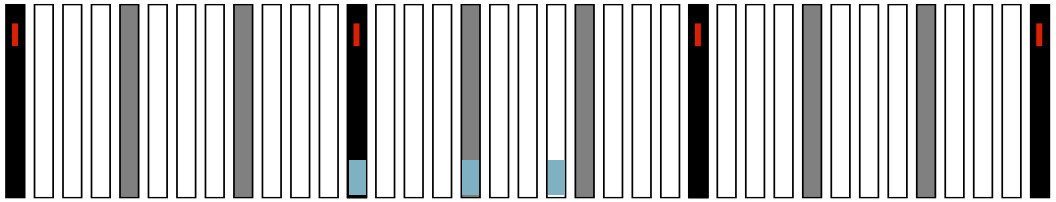
As shown in the illustration, a composition written in C major can be played in E by simply moving a line away.

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

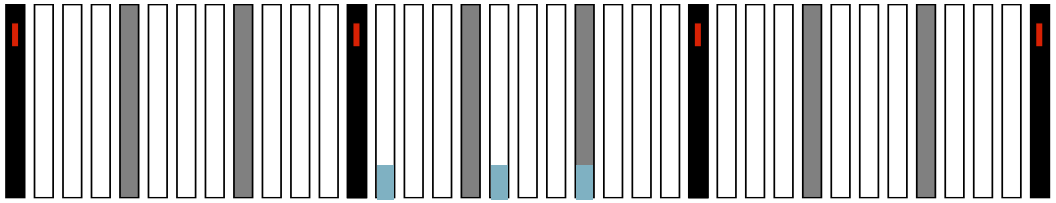


Clear transposition

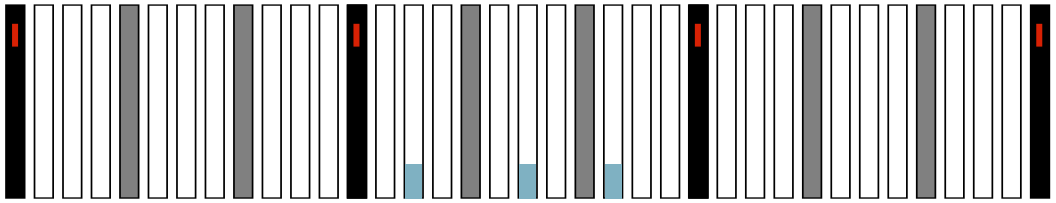
DODEKA's ability to simplify transposition not only concerns scales, but also applies to chord notations as shown in the following illustrations. With such simplicity, DODEKA enables to read a score in one tonality and play it in another.



The three-note chord of the C major type corresponds to the intervals shown above. These intervals used in the chromatic scale always form chords with similar harmonies and this is the case no matter what the starting note was.



By moving the position of the fingers of one slot, we create the K chord (C #) presented in the example mentioned on the page above.



The demonstration could be made for the whole stretch of the scale given the fact that this rule applies to every key, to every form of scale, and to every harmonic construction.

The architecture of music

DODEKA revolutionary system reveals the architecture of music. It sheds light on the real structure of chords, that is, the intervals proper to each different chord. These can then be applied to every key.

In regular sheet music, spaces between the notes are constantly modified by the alternative position of the notes. The same chord thus has numerous graphical forms.

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

For example, the structure of the famous major chord makes two asymmetrical intervals. And surprisingly the sequence of a minor chord of the same tonality makes two asymmetrical intervals as well.

But the gaps within the sequences are disimilar, in the sense that the minor chord seems to reflect the opposite intervals.

In this perspective, the DODEKA notation enables to grasp geometrical structures that give "character" to musical chords.

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

This graphic vision of music is very interesting and allows revealing the relationship that exist between a group of notes and their capacity to convey impressions to the psyche.

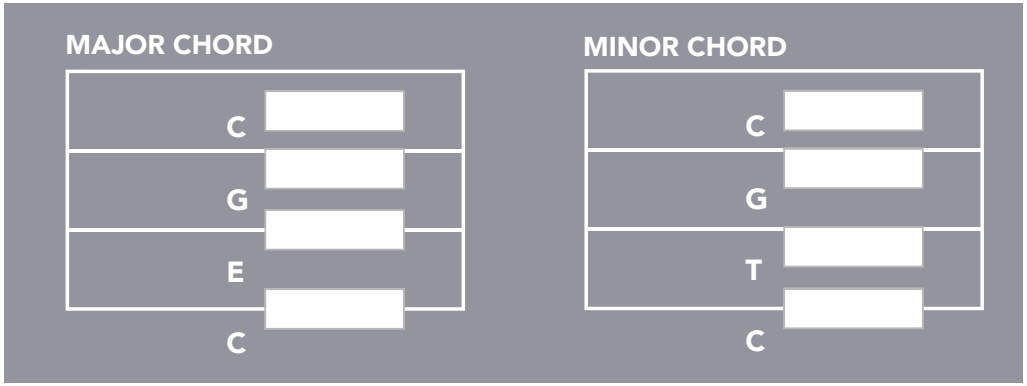
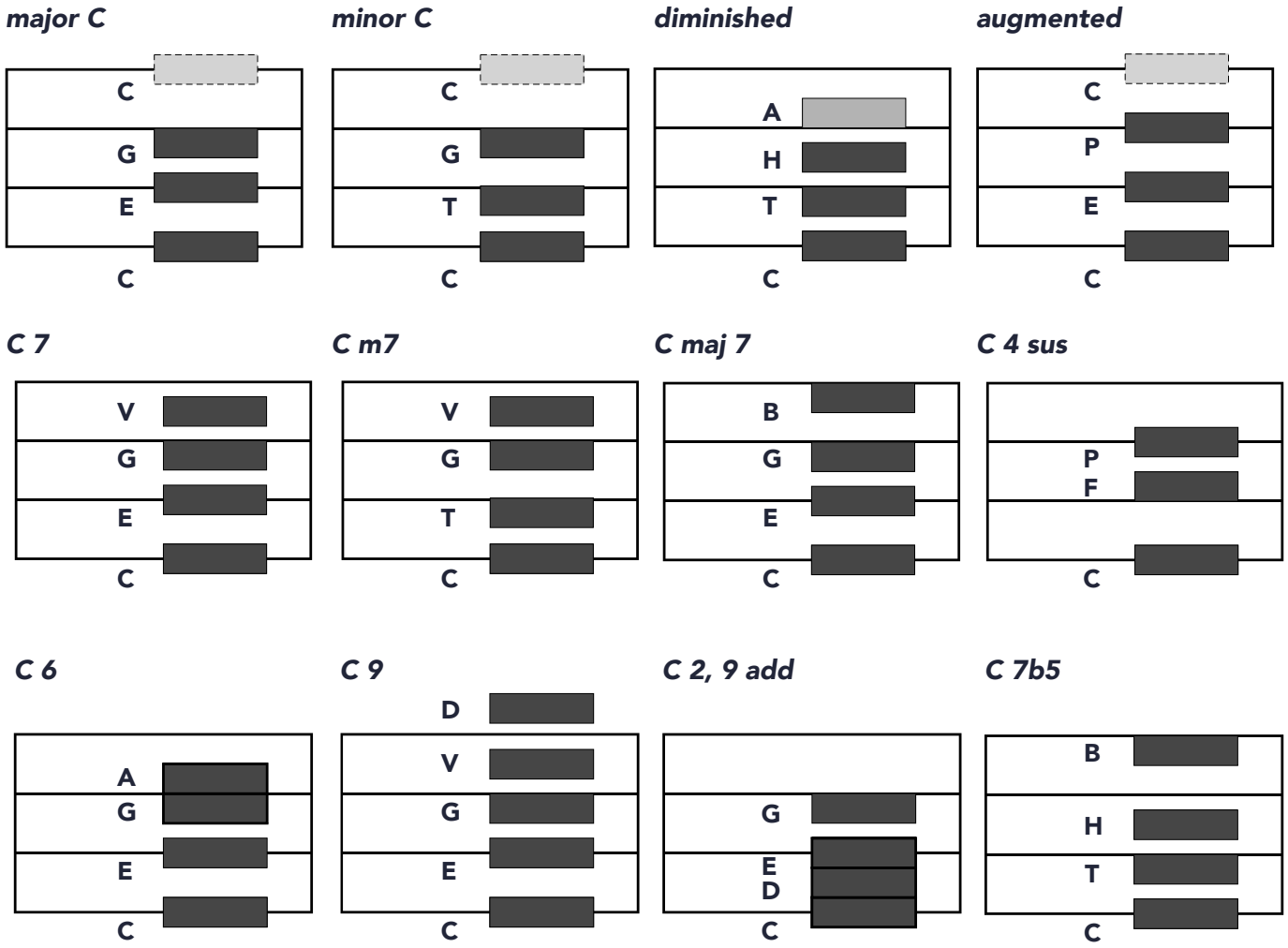


Table of main chords with DODEKA (in C)

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



To Go Further

The graphical system that the DODEKA system conveys underlines 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, refers to the axis of time and rhythms. DODEKA posits that both axes are governed by the same set of rules, which communicates psychic impressions.

From this perspective, 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 Rhythmical Notation

In the traditional system, the length of notes is indicated by graphical particularities. The temporal values of eighth notes (GB: quavers) are indicated by the addition of horizontal bars. This forces the musician to simultaneously pay attention to both the position of the note round part and what is above it, making the reading even more difficult.

In complex sheet music, 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 adds 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 not appropriate, leaving many occasions for errors.

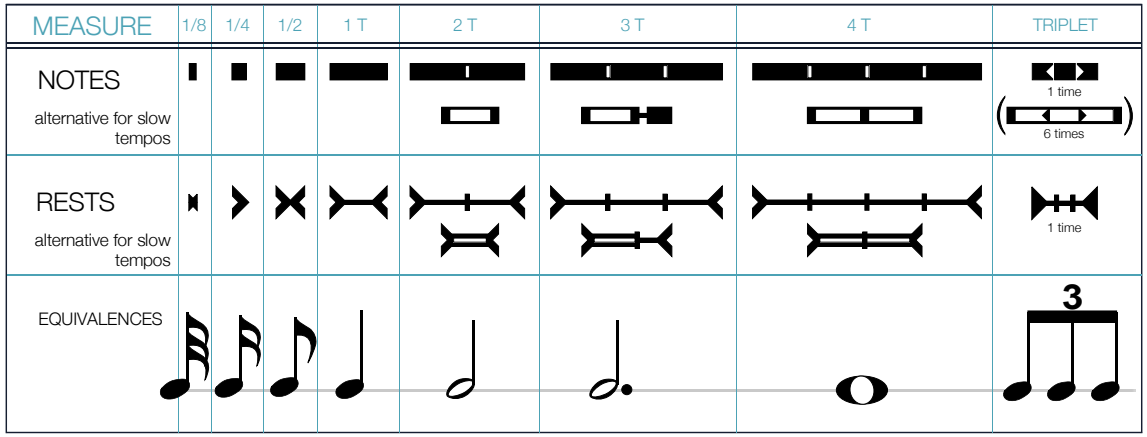
Creating a new notational system provided the opportunity to revise the way music tempo was written.

An Explicit Temporal Vision

The objective of the DODEKA system was to find a new rhythmical writing concept that enables 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 computer notation software.

At this point, it seems important to remind the reader that DODEKA has been conceived in 1980, long before the advent of music notation software.



Less Poetry, More Clarity

This way of writing tempo is obviously less «poetic» than the traditional version, which fills sheet musics with graphic symbols and embellished notes.

However, rather than poetry, DODEKA seeks clarity. Notes are set according to a clear temporal scale, which allows perceiving directly the length of any note. It is therefore 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, one only has to look at a note to simultaneously know its value and its length. Such notation greatly helps the learning of music theory as it clearly underlines the note values and their duration.

A Variable Temporal Scale

In some cases, this linear notation can lengthen sheet musics of large musical sequences with long tempos, like those for orchestras for examples.

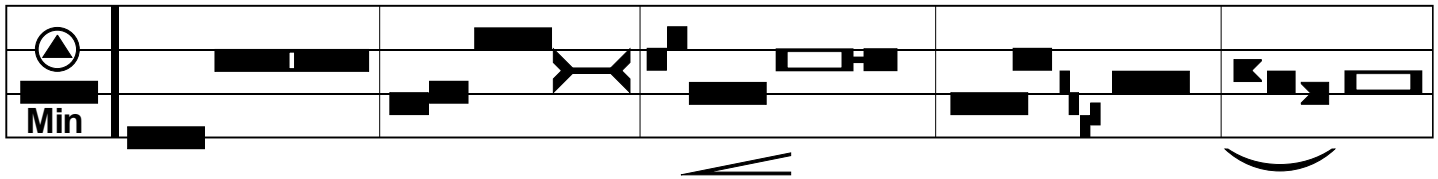
To take this aspect into account, DODEKA provides two solutions. The first one is to compress the length of long notes in half notes. By doing so, notes lengths are reduced and their tempos are doubled.

The second solution consists in indicating a change of tempo on sheet music. The annotation temporarily redefines the temporal values of notes. Such annotation allows, for example, changing the length of half notes in that of eighth notes.

NOTE: Amusingly, the manner in which the DODEKA system writes music can be found in certain interfaces of music notation software. In 1980, when this new system was created, musical computing was taking its first steps and there was no existing way to digitally display sheet music.

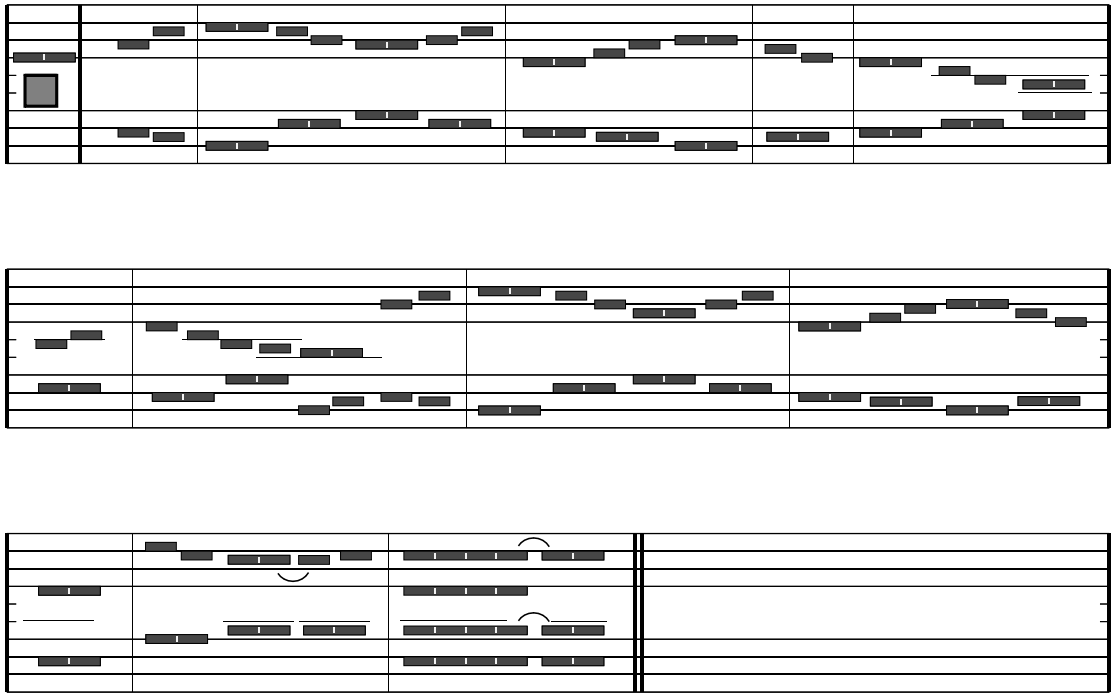
Later on, technology allowed using computers as sequencers for composing music. In this kind of software the position and value of each note indicate the pitch of the note, as well as its temporal length.

The correspondence between the DODEKA system and the interfaces of modern musical programs underlines that this new notation mirrors the music physical reality in a clear and logical manner.



example of punctuation

Bourrée, Jean-Sebastian Bach



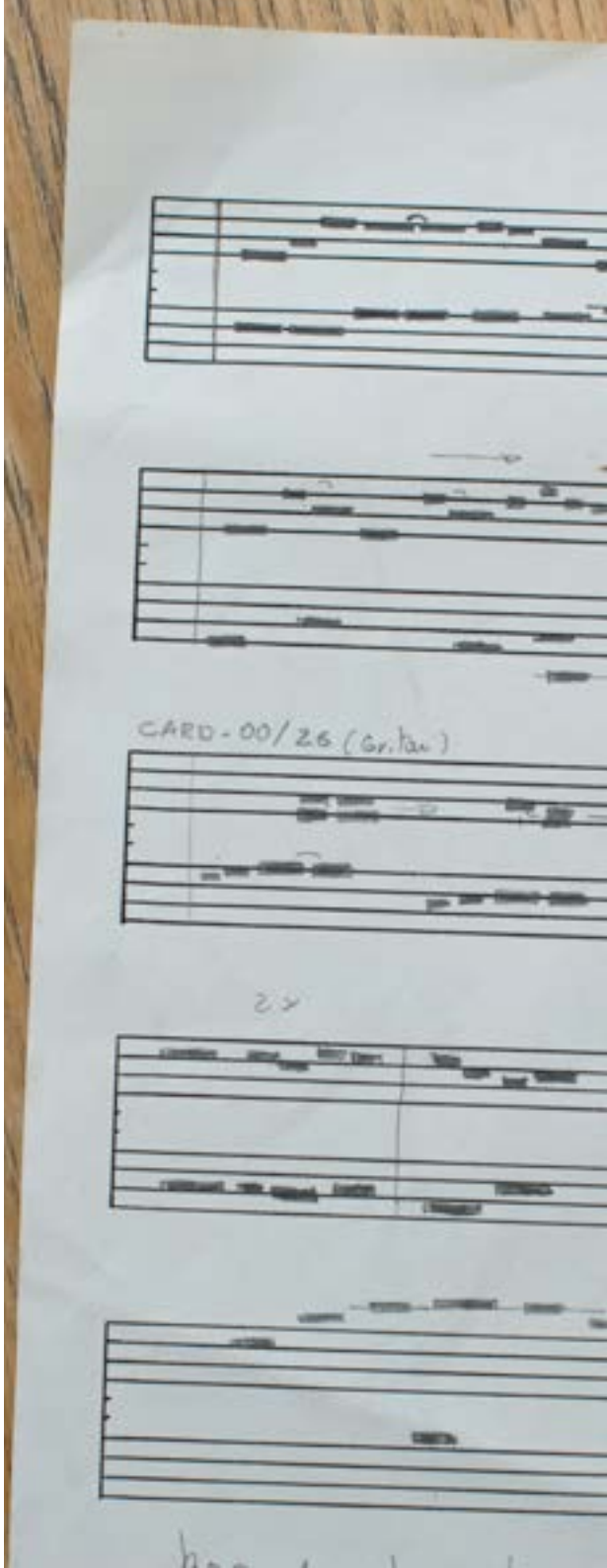
The above sheet music is a transcription in the DODEKA language of a short composition from Johann Sebastian Bach entitled “Bourrées”.

This well-known composition contains several “forgotten” notes that go past the usual C major scale.

In the traditional system, accidentals, such as sharps and flats, would have to be used to make sense of those forgotten notes,

By contrast, in the DODEKA transcription, the sheet music is devoid of any accidentals and the position of the notes is clearly indicated.

Such graphics make the sound spaces of the melody easily identifiable. Even novice musicians would be able to easily play this short composition on a DODEKA keyboard.



conclusion

COHERENT - LOGICAL - SIMPLE - ACCESSIBLE

A System that Handicaps

The current music system is probably the worst system, ever conceived, to write, play, and teach music.

If it were created today, the system would appear to be an aberration. But since it was formed in an empirical way throughout History, it was able to impose itself.

However, this system greatly handicaps everyone who would like to learn playing music.

An uncountable number of potentially talented musicians give up, repelled by the lack of clarity and useless complexities of this system.

Accessible Music

However, music is not that complex. It certainly requires ear, regular practice, as well as theoretical learning. But nothing justifies the use of a complex and difficult system, as embodied by the current music system.

For this reason, DODEKA offers a clear and logical music system, accessible to everyone. This music system greatly simplfies the reading, writing, and playing of music, whitout reducing the musical possibilities.

With its revolutionary keyboard, DODEKA provides new musicians with an ideal tool for the learning of music. Its potential for schools is unlimited.

An Easy and Feasible Transfer

DODEKA is well placed to allow an easy transfer of sheet musics and instruments.

To this day, almost every existing musical composition is available on an electronic format. Their transalation in DODEKA's notation can be easily obtained with the adequate software. Creating an extensive musical library for DODEKA can be therefore realised in a short-term period.

Similarly, the development of electronic and acoustic instruments integrating the DODEKA keyboard is a simple entreprise.

contact

www.crea-7.com

DODEKA

Daillard 36
1071 - Chexbres
Switzerland

contact@dodeka.info
www.dodeka.info

INFORMATION

The DODEKA system was created in 1980 by Jacques-Daniel Rochat. The creation of the DODEKA keyboard was achieved in the 1990s. The system was finalized between 2005 and 2010.

UTILISATION

DODEKA aims to offer a simple and coherent way for learning and playing music. Its concept, language, illustrations, and content of this booklet can be freely used for personal and promotional use. Any lucrative exploitation of DODEKA would require the author's prior consent.

DODEKA

www.dodeka.info