# THE NEW MUSICAL NOTATION

without clefs

without sharps ♯ 𝄪

without flats ♭ 𝄫

without naturals ♮ ♮♮

*by*

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I shall endeavour, in this short essay

1.) to expose the essential facts of our musical system, in use by the majority of civilized peoples,

2.) to demonstrate the inadequacy of the present-day musical notation, obsolete for the usage it has in view, and

3.) to establish the principles of a new musical notation, of my invention.

## SOUND

We distinguish in the phenomenon called sound, resulting from oscillations of bodies at exact and regular intervals called PERIODIC VIBRATIONS, the following properties:

1.) PITCH, defined by frequency, that is the vibration-number of oscillations of the vibrating body in one second

2.) LOUDNESS, depending on the amplitude of the vibration

3.) TIMBRE, resulting from the occurence and relative intensity of the harmonics in relation to the fundamental tone

4.) DURATION, a purely musical quality.

All these qualities are measurable, which should enable us to establish the identity of a sound, as well as the relationships which may exist between two or more sounds with precise means. These relationships can be simultaneous, successive, and simultaneous-successive.

We consider a sound HIGHER when its frequency is expressed by a greater number, and LOWER by a smaller. But these terms, although in use since antiquity, have no rational meaning, but are more of a poetic and picturesque nature. And LOUDER when its amplitude is greater, whereas SOFTER when it is smaller.

A sound is conceived and audible not only in frequencies of whole numbers of vibrations, but also by fractions.

## AUDITION RANGE

The smallest frequency by which we hear and perceive a sound is 16, and the greatest about 16 384. Between these two numbers lies the AUDITION RANGE, and our ear is capable of distinguishing quite a number of sounds in it. It would seem impossible to establish any relationship among these numerous possible sounds, and no art of music could exist, were not our ear and perception capable of considering certain sounds as alike.

## ALIKE SOUNDS

In starting from any sound in an ascending direction in producing sounds, as close to each other as possible, we arrive at a sound which seems like the initial sound; and in continuing arrive at another like sound and so on. The same experience can be done in the opposite direction.

The acoustics gives us the explanation in stating that the higher similar sound has the double frequency of the initial sound, and the lower similar one half of the frequency. As every sound can have several superior or inferior similar sounds, according to the position it occupies in the audition range, the frequencies of the superior sounds are the powers of the number 2 (2,4,8,16,32....) and of the inferior sounds their reciprocals ($1/2$, $1/4$, $1/8$, $1/16$, $1/32$ ....), the frequency of the initial sound taken as a unit.

## HOMOSONANCE

In music we call INTERVAL the distance which separates two sounds in relation to their pitch, and for the interval which separates two consecutive similar sounds I propose the name HOMOSONANCE. I consider this name more suitable than the old name "octave", because the octave is not an acoustical conception, but the name of an ordinal number of a particular set, peculiar only to the heptaphone diatonic musical system. When a new idea has arisen, or is conceived and delimited, it is natural to label it with a particular name, in order not to be confused with other, sometimes similar ideas. We will see later that the homosonance does not have the quality of engendering other tones by subsequent superpositions like other intervals, hence is not able to be taken as a unit for erecting musical systems.

This phenomenon of the homosonance is one of the most essential facts of all music, and as such recognized by all civilizations and ages, but differently named. By it we are able to reduce the multitude of sounds in the audition range to the study of a partial audition range limited by the interval of a homosonance.

## REGION

Starting from the lowest sound (16 frequencies) we can establish its ten homosonances, and we shall call each of these partial audition ranges, limited by two consecutive homosonances, a REGION. Thus, our audition range is divided into ten regions, and we shall designate them, in starting with the lowest one, by ordinal numbers: first, second, third . . . tenth region. By region is understood not only the interval of a homosonance beginning with frequency 16 (and further: 32,64,128,256,512....), but also all the sounds which may take place in it.

## MUSICAL SYSTEM

A musical system is an ensemble (set) of sounds of different pitch, disposed in a certain manner in a region, and all the intervals which result from such a disposition. A musical system is given by the definition of a single region, because all other sounds in the rest of the audition range are only the homosonances of the defined region.

## TONE AND TONIC

We shall call a sound belonging to a given musical system a TONE. In considering the tones of a musical system as an ascending set (series), we shall try to establish their relationship with the initial tone, which we shall call the TONIC.

## BASE AND TOP

Every (simultaneous) interval has two tones, and we shall call the lower the BASE, and the higher the TOP of the interval.

## INVERSION

The inversion of an interval is an operation (rearrangement), by which one displaces one of its constituent tones into its consecutive homosonance (upper or lower), located in the direction of the other constituent tone of the interval.

The inversion can be accomplished both with the base or the top, and by it the base becomes the top, and the top the base. In both cases the result is a new interval, always the same, but in different regions.

The homosonance gives by its inversion an equisonance. (See later.)

## MEZE

The only exception is the inversion of the interval which divides a homosonance, and which we could name MEZE. It corresponds to three whole tones of our equally tempered scale, approximately an augmented fourth or a diminished fifth. By inversion the meze gives as a result the same interval.

## NATURAL MUSICAL SYSTEM

The musical systems can have a different origin, according to the manner of engendering and fixing their tones. One of them is given by nature itself, by the set of harmonics of a fundamental tone, and such a system is a NATURAL MUSICAL SYSTEM. The number of tones in a natural system is always a power of number 2 (2, 4, 8, 16, 32, 64, 128....), as we take always a region contained in a space of two homosonances of the fundamental tone, which includes always all the tones of the lower regions. But so far, such systems have not been practically used, except in a few instances by the over-blow tones of certain wind instruments.

## INTERVALS OF NATURAL SYSTEMS

The intervals of a natural system are all different, and the frequencies of their tones are the multiples of frequencies of the fundamental tone, their places being designated by ordinal numbers of a set, in which the fundamental tone has the number 1. Any of these harmonics (over-tones) can constitute several intervals, and we shall give here an example with the eleventh harmonic.

(Abbreviations: F = fundamental tone; H = homosonance of F; h = harmonic we deal with; n= any other harmonic.)

A.) FUNDAMENTAL INTERVALS:

1.) in relation to the fundamental tone, h : F (11 : 1)

2.) in relation to the nearest homosonance of the fundamental, h : H (11 : 8)

3.) its ascending inversion, 2 H : h (16 : 11)

B.) CONSECUTIVE INTERVALS:

4.) in relation to the preceding harmonic, h : h — 1 (11 : 10)

5.) its ascending inversion, 2 (h — 1) : h (20 : 11)

C.) COMBINATORIAL INTERVALS:

6.) all relations to preceding harmonics except the above named, h : n. Ex.: 11 : 9, 11 : 7, etc.

7.) their ascending inversions, 2 n : h. Ex.: 18 : 11, 14: 11 etc.

Unfortunately, for these intervals there are no proper names, and even physicists designate them by names of the heptaphone diatonic system, which is only one of the numerous possible systems.

## ARTIFICIAL MUSICAL SYSTEMS

Other musical systems, which we would call ARTIFICIAL MUSICAL SYSTEMS, are obtained in two ways:

a) by SUPERPOSITION of intervals of a natural system

b) by DIVISION of a region

## SUPERPOSITION OF NATURAL INTERVALS

The superposition is an operation by which we consider the top of an interval as a new base on which we erect a new interval of the same or another kind. In starting with a consecutive interval of the natural system, for instance the third (3 :2), we can make a number of such superpositions, and always obtain a new tone; but as the second superposition would already overreach the space of the region to be defined, we shall bring all those located outside the region by transposing them into their lower homosonances.

A homonsonance is not capable of being taken as such unit, because any number of superpositions of homosonances gives as a result homosonances.

We can make also superpositions by different kinds of intervals, alternatively or periodically, or even every time by another interval.

These are single superpositions. But we can accomplish superpositions by employing simultaneously two or more intervals, and transform the top of one of them, (usually that of the greater interval) as a new base for other superpositions, either of the same kind or different.

The same proceeding can be used in the opposite direction.

All these systems, although obtained by means of intervals of a natural system (called consonances), and which I would name POLYBASIC SYSTEMS show from a certain number of superpositions on, a steadily marqued tendency to produce dissonances, their relation to the tonic becoming more and more complex. So the number of tones in a system obtained by superpositions of a single consonance is necessarily limited, if we wish to remain in the realm of consonances. The system obtained by the third consecutive interval (3 : 2), known as the Pythagorean system, is limited to 7 tones, which is our heptaphone diatonic system.

## DIVISION OF A REGION

One can divide a region in even or odd number of intervals, which can be equal or unequal.

Our actual system, in use for more than 250 years in most of the civilized countries, is a system obtained by division of a region in a dozen equal (equidistant) intervals, which do not form among themselves any consonance in the strict sense of the word. Hence there can be no tonic to which the tones can be related by superpositions or direct relations.

It is interesting to note that our system is not the only equidistant divisional system. The system Slendro from Java has 5 tones, and the Siamese 7 tones.

## THE PRESENT-DAY MUSICAL NOTATION

It should be borne in mind that our present musical notation was conceived for another musical system, in use centuries ago. When Werckmeister definitely established our actual 12-tone equidistant system, and Bach drew the necessary conclusions in publishing his "Well tempered Clavichord" in 1722, the notation did not follow the practical results obtained by embracing this new system.

But this was not the only drawback in music, which did not even follow the general acceptance of Arabic numerals, although already Leonardo Fibonacci had published in 1202 his work "De liber abaci", where for the first time he introduced Arabic (or, still better, Hindu) numerals to the West. We designate in music intervals still with Roman numerals, which has disastrous results in compelling everybody who has anything to do with written music to adopt an illogical and tiresome way of reckoning. It is impossible to make the simplest addition in music, not to say of using more elaborate computations. Yes, a musician is a human being who faithfully repeats all the errors of his predecessors, burdens his brain with oddities which would make laugh even a school-boy nowadays. I will give a few examples, using for the intervals Arabic numerals:

| | | | |
|---|---|---|---|
| $2 + 2 = 3$ | $2 + 2 + 2 = 4$ | $6 - 3 = 4$ | $3 \times 4 = 10$ |
| $3 + 3 = 5$ | $2 + 3 + 1 = 4$ | $4 - 2 = 3$ | $4 \times 3 = 9$ |
| $2 + 3 = 4$ | $3 + 3 + 2 = 6$ | $7 - 4 = 4$ | $4 \times 2 = 5$ |
| $4 + 2 = 5$ | $4 + 2 + 1 = 5$ | $5 - 2 = 4$ | $2 \times 4 = 7$ |

The error comes that we do not have a unit of measure, although it is quite easy to establish one for an equidistant system, and that we use ordinal numbers for measuring distances. The Roman numerals (still in practical use in the twentieth century!) have no conception and numeral for zero, and we cannot measure distances to be expressed in numbers without it. Zero is not only expressing the absence of units of the position it occupies, but is also an ordinal number, indicating the initial point, denoting a direction of a set of numbers.

Another illogical stock-in-trade a musician has to deal with, is the inexact graphical representation of intervals on the stave. The graphical distances do not correspond to the intervals, hence the need for using clefs, in order to determine the position of the so-called diatonic half-tones (semitones). Our intuition is constantly challenged by the inexact graphical representation, and the number of unnecessary mental operations in order to determine the exact position of a tone is so great, that it takes years for even intelligent persons to master this kind of cryptography.

## ACCIDENTALS

An accident is no such more, if it occurs at regular occasions, and a "signature" is a contradiction in terms. By its use the accidental (sharp or flat) cancels the use of "natural tones", and so we can never arrive to use more than 7 notes in a region. In placing the accidental before a note we must calculate where the tone in question belongs, and even this unfruitful operation is performed in the opposite way it is written; because we write sharp-C, but pronounce and operate C-sharp. There are notes with accidentals which could be transcribed into notes without it, and there are such which cannot. Of the 12 tones we have at our disposition 5 of them have no proper names and no place on the stave, but are named and written as related to their higher or lower neighbours.

These tones are called sometimes "altered tones", which is not true, because they are simply other, different tones. An altered tone could be only such one, which during its emission changes the pitch in such a way that we could retrace easily its original pitch. In some languages they are referred as "half-tones," with no mention whether this "half" is related to the time-value or interval or any other property. Neither would the name "half-notes" be adequate, but the name "ciphered note" better, because all addition of new signs to express one thing leads to cryptography.

## ENHARMONY

But if we make full use of the most common accidentals ♯ 𝄪 ♭ 𝄫 ♮ ♮♮ we obtain 35 different signs and names for 12 tones, which are too many. For this reason it was established an equivalence for notes with accidentals, called ENHARMONY, and there is no law for its proper use, nor for the number of accidentals we may employ. The use is apparently dictated by practical reasons, which is by itself a recognition of the inadequacy of the present-day musical notation. Enharmony has commutative and transitive properties, so that a tone (or combination of tones) can be represented by any note (or combination of notes), provided we use the necessary number of accidentals, and the number of notes and their time-value is the same.

The use of stave, clefs and accidentals, does not free even a well trained musician from performing all the necessary transpositions, calculations and other burdening mental work, he only does it quicker. But it takes him years to master this, the reading and writing of 12 tones. It is not surprising that in most languages this process is named "deciphering" music and sight reading is considered as an extraordinary feat. There is more talent in people to practice and execute music than to read and write it, and the acquisition of the later faculties absorbs sometimes so much energy and time, so that other musical faculties are neglected.

Even the supplementary calculations, which we cannot avoid, regardless of the speed with which we perform them, appear nowadays seldom in one manner and direction. We have to deal mostly with SIMULTANEOUS alterations of sharps, flats and naturals; simple, double, and even threefold.

## CLEFS

There are theoretically 15 possible different clefs, as each of the three clefs (F, G, and C) could be placed on each of the five lines of the stave; but in order to transpose or read the scores one should master at least 7 clefs. Even this number does not free us from using additional octave or double-octave transposition signs above or below the stave.

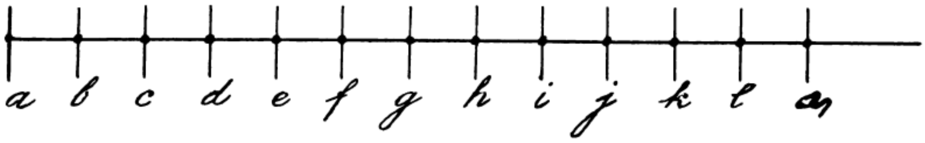
The different manners to note the same sound-reality makes it possible that an interval can change its size without changing its notes (I do not say accidentals), and retain its size with changing its notes.

## MUSICAL NOTATION GODJEVATZ

**Having ascertained that in our musical system we have 12 tones, we shall enumerate them in the ascending direction, with the first letters of the alphabet:**

**a b c d e f g h i j k l a . . .**

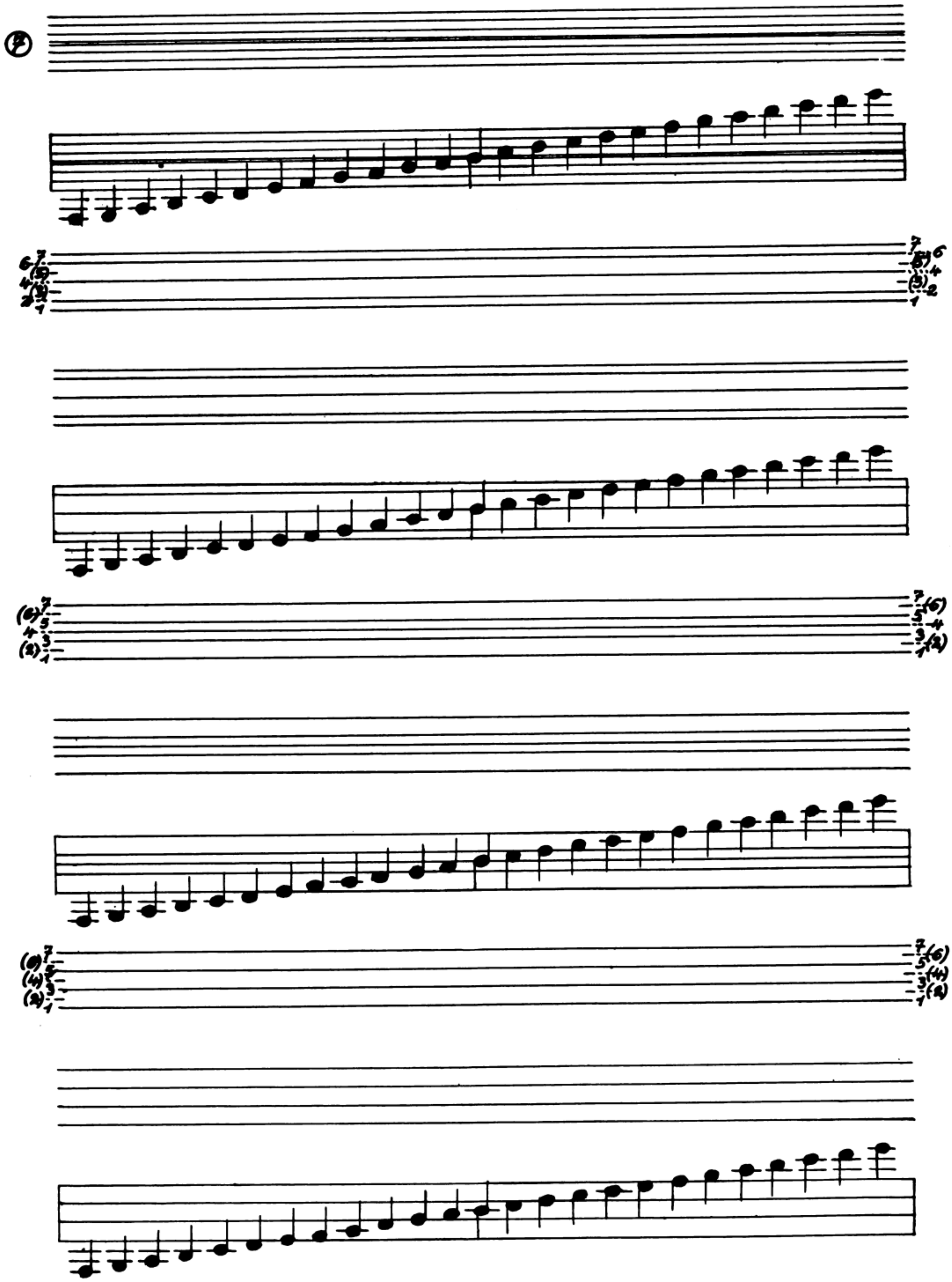
**This could be graphically represented by a straight horizontal line, divided into equal parts:**




**But, as we have said we consider in music the tones as higher or lower according to their frequency, so we could graphically represent the lower tones by lower lines, which we could prolong. The graphical representation of all the 12 tones of a region, with the upper homosonance of the first tone, would make 13 equidistant horizontal lines.**

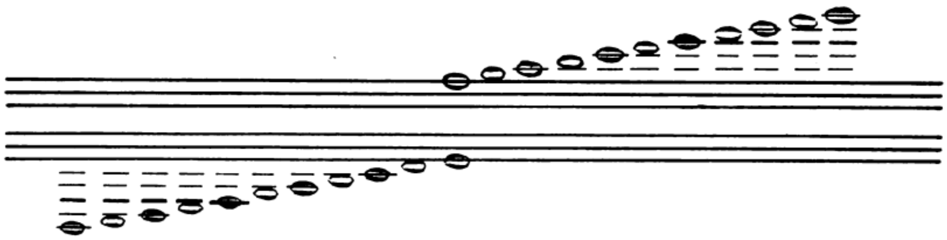

**We could now place the symbols for tones, heads of the notes, on each of these lines. But in order to save space we could place them also in spaces between the lines. This would require only 7 lines.**

Again, for the sake of clearness and ease of reading, we could omit one, two or more lines.

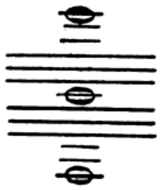


The best solution would be to omit the fourth line, the one in the middle of the stave.


We shall treat the omitted line, and the note to be written on it (G), just as we treat the leger lines above or below the stave in the old notation, it means that we shall trace partially the omitted line in this particular case across the note head when occasion for it arises. In my notation leger lines can be used as well above and below the stave, and I should suggest that the third line should be traced heavier.



The tones represented by notes on the third leger lines above and below the stave and that on the middle (omitted) line of the stave, are homosonances.



The stave of my notation embraces only one region. To know which one, we shall place in front of it the number of the region it represents, which we could call the REGIONAL SIGN OR REGIONAL NUMBER.


We could deduce now certain advantages of such a proceeding:

1.) All the tones of our musical system are enumerated. Their number is twelve.

2.) Every tone is designated by its proper name, which cannot be applied for another tone.

3.) Every tone is represented by a single graphic sign, which has its proper place on the stave.

4.) Every tone is written in the same manner, independently of the region it belongs.

5.) The graphical distances correspond exactly to the intervals.

6.) It is by it possible to superpose two or more staves, which offers considerable facilities and advantages.

## SUPERPOSITION OF STAVES

This, in turn is made possible by the fact that in my stave the notes on the first and the last line (external lines) represent two homosonances. One has only to consider the upper external line as the lower external line of the next higher region. To distinguish it from other lines one can trace this common line for two consecutive region with a dotted, double traced, undulating, broken or heavier (thicker) line.

Let it be permitted to compare this procedure with the position principle of the Arab numerals, as compared with the Roman ones. In order to write 4888 the Romans used 16 digits: M M M M D C C C L X X X V I I I. And this was comparatively a simple case, as only one kind of operation was to be performed, the addition. With numbers where it was necessary to add and subtract simultaneously in order to figure out the exact amount, even such simple operations as multiplication and division became more and more complicated. One could hardly imagine what logarithmic tables would look like with such numerals, and whether they would be possible.

By a certain analogy we could say that each region in superposed staves corresponds to a position in the Arabic number system; but instead of reading from right to left, we read the music from below upward. The positions of the units, hundreds, thousands etc. in the numerals correspond to the regions, starting from the lowest one; but we are not obliged to start with the first region, but from any one except the tenth.

One comes to master easily the reading and writing of one single region

12 TONES     12 NAMES     12 NOTES

This is less and easier than the alphabet, and by its extension (the use of regional signs), one is capable of reading any score. We have a tool which enables us to have an insight of the whole musical literature.

In reading or singing a musical text we can never surpass the scope of our proper voice, and for all the tones which are outside our own voice we sing or read the homosonances of the tones in question. Here is the imagination, and the phenomenon homosonance sufficient to give us a clear idea: we imagine the tones of a piccolo or a bassoon by the grasp of their homosonances, but we can never actually sing them.

## EQUISONANCE

We would call an EQUISONANCE the simultaneous or successive emission of one or more tones of the same pitch. So far as my notation is concerned, where the enharmonic transposition is becoming obsolete, this has little value for music written for one timbre. But it has meaning for ascertaining intervals.

## INTERVALS

The interval which separates two tones of the same pitch has no distance, or its distance is equal to zero; and we shall designate this interval by O. The least distance which separates two tones in our musical system, and which is not zero, is the distance between two consecutive tones. We shall take this interval (IN-ONE, for interval one) as the unit of measure for other intervals, which are nothing else than the multiples of this unit. In placing the prefix "IN" before each number, we designate the interval exactly. There are no perfect, major, minor, diminished or augmented intervals of the same name: an interval is such one, or is not.


## DUODECIMAL NUMBER SYSTEM

It would be advisable to employ for our dodecaphonic musical system the duo-decimal number system. By it is understood the number of units to be taken in one position in order to pass to 1 in the subsequent higher position. In our decimal system of numbers we have ten such digits, in the duodecimal twelve. For musical purposes, especially if we strive to create besides the notation (which can be roughly described as the geometrical representation of musical process) another way of dealing with tones, a sort of musical arithmetic, the adoption of the duodecimal number system would be of the highest importance.

## RELATIVE AND ABSOLUTE PITCH

Every tone could be easily designated by one digit only, and this would be its RELATIVE PITCH. In adding before it the regional number, (also possible to be expressed by one digit in the duodecimal number system), we could designate every tone by two digits, and this would be its exact or ABSOLUTE PITCH. The regional number plays the role of an operator, which raises the relative pitch, expressed by the second digit, to its higher or lower homosonances.

In order to have all the tones of a region with the same regional number, we shall designate the tone "a" with a zero (O), which does not mean the absence of a tone, but is the first ordinal number of a set. Thus, for instance, the third region would be written like this:

30 31 32 33 34 35 36 37 38 39 3X 3Ɛ 40

The table of complementary intervals, which is nothing else but the superposition of intervals and their inversions, is then:

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | X | Ɛ | 10 |
| 10 | Ɛ | X | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

In this case, according to the duodecimal number notation, 10 does not mean ten, but a dozen.

## CHORDS

To designate simultaneous tones (chords), we need only fix the lowest tone by its relative or absolute pitch, placing after it the decimal point: and after the decimal point designate every subsequent tone by its distance from the preceding one.

Ex. : 34.43 29.333 40.345 52.44

The first is a major triad on E, the second a diminished chord of the seventh on J, the third a minor triad with the upper homosonance of the ground-tone on A, and the fourth an augmented triad on C.

I used the old denominations of chords in order not to arouse confusion. But a new nomenclature would be necessary, simplified in analogy with this notation and interval measures. This will be the object of another work.

## FURTHER POSSIBILITIES

The mental burden which fetters every musician nowadays can be relieved, and himself freed from all unnecessary work in order to concentrate on more advanced problems, only by adopting an adequate musical notation. In other words using a symbolism by which all transitory reasoning could be done almost mechanically, and so this time-saving device be of the highest value to creative work proper.

If, to use some accepted opinions, humanity passes successively through three stages of development: mystical mentality, common sense and scientific spirit, we are as regards music (in its rational aspect) still in the first stage.

It is not an exaggeration to say that the solution of certain tasks and problems, as well as the development of new possibilities, depends solely on the logical order of its constitutive elements and the proper choice of the nomenclature.

Our task is to revise all the fundamental ideas of music, and this must be done by introduction of a new notation. This notation should offer a more perfect tool in the hands of a musician, offering him a wider outlook to new possibilities, for it is a time-saving device which eliminates all unnecessary mental and material operation, so that the output of creative artists would be by its use considerably augmented.

At the same time it should be accessible to every intelligent person, just as the reading and writing of one's mother-tongue. Its foundations and general ideas should not be in contradiction to other fields of human knowledge, so that the logic we use for everything else would be equally applicable to music. Every creation presumes an order or governing idea, and only ignorance and incomprehension label its phenomena as mystical wonders.

The mastery of instruments by professionals, as well as amateurs, would be highly augmented, and the learning time would be considerably reduced. This would have the effect of permitting a greater number of persons to learn to play an instrument, people who otherwise would not expend the time and effort required to master a good reading-knowledge of music, a condition of prime necessity.

## NEW SYSTEMS

Let it be added that the recent developments of new musical systems: 24, 36 and 48 tones in a region (which are, by the way, all multiples of a dozen), can have a real start only by adoption of a musical notation with the base dozen, and not seven, as it stands now. A few supplementary signs would be necessary however.

## THE VALUE OF A NOTATION

The musical theory stands on the supposition of seven tones of a "natural order", and the musical pedagogy is a mixture of false theology reinforced by military drill, even the taming of wild animals. Not even wishing to enumerate the tones we dispose of (for the last 250 years), we have arrived at a stage where there are more exceptions than rules, which are mostly "explained" as divine or devilish inspirations. But it was not always so.

In times when accidentals were really exceptions, up to the sixteenth century, everything was clear, and a highly elaborate technique evolved. The number of musical signs (notes), names and tones was equal, and I look upon this equality as the preliminary condition of all fruitful undertaking. It is true that even then the semitones were graphically represented as whole tones, and this leads us to the conclusion that *MUSIC NEVER POSSESSED A TRUE NOTATION.*

But, with the advent of the 12-tone tempered system the things got worse. We know that 7 is a prime number, and that 12 is divisible by 2, 3, 4 and 6. It is impossible to express anything adequately in a twelve-system by seven. To cite only a few of musical idioms: the whole-tone scale, the much used and abused diminished chord of the seventh, or the augmented triad, which are simply the division of a region in 6, 4 and 3 equal parts, can never be written as they should in the present way. A notation and a theory which continues for two and a half centuries to ignore the existence of nearly half of the elements of our musical system, the material of which our musical works are built up, has lost every right of existence.

It is impossible to reason on false figures. Impossible to draw valid conclusions which may lead us to discoveries of some musical algorithms, which could shorten for us the successive steps to be undertaken, in order to perfect the technique, and replace these pre-logical trials and errors by a real method. Instead of musical catechisms, with ready-made questions and answers (written by persons immune to the reality of facts), let us bring common sense to the knowledge of musical fundamentals, and try to draw the necessary conclusions for all particular cases by ourselves.

To sum up briefly.

The problem of musical notation is the most important problem in music to-day. On its satisfactory solution depends the progress of music, despite the fact that the majority of musicians desperately seek to prove that it is not possible, and not even desirable.

## SOME PRACTICAL EXAMPLES

### TRANSPOSITION

**A very simple example is taken, with the occurence of only one sharp, one flat, and two naturals. The proficiency in transposition, which took years to learn, can be acquired by anyone able to read the new notation, almost immediately.**

## MODES

A set of consecutive notes (line — space — line etc.), but with different intervals, written in the old manner by use of accidentals or different clefs, as compared with the same, but written in notation Godjevatz.

## DIFFERENT ENHARMONIC NOTATION

The example is taken from Chopin's Etude op. 25 no. 9, as it is in the original edition (G-flat) and the one in von Bulow's transcription (F-sharp).



We shall repeat the same example in Notation Godjevatz, applying for the use of accidentals the same procedure as in the old notation

### TRANSCRIPTION OF FORMER MUSIC

But, as we have in the Notation Godjevatz space for every tone, we shall write it accordingly. This gives us the key of transcribing the whole of published music, if we wish to keep the intentions of the composer unchanged. It will be noted that the tones are written as they actually sound, so that a performer can eventually neglect the meaning of accidentals; not to his advantage, of course.

Only the function of the accidentals is reversed. By it we are not compelled to calculate where the tone actually stands, but where its origin is. The sharps denote that the original tones (altered tones in the old sense) lie below them, and the flats above.

Here is the same example without any accidentals, written on superposed staves.


TRANSCRIPTION OF ORCHESTRAL SCORES.

At the end is the transcription of a modern score, a page from Stravinsky's "Sacre du Printemps". (With the permission of Edition Russe de Musique, Paris.)

A score can be transcribed in three ways, which is the result of the possibility of superposition of staves.

In the original we have 4 clefs, 6 signatures, 8 transposing instruments, 8 additional sharps, 133 additional flats, 2 additional double-flats and 52 additional naturals. And all for one page of a score, six bars.

# TABLE OF INTERVALS

| SYSTEM GODJEVATZ Sign | Name | OLD NAMES | | | |
|---|---|---|---|---|---|
| 0 | in-zero | perfect | prime | diminished | second |
| 1 | in-one | augmented | prime | minor | second |
| 2 | in-two | diminished | third | major | second |
| 3 | in-three | minor | third | augmented | second |
| 4 | in-four | major | third | diminished | fourth |
| 5 | in-five | augmented | third | perfect | fourth |
| 6 | meze | diminished | fifth | augmented | fourth |
| 7 | in-seven | perfect | fifth | diminished | sixth |
| 8 | in-eight | augmented | fifth | minor | sixth |
| 9 | in-nine | diminished | seventh | major | sixth |
| X | in-ten | minor | seventh | augmented | sixth |
| Ɛ | in-eleven | major | seventh | diminished | octave |
| 10 | homosonance | augmented | seventh | perfect | octave |

# COMPARATIVE CHART

**The number of different enharmonic notations for the same tonal fact, which is written in Notation Godjevatz in only one way.**

**SCALES:**

| | |
|---|---|
| pentatonic | 243 |
| whole-tone | 729 |
| diatonic | 2 187 |
| chromatic | 354 334 |

**CHORDS**

| | |
|---|---|
| triad | 27 |
| ch.of the seventh | 81 |
| ch.of the ninth | 2 43 |
| ch.of the eleventh | 729 |
| ch.of the thirteenth | 2 187 |

**SUCCESSIONS OF TWO CHORDS**

| | |
|---|---|
| triad-triad | 729 |
| " -ch.of the seventh | 2 187 |
| " -ch.of the ninth | 6 561 |
| " -ch.of the eleventh | 19 683 |
| " -ch.of the thirteenth | 59 049 |
| ch.of the 7th-ch.of the 7th | 6 561 |
| " -ch.of the 9th | 19 683 |
| " -ch.of the 11th | 59 049 |
| " -ch.of the 13th | 177 167 |
| ch.of the 9th-ch.of the 9th | 59 049 |
| " -ch.of the 11th | 177 167 |
| " -ch.of the 13th | 531 501 |
| ch.of the 11th-ch.of the 11th | 531 501 |
| " -ch.of the 13th | 1 594 503 |
| ch.of the 13th-ch.of the 13th | 5 783 509 |

**SUCCESSIONS OF SEVERAL CHORDS**

| | |
|---|---|
| 3 triads | 19 683 |
| 4 " | 531 501 |
| 5 " | 17 350 527 |
| 6 " | 468 464 229 |
| 3 ch.of the 7th | 531 501 |
| 4 " | 52 051 581 |
| 5 " | 4 216 178 061 |
| 6 " | 341 510 422 941 |
| 3 ch.of the 9th | 17 350 527 |
| 4 " | 4 216 178 061 |
| 5 " | 1 004 531 268 823 |
| 6 " | 248 961 098 323 989 |