

MARCOTONE NOTES – KEY CONCEPTS by Ezra Sandzer-Bell

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I. INTRODUCTION

- Automatism – Function creates the organ
- Parallelism between sound and light – “a parallel series of different scales of magnitude”
- Study life through vibration, which develops into spirals through oscillatory periodic motion
- LIFE sets up connection between two series of phenomena which appear as complete strangers to one another.
- “In this elementary course of Marcotone, it is not consistent with its purposes to set forth in detail the mathematical and other precise formulae which were necessary for its establishment as the science of Tone-Color
- Number is the universal ideographic language, being the source of cosmic, religious, and scientific symbolism. The Symbolism of Number, expressed, becomes the Law of Motion, generating space and producing life in all its forms.
- Silence decomposed through number is sound, the source of spherical and human music.
- Geometry is created by sound (CYMATICS):
 - Simple experiments, proving such to be a fact in nature, are those geometrical forms obtained from Lycopodium spores under the influence of a series of isochronous harmonics. These spores placed on a drumhead and set in motion form geometrical designs correlated to the harmonics from which they are generated.
 - Vibrations of steel forks of fixed pitches, when shown in shadows cast into mirrors, form patterns which can be thrown through a lens upon a screen and the invisible tone thus becomes visible, as perfectly ordered geometrical figures.
- Motion, as numbered vibrations, governs all systems of Life, its variety in velocity causing differences in the physical aspect of its material composition.
- Sound paternally fosters light. Nature proceeds to energize the universe as zones, octaves, or spirals of motion.
- “Sound and light are identical except in the length of their waves and the nature of the media which acts as their carriers.
- Melody controls comparatively all vocal and instrumental music. The melodic line governs the world’s present day music.

II. Part 1: Marcotone the Science

- **MARCOTONE** from Sanskrit
 - Ma – to measure
 - R – raga (by scaling)
 - Co – color
 - Tone – pitch
- **Chapter 1 – Principles of Marcotone**

- Vibration is the universal Law
- Apperception (conscious) of vibration as light waves, forced upon the mind of Man as color and form through the development of the organ of seeing.
- The same mental faculty which deals with the phenomenon of Light can be utilized in the element of air through the organ of hearing. It is the same faculty which pertains to both phenomena.
- Natural causes during vast periods of time evolved the subconsciousness to the point of willing color and form before the human mind.
- The normal mind does not perceive the precise movements of tonal pitch, which between air, ear and mind, are equivalent to ether, eye, and mind.
- That which has developed one natural phenomenon subject to vibration will develop the other.
- ONE PRIME CAUSE – color is a natural, spontaneous and involuntary act. Tone is governed by the same prime cause and can become one and indivisible with Color.
- **Chapter 2 – Absolute Pitch; Consciousness of Tone**
- Fundamental tone 256 – root of the “Natural Octave” because an open pipe of 26 inches in length executes 256 vibrations termed middle C in a second of time. It naturally formed a 52 inch sound wave. *To compute the velocity of sound, it is then necessary to multiply the number of vibrations (256 hz) by the length of its sound wave (52 inches), obtaining as a result the speed of 1,120 feet per second.*
 - EZRA NOTE: **Maryon’s math is flawed.**
 - 1,120 ft per second must first be converted to inches.
 - **1120 (ft) x 12 (inches) = 13,440** inches per second
 - 256 Hz x 52 inches = 13312 inches per second
 - **256 Hz x 52.5 inches = 13,440** inches per second
 - 13,440 inches = 1,120 ft per second
 - Interestingly, Maryon’s *Tone-Color chart on page 38* includes wavelengths with decimals, reducing the likelihood that Maryon was rounding down to the closest whole number.
 - Is he a poor math student?
 - Is he concealing the true math from the profane?
 - Is the use of number 256, 52, and 1,120 some kind of esoteric password?
 - There might be a case for the last proposition.
 - $256 = 4^4$
 - $2+5+6 = 13$ ($1+3=4$)
 - $52 = 13 \times 4$
 - $4 \times 4 = 4^2 = \text{Four Squared (Symbolic Language)}$
 - $1,120 = 70 \times 4^2$
 - $1,120 = 1+1+2+0 = 4$ (with four digits)
 - The number four symbolically represents square temperament, which Maryon encourages repeatedly throughout the course of this text (eg. “Emotions have no place in the process of visualizing” – pg. 86)
 - This kind of coded math is possible, but seems to be contradicted by an excerpt on page 29, third paragraph:
 - Talking about the imbalanced layout of piano keys (7 white and 5 black)

- “Could anything be more confusing to a true harmonical realization of Music? Of course, as these and other errors were formed on false conceptions, and which in the course of several centuries have become traditional, they remained undiscovered by the general public; but this same public, nevertheless, suffered the consequences of ignorance; for ERROR CREATES CONFUSION. Because it has not seen the truth, the difficulties caused by false conceptions, as a necessary evil to artistry, enveloped (PAST-TENSE) music-study. How long are we going to work hard through error when natural law shows us an easier way towards our ideal?”
 - Ends with the statement “It takes man to discover and become fully alive to natural law, for Truth is hard to find; but having found it, all things human are made easy; because WHEN truth alone informs man’s works, both he and his labors become divine, and mortal becomes immortal.”
 - We are now faced with a question. Is Maryon intentionally tricking us in order to separate the true seekers from those who engage in memorization? Later on in the text, he shows distaste for music compositions learned by rote.
 - “Most of us, even professional musicians, depend entirely upon the aid of some sonorous instrument for an exact impression of the sound of a musical composition until it has been learned by rote, as the parrot learns to say ‘Pretty Poll!’”
 - “Do we learn to see a new painting? No.”
 - In conclusion, it seems unlikely that someone who is publishing a book would make an error as blatant as is the case of the 52.5 inch wavelength, particularly when they have gone through the trouble of calculating the wavelength/tempered pitch correspondences for all 12 chromatic tones. If Maryon’s math was flawed, would his publishers not have caught the error? However, as we come to realize that none of his work is published in this edition, it becomes apparent that he may have simply been a poor math student. Many of the scientific claims which he states as absolute truths are not supported by modern physics, such as the idea that sound and light are identical vibrations traveling through different mediums.
- Moving on...
- Therefore, having once mastered the middle or natural octave, our command over these raised or lowered octaves is now a permanent superstructure of our subconscious mind. The crystallization of twelve tone colors is part of the whole of our new and deliberately acquired mental faculty.
- There are twelve fundamental tones – six primes and six complementaries
- “Such a conclusion, borne out of scientific facts, offers no reasonable grounds for argument.”
- The intuitive apperception of color is independent of sense and free to automatically act at the urge of will alone.
- Color is the one and only mentally stable aspect of motion possessed by man, atavistically, whereby to measure speeds of vibration, i.e. we visualize color by an automatic measurement of speeds having for its source our sub-consciousness. The result is consciousness of color.

- Through Master of Marcotone the human race can obtain the same free-will control of tone which it has atavistically over color. (ATAVISM - The return of a trait or recurrence of previous behavior after a period of absence.)
- “Natural Musicians”
- RECAP
 - Tone colors as permanent mental possessions
 - Notation’s dual value in tone and color
 - Spontaneous, natural and involuntary recognition of tone-color
 - Automatic
 - Always think and repeat the name of the color of a note sign, because color is the only natural subconscious power we possess which reveals the exact movements of vibration/motion.
 - Never try to think the TONE of a note-sign. Not possible.
 - The student begins with aids to the meditation, and eventually leaves them behind as they gradually come to rely more upon their inner knowing.
- ***Chapter III – Tone Deafness and its Remedy***
- Most of us are born deaf, and the majority of musicians, despite their erudition and artistry, are musical parrots to the end, victims of tone-deafness. Neither virtuosity of voice or instrument, nor the mastery of harmony, counterpoint, canon and fugue, or any other of the allied musical sciences can give us tone-consciousness.
- To have absolute tone-pitch through Marcotone is to have the power to read and hear understandingly any musical composition precisely as literary works are read and heard.
- The tragic silence of the dead mute is MENTALLY ours.
- By placing in our subconscious mind the absolute pitch of the chromatic scale, we overcome the mental tone-deafness.
- One must FIRST become a natural musician, and THEN an artistic musician.
- Color-thought can recreate itself in co-equal tone through the medium of the voice, twenty-nine or thirty octaves below.
 - EZRA NOTE: Again, this is a misconception. Whether Maryon means that light and sound are scientifically correlated, in the sense that sound waves literally become light waves if accelerated upwards by thirty octaves, we cannot be certain. Modern Physics does not support this claim.
- Marcotone will add immeasurably to the clairvoyance of scientists, painters, writers, and poets.
- ***Chapter IV – The Marcotone Tone-Color Scale***
- Start with C in the Great Octave (64 Hz)
 - Interesting that C(2) as 64 Hz is the beginning of the “Great Octave”.
 - $64 = 4^3$
- Guido d’Arezzo responsible for the arbitrary seven-tone intervallic scale which we have called diatonic.
- Spiral of fifths within an octave.
- Maryon goes into an exposition on the origins of tonality.
 - Greek Music comes from Pythagoras, who learned his harmonic theory from Egyptian priests. These tonal theories belonged to Hermetic philosophers of Osiris, Horus, and Isis. Therefore, it is easy to trace its origin to the Orphic Lyre,

or the “Scale of Orpheus” which tradition says he received from Apollo, his father, the god of light.

- Goes on to explain the derivation of the fifth interval from a monochord.
- The sound obtained by plucking a string was obtained objectively. The objective sound, when the monochord was tuned to C, is complemented by the subjective sound of G or Sol.
- **Note: Error on Maryon’s part**
 - A perfect fifth is said to be the complementary tone. However, the colors which correspond to the complementary tones are not complementary colors.
 - E.g. C = Red and G is the perfect fifth (complementary tone)
 - G should therefore be associated with Green, as this is the complementary color to Red.
 - Instead, G is associated with Green-Blue, a semitone removed from the true complementary tone of F#
 - Oddly, Maryon follows up his description of the complementary tones by an unrelated complaint about the inequality of black and white keys, shifting the blame of his faulty system to the inventors of the piano
- **Chapter V Tone-Color; The Scales of Light and Sound**
- In proceeding upwards - Sharp sign (#) and in proceeding downwards the Flat-Sign (b)
- **Chapter VI Tone-Color; Rules**
- NOTE SIGNS SERVE A TWOFOLD PURPOSE
 - As twelve distinct Signs, for twelve distinct colors.
 - As twelve distinct Signs, for twelve distinct tones.
 - The color of these twelve signs must be thought, i.e. realized by the mind, and not the tone.
 - When a given color is firmly held in the mind, this color is to be turned into its correlated tone by the pupil, that is, the pupil will sing it to the name of its correlated color.
 - The universal process of sound vibrations conforms to a fixed law which in actuality makes an octave circular. Each circle spirally repeats both the color and the tone. The only difference between these circles is that the vibrations intensify, that is, become acuter as they become higher, but the RATIO OF TONE AND COLOR NEVER CHANGES.
 - Note-signs are the symbols for both the tones and the colors.
 - When there are two-worded names for the tone color, use for example, in ascending the scale, the order: yellow-green, and in descending: green-yellow. This order applies equally to all two-worded tone-colors.
- **PART TWO - SKIPPED OVER - PLEASE READ MARCOTONE FOR DETAILS ON HOW TO CONDUCT THE MEDITATIONS, AS A SYNOPSIS WILL NOT SUFFICE. EACH STEP IS EQUALLY IMPORTANT.**
- **PART THREE - MARCOTONE IN RELATION TO LIFE AND ART**
- **Chapter XIX - Musical Proportions in Philosophy; Science; Art**
- Absolute system of Geometry evolved from musical proportions (See Plato’s Timaueus)
- “Nature is sure to act consistently and with a constant analogy in all her operations” - Pythagoras.

- “From whence I conclude that the Numbers, by means of which the agreement of Sounds affects our ears with delight, are the very same which please our eyes and our mind [tone-color-numbers]. We shall therefore borrow all our Rules for the finishing our proportions from the Musicians, who are the greatest masters of this sort of Numbers, and from those particular things wherein Nature shows herself most excellent and complete.... The harmony of the Ancients gathered from interchangeable concords of the Tones, by means of certain Determinate Numbers...”
- The author of Marcotone has followed the law of life governing his system, through Italy, Greece, and Egypt, **to its source, deeply implanted in the cradle of the Aryan race, India.**
EZRA NOTE: Theosophical influence appears to leak in at this point
- We know that Color and Number are ours subconsciously through atavism. We know that Tone and Number are NOT ours subconsciously, yet the universal principles upon which Marcotone is founded will forever afford us this *Natural Key* to another and higher realm of the Infinite.
- **Chapter XX - Vibration or Motion**
- *Vibration or Motion is the source of cosmic manifestation and the principle of such universal powers as EXTENSION, SPACE, FIGURE and TIME. Therefore, when that cosmic principle is limited, its universality, which otherwise makes it incomprehensible to mortals, can be understood, reasonably studied and utilized.*
- Nature has produced only noise. It has remained for science and art to produce Isochronous musical tone
 - Isochronous - Iso (Equal) and Chronous = Chronos (Time)
 - Marcotone is intended to activate the WILL and free listeners from a purely sensual experience of music.
- **Chapter XXI - Melody; Visualization; Harmony**
- Mastery of Melody can be obtained only in the complete absence of conscious effort.
- There must be no resort to intervallically or harmonically induced formulae.
- The power so derived by Marcotone studies can be applied directly to our general music studies, thereby raising the whole structure of musical art from the existing plane of erroneous routine to the zenith of subconscious attainment
- We use the term visualization in the sense of photography (to describe the process of learning a melodic line). We photograph the musical phrase so that it becomes a picture or the mental vision.
- Avoid any suggestion of intervallic measuring.
- Emotions have no place in the process of visualizing
- The measure or phrase must be calmly looked at, mechanically photographed onto the brain. No thought whatever may be employed by the student. Nothing more, nothing less.
- Close your eyes and see if the picture has been recorded in the mind's eye.
- Memorizing and sight-reading depend on the possession of automatic absolute pitch.
- When reading a musical phrase...
 - Think the colors correlated by the tone-symbols.
 - Singing tone-color names for the notes.
 - Singing the tones of the note-signs.
- Memorizing Harmony...

- Hum the tones of single chords, singing upwards in arpeggio form, not from the printed page but from the visualized picture of the chord as a unit, vertical in form and not as a horizontal melodic line.
- Eventually the mental visualization and hearing will become an automatic function.
- Surer results are obtained in all these studies if the student begins with simple compositions. More rapid and thorough attainments are to be won by systematic and natural advance through progressive grades of difficulty.
- We hear the expression “ear-training” freely used. There is no such thing. The ear cannot be trained to do work destined by nature for EYE and MIND. We train the MIND to use the ear. Whatever the eye can convey to the brain through its photographic lens, the brain can realize automatically.
- Science can never directly advance the emotional and spiritual splendor of the mind. That is the divine function of philosophy and art. Yet these without the foundation and environment of science, are insecure and incomplete. Must be combined.
- ***Chapter XXII - How to hear music; Musical Dictation; Composition***
- For many, music is a mere sense-perception in which the mind is not involved. The primitive sense perception has been blindly held to constitute all there is to music.
- Three effects should be obtained simultaneously during music dictation
 - The pupil will see the colors
 - He will hear the tones
 - He will visualize the notes
 - He will say the color names
 - He will sing the tone-pitches
 - He will write the note signs
- A patient, progressive course must be followed for the successful development of Marcotone skills.
- Upon successful attainment, Marcotone will permit us to freely play with music via WILL, hence natural musicianship.
- The student should:
 - Listen to Nature in all her various forms.
 - Listen to Artifice (engines, forge, hammer, boiler, car)
 - Listen to Human Voices
 - Correlate outer sounds with the inner being. This will give you wisdom and make you a worth interpreter of abstractions and emotions through music more surely than can be realized in any other domain of endeavor.
- As a composer, you may now inscribe to your fellows a song of the infinite!