sciendo
DOI: 10.2478 / rae – 2022 - 0006 Review of Artistic Education no. 23 2022 47 - 52

# 6. FROM MUSICAL PSYCHOLOGY TO HUSSERLIAN PHENOMENOLOGY TO SCHENKERIAN ANALYSIS

**Iulian Rusu**[24]

**Abstract:** *This study is written at the suggestion of Master Octav Calleya, a disciple of Celibidache and Franco Ferrara, who addresses those passionate about Musical Phenomenology and Acoustics. It is not very technical, it is more an introduction to the "roots" of this scientific approach to music imposed by Celibidache, which can be an open gate for those who want to enter this vast universe of knowledge.*
**Key words:** *analysis, acoustics, musical phenomenology, psychology*

## 1. Introduction

Psychology, as a scientific branch of philosophy and metaphysics in the 19th century, through experimental research methods based on the progress made during that period by the three main branches of nature science: physics, chemistry, and physiology, has the primary merit in sound research. But the most important aspect was"... Determining sensations, including the audible ones, means knowing the simple elements underlying the psychic phenomena involved in the study of basic elements and in the knowledge of the laws after which the superior psychological processes are carried out: memory, thought, affectivity and will..." (Constantin A. Ionescu, History of musical psychology, Musical Publishing House, Bucharest 1982, pg. 9-10.) In the German area existed a special concern in the field of sound research and hearing physiology, and in 1879 the first experimental psychology laboratory was established in Leipzig. I will bring to the foreground some names of researchers and titles of works in the field of musical acoustics and physiology, which can be a study material for those interested in penetrating the noise phenomenon, as a preliminary step in understanding the roots of the musical phenomenology imposed by Master Sergiu Celibidache, but very little understood by most of his disciples.

## 2. Discussions

Herman von Helmholtz (1821-1894), the founder of the musical physiology. In 1863 he published a series of results of the researches in field of acoustic and musical physiology *Die Lehre,von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik,* (*Teoria senzațiilor tonului ca bază fiziologică pentru teoria muzicii*), compendium with everything that was most important to know from Pitagora to his personal research in the field of musical acoustics and physiology. His work will include analyzes of harmonic sounds, the effects of the hearing on the emission of two simultaneous sounds, the study of chords, the construction of scores and modes from a historical perspective. He

[24] Associate Professor PhD., "George Enescu" National University of Arts from Iaşi, Romania, email: iulian208@yahoo.com

explains his statements with mathematical proofs to the physics and mathematics connoisseurs. He gives the definitions of sound qualities that are valid today, he sets the standard sound height at 440 d.s. in 1872 (double vibration per second) proposed by Scheibler adopted by the Congress of German physicists in 1834. He also formulated the first physiological theory on hearing, the theory of resonance and the theory of sound mass.

Wilhelm Wundt (1832-1920), the founder of the German experimental musical psycho-psychology was, among other things, Helmholz's assistant. In his work *Grundzüge der Physiologischen Psychologie* (*The foundations of physiological psychology*), he presented, among other things, his concept of musical hearing psychology, analyzing the origin and general properties of the intensity of the sensations. He develops theories on the propagation of the sound in the air, the purity of the harmonic intervals according to the coincidence and uncoincidence of harmonics and on sound sensations and auditory performance. He classifies the intervals by degree of closeness in three groups based on sound harmonics.

Franz Brentano (1838-1917) is the author who rediscovered the problem of intent in contemporary philosophy and psychology. His fundamental work is *Psychologie vom empirischen Standpunkt* (*Psychology from an Empirical Standpoint*), an opera whose subject was a major source of inspiration for the philosophical concept of Husserl's phenomenology. For Brentano, "the word empirical meant sensory experience with an emphasis on activity." He considered that a particular experience should always be directly linked to a particular subject. He also considers that the object of the psychological act and the whole world of our phenomena (*unserer Erscheinungen*) is divided into two major classes: the class of *physical* phenomena and the class of *psychiological* phenomena. In Bretano's opinion, all that is not a psychological phenomenon is a physical phenomenon, which would lead to the thesis that representation is a physical phenomenon. If this consequence is intended to be rejected, as unpleasant, and the representation was intentional, it results that we must accept the existence of psychological phenomena which are not intentional.

Carl Stumpf (1849-1936) is the founder of musical psychology, which is seen as a new field in general psychology. His work *Tonpsychologie*, written in two volumes, it is one of his most representative works. He started his research on the ideas of the Viennese philosopher and psychologist Franz Brentano. The first volume, interesting for musicians, is devoted to the judgment of the musical sound, the analysis of the appreciation of the successive sounds, the dissonance and consonance of the feeling of pleasure from a historical perspective, the notion of sound connection and the fusion of the simultaneous tones and the impression these give on human consciousness. "Stumpf has the merit of having been the zealous defender of psychological principles, because art has no meaning to exist without its connection with human consciousness," (Constantin A. Ionescu, History of musical psychology, pg.133). I have made a concentrated exposure in which I tried to outline a unified concept of the fact that musical psychology is a branch based on scientific experiences of general psychology, because it is based on objective

phenomena that were the subject of the research. The four fammous names of psychologists and their works are almost unknown to practitioner musicians, either instrumentalists or conductors. Stumpf was one of Edmund Husserl's teachers, the founder of phenomenology, who, under his coordination, in 1887, sustained his seniority work (*Habilation*), entitled *On the concept of number*.
Stumpf also influenced Eduard Spranger, a professor at Friedrich-Wilhelm University, whose philosophical lectures were heard during his studies in Berlin by Sergiu Celibidache.

## 3. Results

Emund Husserl (1859-1938), is the founder of phenomenology. He initially studied mathematics in Leipzig and Berlin. In Vienna, he heard Franz Brentano's courses, and under his influence he decided to study philosophy. In 1887 he sustained his seniority work (*Habilation*), entitled *On the concept of number*, as we have mentioned earlier, under the coordonation of Carl Stumpf. After the publication of his first significant work, the *Philosophy of arithmetic*, Husserl is devoting his efforts to the development of phenomenology, a new discipline that must fulfill the old ideal of philosophy as rigorous science. The term phenomenology was officially stated for the first time by Johann Heinrich Lambert, in the 18th century, and later used by Immanuel Kant and Johann Gottlieb Fichte, and especially by G.W.F. Hegel in his work *"Phenomenology of Spirit"* in 1807. To varying degrees, René Descartes' methodological scepticism, the british empirism of Locke, Hume, Berkeley and Mill and the idealism of Immanuel Kant and the German idealists all contributed to the early development of the theory.

From an ethimological point of view, the term phenomenology is derived from the Greek word *„phainomenon"*, meaning *„aspect"*. Phenomenology studies the structures of conscious experience by combining empirical and rational knowledge, then giving it a new rating by means of phenomenological intent. It means that the volitional act can form the cause of experience awareness. The phenomenology, as it is known today, however, is essentially the vision of Edmund Husserl, which he stated in his work *"Logical investigations"* in 1901, although credit should also be given to the pioneering work on intent (the idea that consciousness is always intended or directed) of Husserl's professor, the German philosopher and psychologist Franz Brentano and his colleague, Carl Stumpf.

Ernest Ansermet (1883-1969) is the author of the work *Les Fondements de la Musique dans la Conscience Humaine.* In his work, the great theorist and conductor intends to approach music entirely through physiology, mathematics, philosophy, and history - among other things. The work was born of Ansermet's discovery of the secrets of phenomenology through Husserl's writings, which constituted a real revelation for him. After the deep study of the philosophical concept, stated by Husserl in *Ideen*, he became a ruler of the instruments of phenomenology. Following this revelation, Ansermet developed a completely new, own concept of approaching music.

The author of the work *The foundations of music in the human consciousness* defines it as a phenomenology of music or, rather, a phenomenology of musical

auditory consciousness; that is “bringing to light the phenomena of consciousness related to the occurence of music in sounds “. According to him, the phenomenological approach to hearing awareness, and only it, enables us to truly understand the musical phenomenon and avoid errors such as atonality, which he does not hesitate to call an aberration, born of the complete ignorance of this phenomenology. In the first part of the work, *Constiinta auditiva si constiinta muzicala*, Ansermet demonstrates that the evidence of the significance of music - in other words, which makes it address directly to the listener's feeling rather than to his mind - passes through his listening to a certain tonal law. Starting from the statement that the human perception of intervals is logarithmic (respectively, between two sounds the ear does not perceive the difference in their frequencies or the ratio of their frequencies, but the logarithm of this ratio), he dedicates, at the beginning of his book, many pages to express the logarithm of the fourth and fifth, depending on the logarithm of the octave, fundamentally judging the division of the intervals into the same system. The second part, *The historic creation of music in empirism,* offers a new approach to music history in the light of what has been previously established. Finally, we can say that Ansermet's work tends to answer a question, which is apparently both simple and fundamental, existential for him: "What is music”?

It was Heinrich Shenker (1868-1935) who laid the foundation for the most elaborate and original method of analysis in relation to the mechanism of creation of a musical work. He manages to argue through his analytical system that there is a certain type of common structure behind musical creations of tonal type, from Bach to Brahms. Later, some of his disciples took his analytical concept further, extending the analysis to medieval music and 20th century music. His analysis system focuses on the horizontal dimension of the musical composition, based on tracking the line of the voice mouvement from the counterpoint perspective. To be able to assimilate the system imposed by Schenker, it is necessary to start with a two-voice counterpoint study, without the involvement of harmony in the first phase. In tonal written works, the movement of voices is conducted gradually, similar to the movement of voices in the counterpoint specialties. Knowing the five species for treating and conducting the voices from the counterpoint perspective is very necesary.

It is only then that the role of harmony can be analyzed. In the schenkerian analytical system, from a harmonic point of view, large sections of the music track are analyzed. It is not just about individual chords. The musical work is carried out in a single tonality from his point of view, with the "tonicization" process conducted within it (Tonikalisierung), which stabilizes a temporary tonic triad and leads to the formation of coherent and organic characteristics in the interactions between the surface layer and the depth structure of the musical composition. The basis of the harmonic progress in his system is represented by the relationships I-V and V-I. On the other hand, the nature and quality of the musical sound with its series of harmonics from which all the intervals, scores and basic structures of music are formed provide a starting point in strengthening the Shenkerian analysis system. In his analysis system, the theory of structural levels is a defining element

in the discovery of the idea of structure that encompasses the fundamental melodic line, the fundamental structure and, ultimately, the concept of "layer" (Schicht). (Ursatz) "the fundamental structure", the most important concept of his theory is the final phase of successive reductions in layered analysis of the tonal musical composition.

In graphic form, it is played back as a counterpoint unit to two voices where the melodic and harmonic movement of the work, the upper voice (Urline) and lower voice (Bassbrechung) are inserted. Three layers, each with its own characteristics, are imposed by Shenker in analyzing a musical work: "The surface layer" (Vordergrund), "The middle layer" (Mittelgrund), "The depth layer" (Hintergrund). The first layer resembles the play. The elements of the counterpoint drawing can be identified immediately and is the only rhythmically determined layer. The second in the middle may contain several intermediate layers depending on the complexity of the musical composition and the degree of detail of the analysis in which none of the details of the surface layer is found. The last layer considered as primary of the play is expressed by the fundamental structure. This analysis is carried out as a process in the reduction phases. The layers will be understood as polyphonic reductions in steps of the surface layer, itself a first reduction of the play.

These layers shall be arranged in the analysis above each other, displayed on a single portable as follows: Ursatz sometimes depends on the complexity of the work, 1 portable for the first layer (Schicht), 2 portables for the second layer and 2 portables for the third layer (Schicht). The particularization of the analysis required by Shenker, which is very complex and complicated at the same time, cannot be contained in the space allocated narrowly. I have tried to cover the essential elements of the Shenkerian analytical system without going into the details of the deep analysis and specific terminology required by the author. Deepening this type of analysis requires a thorough study, a thorough knowledge of counterpoint, harmony, shapes. Also, gaining a skill for the application of the techniques for drawing up the schemes and graphs for overlapping the layers. This type of analysis is already well known and integrated into all music sciences. The Shenkerian analytical stratification is evident in the analysis of the protesting coral on several voices, considered by Shenker as an ideal model of simple melodic exposure and through the uniform weave, in equal values, which defines it.

It has a small shape with a harmonious density with harmonic changes almost every time of a measure, the narrow melodic density in which Shenker observed that it is like the type of reduction possible to be applied to any tonal musical creation, however sympathetic it may be. As we know, and have previously reported, that the nature and quality of the musical sound with its series of harmonics, from which all the intervals, scores and basic structures of music are formed, provide a starting point in strengthening the system of Shenkerian analysis. But this is not a novelty discovered and imposed by Shenker.

## 4. Conclusions

I conclude this brief presentation, about a very complex research area,

during which I tried to enter the universe of knowledge and roots that led to the development of the concept of *Musical Phenomenology* promoted by the conductor Sergiu Celibidache. In conclusion, I can say that it is a very broad research topic, an accumulation of theoretical musical, philosophical and scientific, physical, acoustic, and mathematical knowledge, areas with a much too wide range of coverage that are not easily accessible to anyone. It is understandable that Master Sergiu Celibidache considered the German music school the best in comparison to the non-existent schools in the world, from which he learned and developed a unique system of musical interpretation based on phenomenological analysis. "...All my strength is in the ability to explain according to the musical grammar, which I know perfectly (and which everyone ignores), all the possibilities and susceptibility of the musical tissue..." (Sergiu Celibidache, *Letters to Eugen Trancu-Iaşi*, Eikon Publishing House, Cluj-Napoca, pg.63.)

## References


1. Boboc, Alexandru - "Filosofia contemporană" Editura Didactică şi Pedagogică, Bucureşti 1980
2. Brentano, Franz, Psicologia dal punto di vista empirico, trad. di G. Gurisatti, Trento, Luigi Reverdito Editore, 1989, vol. I, libro II, cap. I
3. Celibidache, Sergiu, Scrisori către Eugen Trancu-IașI, Editura Eikon, Cluj-Napoca
4. ENTREVISTA DEL MAESTRO SERGIU CELIBIDACHE - Texto extraído de una emisión radiofónica de France-Musique en París Septiembre de 1986
5. „Franz Brentano - Reperele unei biografii. Interviu cu Wilhelm Baumgartner", în I. Tănăsescu, Principiul intenționalității la Franz Brentano, Ars Docendi, București, 2004
6. Husserl Edmund - "Meditaţii carteziene", Editura. Humanitas, 1994
7. Husserl, Edmund - Idei privitoare la o fenomenologie pură şi la o filozofie fenomenologică. Cartea întâi (I) [Idei I]: Introducere generală în fenomenologia pură/ Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy - First Book: General Introduction to a Pure Phenomenology, Bucureşti: Humanitas 2011
8. Ionescu, Constantin A., Istoria Psihologiei Muzicale, Editura Muzicală, București 1982
9. Lyotard, J.- La Phénoménologie/ The Phenomenology. Paris, Presses universitaires de France 1954
10. Phenomenology, Logic, and the Philosophy of Mathematics. Cambridge and New York Cambridge University Press 2005
11. Ricoeur, Paul - Eseuri de hermeneutică, Editura Humanitas 1995
12. Ricoeur, Paul - Conflictul interpretărilor, Editura Echinox 1999
13. Smith, David Woodruff, and Amie L. Thomasson, eds. 2005. Phenomenology and Philosophy of Mind. Oxford and New York: Oxford University Press
14. Urmă, Dem Acustică şi Muzică, Editura Ştiinţifică şi enciclopedică Bucureşti - 1982