ASPECTS OF PIANISTIC TECHNIQUE IN ROMANIAN WORKS OF THE 20TH CENTURY

NELIDA NEDELCUT¹

Manuscript received: 10.04.2011. Accepted paper: 11.05.2011.

Published online: 10.06.2011.

Abstract. In the Romanian 20th century music the pianistic technique is approached under various aspects and treated as a primary request facilitating the gratification of certain expressive needs. Composers gave up on the traditional ideal of cultivating a round, no roughness pianistic sound and embraced the aesthetic principles of universal contemporary music. A proof in this respect can be found in the works where, in order to create the artistic image of every detail, a very judicious choice of tone and the cultivation of extra qualities are necessary: malleability and multi-direction of the pianistic apparatus. In this article we refer to the requirements of conceptual-stylistic knowledge of the interpreter, as well as clarifications on the notational system used by the authors.

Keywords: pianistic, technique, notation, attack, pedal

1. INTRODUCTION

The pianistic creation of the 20th century, by the numerous techniques used in order to obtain various effects, gives any interpreter intense preoccupation. Starting from the arsenal of basic elements accumulated along the past centuries, the 20th century Romanian scores also began to use elements of subtle differentiation of attacks, different ways of execution, thus creating possibilities of highlighting the new sounds [1].

In a noteworthy treatise on pianistic technique the musicologist Theodor Bălan [2] emphasized that the interpreters were striving to obtain "a timbral variety as wide as possible" and showed that they have foreseen an extremely complex instrumental technique in the music of the 20th century, which required an enrichment and a rephrasing of the traditional pianistic technique: "we have reached the moment of the creation of a new contemporary expressionist pianist in the pianistic typology, illustrating the extraordinary diversity of instrumental methods."

Trying a systematization of the execution procedures (on the piano) present in the contemporary Romanian score, we need to delimit the main areas of the piano to be used:

the keyboards of the piano; parts in the interior of the piano (strings, resonator, metallic parts); parts on the exterior of the piano (front lid of the piano, wood at the end of the keyboards, back lid of the piano, music stand etc.); pedal system.

Sounds can be differentiated according to the instrument used to act on the piano (graphically represented by signs):with the hand – closed (laterally, diagonally), open (or perpendicularly on the direction of the keyboard); with the edge of the hand; with the palm of

¹ "Gheorghe Dima" Music Academy, 400079, Cluj-Napoca, Romania. E-mail: nedelcutn@yahoo.com

the hand; with the fingertips; with the fingernail; with the second phalanx of the fingers in a closed fist; with the fist; with the elbows; with the shoulder [3];

b) indirectly, by using instruments: (noted with the same symbols by most composers)

- wooden wand (■)
- felt wand ()
- metal wand (♦)
- steel little broom (*)
- rubber, little stones, glass pieces, metallic elements (nails, screws, wire, blade).

The basic elements of traditional pianistic technique, including the ways of attack, coexist with new techniques of action on the instrument in 20th century music. However, their detailed presentation in the works of Romanian composers is certainly necessary.

2. TECHNIQUES OF ACTING ON THE KEYBOARDS

The keyboard represents the central point of the musical discourse, although the touch doesn't represent the same notion as it did in the past centuries (when the care for obtaining pleasant sounds was the most important). The roughness of the attack sometimes completely corresponds to the new aesthetic categories and the composers ask for a large number of touches from the interpreter, variating between extreme nuances. Ex. Vlad Opran in *Preludes for piano* asks for *lucent touch with slightly touching the keyboards*. The effect has to be *ethereal, airy* like a... *halo*, or indications of *crystal, ethereal piano, legatissimo* as a *gamelan* in pianissimo, dynamic contrasts between pianissimo and fortissimo, where the sound has to be hit like a *flash*.

We present other ways of touching the keyboards:

- *silently* touched:
- silently and energetically touched (Stefan Niculescu *Triplum II*);
- *mutely touched*, the hammers not touching the chords (Eduárd Terényi *Pianistic games*);
- wiped, with a completely relaxed hand (Aurel Stroe Music for a *Concert for piano*, percussion and brass);
- percussed, with the fingers in the air (Vlad Opran *Preludes for piano*).
- We can also mention the innovative technical indications joining the timbral requirements:
- strings of chords with *clenched fingers* (Eduárd Terényi *A la Strawinski*)
- *karate* hit on the keyboards (Vlad Opran *Time without time*)
- rolling of the hand from low to high register (Aurel Stroe Music for a *Concert for piano*, percussion and brass)
- to be played *percussed*, with the fingers *very lifted* (Vlad Opran *Mechanical games*).

We can thus conclude that: determined by the tendency of the composers to cultivate various sounds, the interpreters will make a mutation of the concept of pianistic "touch", foreseeing a much more varied embracing of sounds in the typical sphere. "We can say that the most beautiful sound is the one that best expresses the content, the artistic image" [2] so the intention is not to obtain a *standard* sound, like the ones which are bright, soft, enveloped etc.

We intend to enter the area of attack ways used by Romanian composers, approaching them from the traditional perspective, as well as from the point of view of the new ideas.

The legato, born out of need to offer continuity to the melody and executed with some difficulty on the piano (unlike on the string instruments, where it is easily executed with the help of the bow); pianistic practice has two main gradations of playing in legato:

- poco legato, which, from a technical point of view, is obtained by active articulation
- legatissimo, a singable legato, where the fingers remain on the keyboards in order to obtain maximum of expressivity and cantability.

The musical writings of the 20th century bring along with several sub-gradations of the legato, also the use of the legato in *atypical* contexts, or its intrusion among other ways of attack. Sounds requested by the 20th century composers (ex. a *clogged, mate, colorless* sound or the opposite – *sounds hit in ff like a flash* – V.Opran – *Preludes for piano*), requested modifications of the pianistic technique and compelled interpreters to invent particular movements and ways of touching the keyboard. For example, in order to obtain the legato by slowly clogging the key and keeping it pressed for a little while the following technique is neded: pushing down the key with the weight of the arm (using a slight movement of the wrist) and an articulation of the fingers close to the keyboard.

The various gradations of the legato will be realized by using the arm most of the times (as much as necessary) in order to counter balance the force of the keys. We mention a few typical aspects in using the legato with its gradations to be found in modern scores: Fred Popovici in *Concentrics* - together with the legato in mezzopiano, he also requests for this manner of execution on parts of strong nuances. Dan Voiculescu in *Neverending songs* and Dora Cojocaru in *Epitaph II* differentiate *legato leggiero* from *legato espressivo*. Alexandru Hrisanide in *Klavierstücke* 1-3 asks for: legatissimo, ben legato, molto legato, legato in crescendo from p-ff. Cornel Țăranu in *Contrasts* considers the legato made by the fingers to be insufficient and requests *legatissimo con pedale*.

Sometimes, along the compositions, the legato is noted in melodic (rhythmic or harmonic) configurations making this request technically impossible to realize. We consider these cases as extensions of the concept itself (of legato), the main understanding of the term being the embracing of sounds in a dynamic, timbral or other type of unity.

It is under the imperative of obtaining a conceptual unity (on different levels) that we have to understand, for example, the passage comprising mixtures of chords (impossibly to tie together with the indication senza ped.) in the work *Klavierstück 1-3* by Alexandru Hrisanide, who notes the indication *legatissimo*.

The opposite of the legato is the non-legato, considered, in the technique of keyboards instruments, the basis of the perlatura. The fingers play an important role in the execution of this request, the rest of the pianistic apparatus having only the role of adding or reducing, by its weight, the intensity and color given by the force of the fingers. Apparently easy, this procedure is conditioned by respecting certain requests in order to create an impression of staccato. For two sounds to be non-legato [4] they "have to be sufficiently distanced (not to give the impression of legato) and sufficiently close at the same time, that is without empty spaces between them (not to give the impression of staccato)".

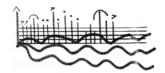
This way we can justify the tendency of composers to replace this term with others, asking for a detached execution of sounds. Among them we mention: articulato with several possible sub-gradations (ben articulato, articulato con suono, articulato semplice), or the term implying the non-legato, marcato. The former is often associated to rough, ample sounds and is sometimes seen as a way of articulating consecutive sounds, in very different situations from the point of view of composition.

Another aspect to be mentioned regarding the legato and non-legato techniques in 20th century music is the fact that the composers don't use them in extended fragments, but rather (combined with others) on few, sometimes isolated sounds. Often a sudden alternation of

e-ISSN: 2068-3049 Arts Section

ways of touching the keys is noticed. The situations where the authors leave to interpreters formerly important parameters (range, duration) but minutely note the technique of execution, show the multiple preoccupations of 20th century composers to diversify sounds, often resulting in solutions validated by time and expressed in novel acoustic material.

Ex. in this respect: Liviu Dandara – Sonata for a single piano:



ways of attack mentioned, free ranges, fluctuating rhythm

Vasile Petculescu – *The hora of the seasons (Suite for children's choir and piano)*



Another possible way of attack is staccato, which, in a traditional understanding, reduces the execution of a sound to half of its noted value and gives it a jolting character, slightly accentuated.

From a technical point of view this effect can be realized by various techniques, implying different uses of the pianistic apparatus:

- with the fingers, by precipitating the last two phalanges of the fingers towards the interior of the palm;
- with the wrist, with two possibilities:
- from the level of the key, by touching it suddenly;
- from a certain height, when one can lift the wrist before the attack;
- with the forearm, with a free or fixed wrist, as the case may be;
- with the entire pianistic apparatus, when the staccato is noted in sounds of f and ff, or in the extreme form of the martellato.

As in the case of legato, the optimal execution of this request is conditioned by dynamic factors of agogics and register. Staccato is easier executed in a slow tempo, where it is easier to obtain the necessary pauses between sounds. Altogether, the scores where it is requested in a fast tempo are not rare, then the pauses shorten and the attention of the interpreter has to aim at not transforming the staccato into non-legato. The highest intensities are optimal for this attack (from mf to ff), as the effect is suited for strong accents. It is difficult to obtain the staccato in p and pp, because of the disagreement between the need to energetically jolt and that of overshadowing the sound. The proper register for staccato is the discant, as it favors the acoustic effects of the mechanism. The base, having more harmonic sounds, prolongs more the sounds, thus resulting in a blurred sonorousness.

In 20th century music, the atypical, unexplored areas of obtaining the staccato will be explored, as it can be seen in the following examples: the composer Dan Voiculescu in the work *Fripta* (no.80) from the cycle *Never ending book* vol. 2 requests: "the chords will be short (staccato) or maintained (tenuto) upper or lower on the keyboards, but also with different intensities: p, f, pp, mf, ff, sfz" and later asks for "sound of choice – piano and staccato" (so independent from register). In the mentioned cycle, this composer also creates various sub-gradations of the staccato:

- quasi staccato: *The sledge* (no.60) and *Dance* (no.67);
- less staccato: *Imaginative piece* (no.75);
- normal staccato, noted with dots or by its characteristic notation.

The composer Eduárd Terényi in *Pianistic games* chooses not to use the signs corresponding to this effect along the composition and even from the beginning of the part entitled *A la Strawinski* he adds to the indication of tempo-presto that of staccato – as a request to evidentiate the character of the work. Another piece from the mentioned cycle, Staccato e tenuto offers the interpreter the freedom of choice (from the musical material graphically suggested), the manner of attack between staccato and tenuto, within the frame of the indications of tempo (from veloce to lento) and nuances (ff-pp) (Annex 1, pag. 124).

Tenuto is often approached as the opposite alternative to staccato, although they often appear in alternation, as in Aurel Stroe's – *Music for a Concert for piano, percussion and brass* and Dan Voiculescu's – *Never ending book*.

In the score of modern music the usual notation of staccato is relinquished, the same effect being created by the indication of shortly or rapidly hit keys, with different technical possibilities and various sub-gradations:

- hit as rapidly as possible (Dan Voiculescu *Sonata no.1 for piano*);
- without hitting them with the entire hand (Dan Voiculescu *Fables*);
- hit the key without pressing it all the way down (Vlad Opran Preludes for piano);
- sound hit in ff like a flash (Vlad Opran *Preludes for piano*).

Another effect to be mistaken for staccato is portato, as from a rhythmic point of view it (generally) also requests the half-way execution of the sound (sometimes it can be more). That is why it is considered a sort of staccato and, from the point of view of pianistic technique, the incisive accent element is eliminated. In portato, the fingers *enter* the keys, they don't attack them (as in staccato per se) and it is executed either with the entire pianistic apparatus, or with certain parts of it.

According to Karl Stockhausen's model, Romanian composers also have preoccupations to differentiate the ways of interrupting contact with the piano, marked by stopping the sound. Thus it is not surprising when composers note the staccato way of attack and the interruption of contact with the keys that precise moment. Solutions can be varied: Violeta Dinescu in *Echoes I for piano* requests: "attack in staccato then the key has to be silently lifted, faintly retaining the echo of the sound". Ştefan Niculescu [5] in *Triplum II for clarinet, cello and piano*: "after the attack of the sound in staccato immediately, silently press the same keys in order to capture the resonance of the strings".

Suitable as an indication to accentuate the staccato, martellato is obtained on the piano by a detachment willingly jolted of the sounds attacked in forte. While most composers treat martellato this way (ex. Alexandru Hrisanide – *Klavierstücke no.1-3*), different situations can be found in this stage of the staccato, too. For example Eduárd Terényi in *A la Strawinski* requests for "martellato without pressing the sound" or limits the sound of the effect by various attacks. In *Cracking noises* from the cycle *Pianistic games* he notes: "martellato by hitting the keys with the fingertips, the sf has to be dosed in such a way as, by a slight hit of the hammers, the strings should resonate, thus, with the help of the pedal, chords are formed from the noises produced" or "martellato by hitting the keys with the four knuckles (2-5). "

3. TECHNIQUES OF ACTION INSIDE THE PIANO

In order to obtain new color effects, the 20th century composers will also act on other parts of the piano, obtaining, by interference of the harmonic sounds, a great variety of timbres.

Analyzing contemporary works where the legends of abbreviations and symbols comprise a division of the areas of influence on the piano (ex. *Kaleidoscope* by Liviu Dandara where the execution is divided in: execution on keyboards and inside the piano), we can say

e-ISSN: 2068-3049 Arts Section

that the exploitation of interior and exterior components of this instrument is an aspiration of the composers, intensely used in order to satisfy the timbral demands.

The interior parts of the piano were the primary focus, used by numerous composers interested in obtaining new sounds. The strings of the piano were initially solicited in different registers (acute, medium, grave) and with multiple possibilities of vibration: by *pinching, hitting or rubbing.* With the conquest of this territory, in pianistic works we will find sounds formerly only partially approached due to the keyboards' restricted possibilities. It is the case of glissando, ornament specific to string instruments with a bow, which, on the keyboards of the piano requests an uncomfortable effort of rapidly passing of one's fingernail (with the thumb or the middle finger) over the white keys, or of the back of the hand over the black keys.

The possibility of obtaining this effect by direct contact with the strings of the instrument will create the need to operate inside the piano, either with parts of the human body (fingers, fist, elbow, arm) or with the help of instruments (wands, sticks, glass). Sometimes composers note the direction in which to act on the strings in producing the glissando: *along* the strings or *lateral* (Liviu Dandara – *Sonata for a single piano*). Glissando can also be differentiated in:

- continuous gliss. (quasi tremolo) executed with uninterrupted movements (from right to left) directly on the strings, in the indicated register Liviu Dandara Kaleidoscope;
- rapid gliss. executed directly on the strings with a wooden wand Ştefan Niculescu Triplum II for clarinet, cello and piano;
- gliss. ad libitum (for 5 seconds) Adrian Raţiu Constellations;
- gliss.with the right hand on the *copper strings* Violeta Dinescu *Echoes I for piano*.

The piano strings can also be hit, stricken, pinched, pressed or blocked. We mention a few examples in this respect:

- press slightly on the strings all the way down: Violeta Dinescu Echoes I for piano;
- *strike* the string with a timpani stick: Dora Cojocaru *Epitaph II*
- grave string, *blocked* with the finger on a determined harmonic, emission with the help of the key: Liviu Dandara *Sonata for a single piano*;
- *pinched* string or combinations of pinched strings: Liviu Dandara *Sonata for a single piano*;
- pizzicato: Ștefan Niculescu Triplum II for clarinet, cello and piano;
- *hits* on the strings (with hand, palm, fist or fingers): Doina Nemţianu-Rotaru *The poppies' crossroad*;
- noises on strings (with paper or maracas): Eduárd Terényi Capriccio for the left hand.

The metallic part of the piano can be a source able to produce unexpected sounds. Various actions can be done here, which, together with other sounds, produce new effects. Ex. of action: wipe the metal parts with a percussion brush: Violeta Dinescu – *Echoes I for piano*.

Above the strings, inside the resonator, there is a section where objects foreign from the piano can be attached (ex. a speaker or spotlights (red, green, yellow) – Liviu Dandara: Sonata for a single piano – or it can be put in "resonance" by various movements: hitting the resonator with the palm of the hand, with the indicated heights: Liviu Dandara – Sonata for a single piano.

In Romanian musical literature there are entire works for piano conceived to be executed on the parts inside the instrument. We mention *Timbres* by Liviu Dandara where the action of the interpreter concentrates on the strings (which can be pinched or slided up and

51

down) and the resonator which has to be hit in various registers. Together with the pressing of the right pedal, these actions will create new effects, not specific to the piano sounds and they are semiographically represented by distinct signs.

4. TECHNIQUES OF ACTION ON THE EXTERIOR OF THE PIANO

The exterior of the piano is approached when it is necessary to create sounds or effects of the same type (in time, they have been replaced by electro-acoustic devices).

With this purpose the following exterior parts of the instrument can be hit (from left to right, upright or downright), slammed, closed or open (with parts of the human body or instruments):

The wood at the end of the keyboard:

- o action with *rubber or felt* on the wood at the end of the keyboard: Eduárd Terényi – Capriccio for the left hand;
- o noises to be made on the wood at the end of the keyboard: Eduárd Terényi – Capriccio for the left hand;

The lid above the keyboard:

- o strongly *hit* the front lid of the piano: Vlad Opran *Mechanical games*;
- o percussion of the front lid of the piano either with the right or with the left hand: Dora Cojocaru – Epitaph II;
- o strikes on the front lid of the piano: Dan Voiculescu The dilettante Mister Goe:
- o accompaniment on the front lid of the piano, with a thin stick: Eduárd Terényi – Capriccio for the left hand;

The back lid of the piano:

- o gliss. on the strings stopped on the back lid of the piano: Eduárd Terényi – Lasciar vibrare;
- o hit with the finger on the back lid: Vasile Herman Sonata II-a for piano;
- strongly *strike* near the music stand: Vlad Opran *Mechanical games*; The lateral parts of the piano (straight or waved);

Near the piano:

o execution with the feet on the pedals or on the floor: Constantin Rîpă – Trio for violin, cello and piano.

There are fragments or even entire works conceived on these areas, without the use of the keyboard, thus proving the tendency of composers to treat the piano as a percussion instrument. For example the composer Eduárd Terényi in Scherzo with intermezzo notes under the title "directions for the actions during intermezzo" the following actions on the front lid of the piano:

- o with a sudden move, slam the front lid of the piano,
- o the interpreter has to uphold in his elbows on the front lid of the piano,
- with a slow, cautious and insecure movement, the interpreter has to lift the front lid of the piano.

The use of all of the parts of the piano: keyboards, interior and exterior shows us that, from the point of view of the 20th century composers, the piano represents a complex acoustic body, able, by its total exploitation, to create multiple sounds and effects similar to those of the surrounding environment.

5. TECHNIQUES OF ACTION ON THE PEDAL SYSTEM

e-ISSN: 2068-3049 Arts Section The use of the pedal in 20th century pianistic art is regarded as a technical means used to renew musical expression. While for a long time the pedal only used at repairing the dryness or shortness of the pianistic sound, starting with the musical creations of the 20th century the pedal is organically integrated in the complex of pianistic art, constituting a complex system and helping to the creation of various sound effects.

From a technical point of view, by acting on the right pedal (sustain pedal) the following effects are obtained:

- a. enrichment of the volume of the sound, caused by the free vibration of the strings obtained as a result of lifting the entire device of blurring found on top of them;
- b. timbral modifications realized by the resonance superior harmonics and facilitated by the same technical phenomenon;
- c. diminishing of the physical effect of keyboards' attack due to the reducing of the weight of the mechanism belonging to every phenomenon, the pedal taking on the weight of the dampers.

The left pedal (soft pedal/una corda), also called mute, has the role of varying the timbre by striking a single string instead of three, phenomenon generated by the gliding of the hammer mechanism to the left.

In the pianistic creation of the 20^{th} century the pedal system is used in order to obtain the following imperatives:

- a. the creation of distinct colors, of special sounds as well as the impression of acoustic paste, of fog, of mate timbre. As in these cases the system satisfies timbral needs, the pedal is also called *color pedal* or *timbral pedal*. We also notice that sometimes the left pedal is used to obtain beclouded sounds, accompanied by a decrease in intensity;
- b. the individualization and underlying of harmonies, the pedal being changed at the same time with every harmony, or, on the contrary, by not being changed, it overlaps two or more different harmonies. It is called *harmonic* or *disharmonic* pedal;
- c. *the rhythmic pedal*, is used on certain rhythmic configurations in order to either dilute or highlight them;
- d. pedals used simultaneously with other ways of action on different parts of the instrument in order to obtain special sound effects, which, in many cases, can resemble the specific sounds of other instruments. Among them we mention:
 - o the simultaneous use of both pedals (procedure also to be found in Romantic and Impressionist composers' works)
 - o dosing the use of the pedal, technique attributed to Franz Liszt, who used the half and quarter of pedal, but modern creation has reached other limits, for ex. 1/2; 1/3; 1/5 etc
 - o vibrated pedal: Cornel Țăranu Contrasts I, Sonata ostinato;
 - o gradual freeing of the pedal or pressing it after the attack of the note: Violeta Dinescu *Echoes I for piano*;
 - o rapid change of the pedal or the use of the pedal with frequent and short interruptions: Eduárd Terényi *Pianistic games*
 - o the left pedal pressed with interruptions: Valentin Timaru *Sonata for piano*.

The differentiation of the pedal function and its consequent use has become a pretentious operation and interpreters often find themselves in front of difficulties which can

only be solved by assimilating a thorough technique. Therefore, nowadays it doesn't seem odd to say that [6] "the interpreter has to be aware that his legs have to be as free as his hands".

In modern music, the boundaries of precision circumscribing the use of pedals oscillate according to the componistic-notational concept embraced by the author. Consequently, we witness situations where either their use is very strictly mentioned (the pressing and freeing) – Liviu Dandara: *Kaleidoscope* (*Melopoeia, Fortepiano, Timbres*) – up to situations where only one moment of the sound has to be accompanied by the pedal (ex. pedal pressed after the attack of the notes: Violeta Dinescu – *Echoes I for piano*) mentioning the exact moment of freeing it (on the sound or immediately after); or composers let interpreters decide on the use of the pedal. By the indication *ped. ad libitum*, the interpreter, according to his needs, has the possibility to chose how to use the pedal in order to variate the intensity, the color or the duration of sounds, to connect chords etc. Such examples can be found in: Eduárd Terényi – *Pianistic games*; Liviu Dandara – *Kaleidoscope*.

Returning to the situations when composers mention not only the way the pedal is used, but also its moment of attack, we consider appropriate to describe a little the physical area where the sound is produced, as the acoustic phenomenon in itself is known and used by composers and interpreters of the 20^{th} century. The following drawing visualizes the physical and acoustic stages preceding the articulation of a sound and can motivate the choice of different moments to press the pedal.

Moment A coincides with the striking of the string with the hammers. The situation corresponds to an un-qualitative area of the sound as it encompasses mechanical sounds involved in producing it. By pressing the pedal at this point we can obtain rough sounds.

Moment B, in time, immediately succeeds moment A and brings the maximum amplitude of the sound. If it is synchronized with the pressing of the pedal (so immediately after hitting the key), the sound is bright, rich in harmonics and of high quality.

Moment C brings a diminishing of amplitudes. The pedal pressed at this moment is not very efficient; it creates a soft, faint sound.

If in classical theory the problem of the optimum moment of pressing the pedal was focused on moment c, the opinions of modern composers (validated in time) reflect the opposite. This supposition is also strengthened by the thoroughness with which they noted the way and the moment of pressing the pedal system, formerly considered a technical means that was "outside of any precise notation" depending on "the internal hearing of the interpreter, the sound of the instrument, the acoustics of the concert hall and many other imponderable elements." [2]

6. CONCLUSIONS

The Romanian pianistic works of the 20th century use a large variety of techniques; in order to create the artistic image of every detail a judicious elaboration of tone is requested and certain additional qualities are necessary, such as: malleability of the pianistic apparatus and its orientation on various directions on innovative technical coordinates. Last but not least, we have to consider the requirements of conceptual-stylistic knowledge of the interpreter as well as clarifications on the notational system [5, 6] used by the author.

e-ISSN: 2068-3049 Arts Section

Acknowledgement: This work was supported by CNCSIS-UEFISCU, project number PNII-IDEI Code 718/2008 named Exploring the adaptation of on-line learning means to music education.

REFERENCES

- [1] Popescu, C., Constantin Sandu mesager al școlii pianistice românești pe scenele Europei, Simpozionul internațional "Muzica și dansul între clasic și modern", Ministerul Educației, Cercetării și Inovării I.S.M.B., 2009.
- [2] Balan, Th., Principii de pianistica, Ed. Muzicala, Bucharest, 1966.
- [3] Goldbach, F.C., *Incursiuni în creația camerală pentru clarinet în perioada clasică*, Valahia University Press, Targoviste, 2009.
- [4] Raducanu M.D., *Metodica studiului s predarii pianului*, Ed. Didactica si Pedagogica, Bucharest, 1983.
- [5] Nedelcut, N., *Semiografia pianistică în creația românească a secolului XX*, Ed. MediaMusica, Cluj, 2003.
- [6] Goldbach, Felix, C-tin, Journal of Science and Arts, Supplement 2(13), 157, 2010.