

ARRANGEMENT OF MUSICAL COMPOSITIONS AS A WORK FORM FOR THE DEVELOPMENT OF FUTURE PROFESSIONAL MUSICIANS' TIMBRAL HEARING

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Abstract

Professional musical practice sets new requirements for the development of a musician's hearing. A strong tendency of today's musical thinking is laying great emphasis on the timbral element, which now is brought to the foreground as one of the most important expressive and form-developing means. Timbre is an intensively developing sphere of the search of contemporary composition and performance. This, in turn, implies requiring a high developmental level of timbral thinking at performing, composing and perceiving contemporary music. The awareness about the need to teach and develop it among the professional musicians is not yet fully recognized and proved by comprehensive research on these issues.

The creation of different timbral arrangements as a traditional method for improving future professional musicians' musical hearing at sol-fa lessons may be used for the development of their timbral hearing. This study aims to develop the classification of the arrangement types by the nature of relation to the original and levels of mastering instrumental timbral means.

Study is concerned with working out the classification of the arrangement types as well as methodological recommendations on creating different arrangements oriented towards developing future professional musicians' timbral hearing.

Keywords: *development of timbral hearing, arrangement*

Introduction

Traditionally, the problem of the development of musical hearing is considered as being one of the principal issues in music pedagogy. Timbre is an effective means of performing expressiveness: along with nuances, articulation, dynamics, and tempo, timbre provides the performer with an opportunity to realize different variants of performing the composition (Zavadska & Davidova, 2022). The contemporary professional musical practice sets down new requirements for the musician's hearing. Timbral hearing is becoming one of the highest forms of functioning of musical hearing, an artistic-esthetic category, but coloristic findings heighten the expressiveness of sounding. According to many researchers (see Siedenburger et al., 2019) timbre is a foundational aspect of hearing.

Despite of the fact that studies on timbral hearing are quite numerous (Handel, 1995; Handel & Erickson, 2004; Siedenburg et al., 2019; Zavadska, 2021a; Zavadska, 2021b; Zavadska & Davidova, 2022), awareness of the need to teach and develop professional musicians' timbral hearing is not yet sufficiently proved by comprehensive research on these issues.

Practical activities of pedagogues-musicians show that first and foremost teachers work on the development of melodic and harmonious types of hearing. But the development of timbral hearing has been undervalued by music pedagogy until now. Along with a timbral dictation, and analysis by ear, the arrangement of musical compositions for groups of different instruments is an interesting creative work-form which also promotes the development of timbral hearing.

Research aim: to develop the classification of the arrangement types by the nature of relation to the original and levels of mastering instrumental timbral means.

Method

Methods used in this study are as follows:

- The analysis of methodological and theoretical literature on the problem under the research;
- Summarizing of research and pedagogical experiences.

Characteristics of Musical Timbral Hearing

Timbre is a sound quality parameter that depends on a large extent of spectral balance. Evaluation and control of timbre require specific listening abilities which are very important for professional musicians (Quesnel, 2009). Besides, timbre raises many important issues in psychology and cognitive sciences, musical acoustics, speech processing, medical engineering, and artificial intelligence (Siedenburg et al., 2019). T. Litvinova (Литвинова, 2013) distinguishes also such types of timbral hearing as:

- According to the way of implementation – internal and external timbral hearing;
- According to the number of timbres perceived – mono- and poly-timbral hearing.

External timbral hearing is characterized by T. Litvinova as the ability of auditory perception of various timbres of really sounding music. In turn, internal timbral hearing is based on the ability to “mentally” imagine the timbral sounding. A color scheme in like measure of one or several similar instruments (e. g. violins) belongs to the field of mono-timbral hearing, while the sounding of several different instruments (e. g. string, wind, percussion) – to the field of poly-timbral hearing (Литвинова, 2013).

Arrangement as One of the Forms Used for the Development of Timbral Hearing

The arrangement of musical compositions or their separate fragments is creative work and requires musicians' active work of their hearing. The definition of arrangement in *The New Grove Dictionary of Music and Musicians* (Boyd, 2001) states that an arrangement involves reworking, as well as being highly likely to be

accompanied by the change in medium. Arrangement represents itself as both a process and result of musician's creative work on reworking a musical composition in compliance with the new conditions of performing and with the transformed artistic tasks (Garcia, 2008).

The choice of the timbre of some instrument or voice is impossible without hard work of internal hearing and timbral imagination. The closest attention in the artistic conception of arrangement is given to the timbral aspect. The quality of arrangement and musical image, that is being formed, depends on the right choice of timbres and effectiveness of grouping the instruments (Rooksby, 2008).

To correctly determine the initial author's approach to the original and to define tasks, D. Dee (see Boyd, 2019) offers a classification of arrangement types and gives two models of the classification of musical arrangements:

- 1) **Classifying arrangements as their constituent facets** (medium, form/genre, and function which are conventional facets of music).
- 2) **The realm of arrangement** in five spaces:
 - Facets and foci;
 - Temporal;
 - Expression;
 - Authority and creatorship;
 - Transformative information.

On the basis of the analysis of theoretical studies by different researchers and their own pedagogical experience, the authors of this paper offer their own classification of arrangement types, based on the nature of relations to the original musical composition. The aim of this classification is to divide the types of arrangement by levels of complexity and show the differences in work with note texts. The classification of types of arrangement by nature of relations to the original musical composition can be represented in this way:

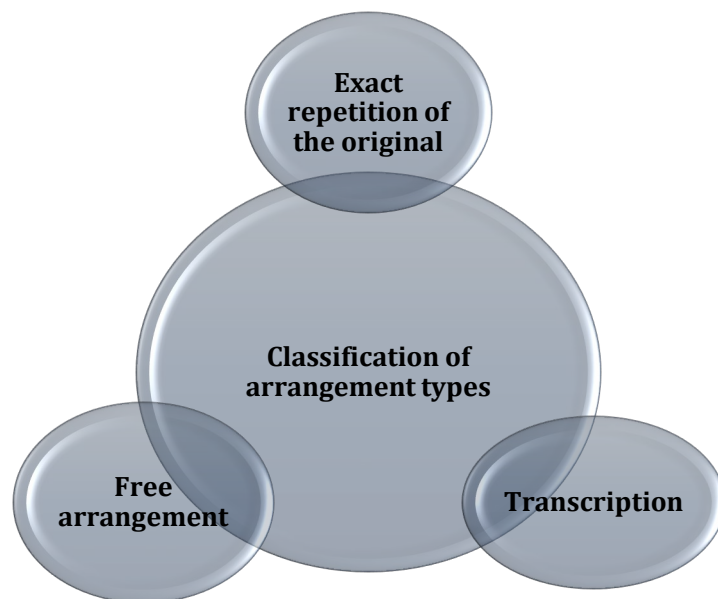


Figure 1. Classification of the arrangement types by the nature of relation to the original

- **Exact repetition of the original**, where the arrangement strongly resembles the original and is a different timbral interpretation. In this case, the note text is only supplemented by adequate techniques of playing, bowings, dynamics.
- **Free arrangement** is the type where slight texture changes, octave transferences, withdrawal of whole musical episodes from the text, partial change of composer's conception are allowed.
- **Transcription** involves active interference in a musical texture, resulting in significant changes in it. In this case, the author of the arrangement becomes the co-author of the composer, and the changes in dramaturgy and tonal plane of the composition are also possible. Often, the transcription has a shade of some virtuoso interpretation of the original (e. g. transcriptions of F. List, S. Rachmaninov).

It must be mentioned that in teaching practice mainly the first type of arrangement – exact repetition of the original – is being used, but in some cases, more advanced learners can use the second type of the arrangement – free arrangement - as well. This can be attributed to the fact that the learners are only beginners in this field, and having little experience in the field of this activity, it is difficult to immediately create free arrangements, and transcriptions even more so.

During the process of arrangement, a kind of “trying on” of various timbral soundings and revealing the role of timbre in creating a musical image take place. This allows the learners to study the sounding deeper and understand why the composer has chosen this given variant of sounding.

The timbral environment and learning new timbral combinations are very important for the development of timbral imagination and fancy. Original combinations are also arrangements for unusual groups of players.

Levels of Mastering Instrumental Means of Music

Pedagogical experience obtained in work with learners studying the arrangement of musical fragments allows distinguishing three major levels of mastering instrumental timbral means. The aim of distinguishing three levels is to show the succession of work on arrangements and the principle of gradualness at mastering professional skills by the learners (see Table 1).

Table 1. Levels of mastering instrumental timbral means

Level	Indicators
Initial	<ol style="list-style-type: none"> 1. Arrangement for one's own “native” instrument; 2. The choice of the composition is related to identical conditions.
Medium	<ol style="list-style-type: none"> 1. Arrangements for the other “alien” instrument; 2. The choice of standard group of instruments (solo with the piano).
High	<ol style="list-style-type: none"> 1. Arrangements for different groups of instruments; 2. Individual creative approach to arrangement.

During practical work, all possible variants of arrangement are used: for one's own “native” instrument, for the “alien” instrument and arrangements for different groups of instruments, depending on experience and success in work with arrangements.

For work at the initial level, learners are offered to create arrangements for their own “native” instrument. At this stage, it is important to select a musical composition which would satisfy certain conditions: register, image structure, nature of movement. These might be vocal arrangements with a melodious melody for different voices which can be arranged for the violin, violoncello, saxophone with the piano.

At the medium level, it is recommended to focus on the “alien”, less familiar instrument in conditions of a standard instrumental group (e. g. a string and piano trio).

At the high level, non-standard groups can be used: creation of such arrangements belongs to the field of individual creativity. Non-standard instrumental groups allow the implementation of creative ideas with unusual timbres and their combinations: vibraphone and saxophone, harp and marimba, horn and violoncello, clarinet and accordion etc. Such assignments contribute to the development of timbral imagination and fancy.

Peculiarities of Creating Various Timbral Arrangements

Work on arrangements requires a professional approach based on deep knowledge of characteristic features of different epochs and styles, on adhering to the principle of succession in work and on a firm conviction about one’s own aspirations (Lee, 2019). Style and genre of music play the decisive role at solving artistic tasks on arrangement (Corozine, 2015).

Due to the tremendous diversity of timbral sounding palette, it is possible to create sounds for a musical composition of any style and genre.

When learners work on arrangement they should be supplied with the information about:

- epoch;
- composer;
- peculiarities of the specific style and genre of the given composition.

Learners should learn to be competent in various trends of style. The composition of the players’ group depends on style and genre. Besides, the quality of the developed arrangements will depend on a correct use of theoretical knowledge and on the learner’s auditory and practical experience.

The main thing at producing arrangements is to consider the timbral dramaturgy of a musical composition. It has two aspects: the imagery content aspect and the aspect of creating the form. It is essential to focus the attention on the role of timbre in the formation of imagery content of the composition. The choice of compositions for the arrangement might be related to the program music. A definite timbre of the instrument can be connected with some character from the program music.

The link between the timbral dramaturgy and form-creating role of the timbre also should be underlined. The use of one timbral sounding for the development of some specific theme – melodic line - connects the musical thought into a single whole, but contrasting timbres emphasize division, confronting of musical images. The concept of timbral differentiation pertains to the form, when the change of timbral nuance takes place in a new division of the form.

In turn, the concept of functionality is related to texture. Different simultaneously sounding layers of musical texture must differ from each other in their timbral nuances or in the character of sounding.

Working on arrangements, learners' functional thinking should be developed. To do this, they have to acquire and develop practical skills of creating different textures.

Other useful timbral techniques are as follows:

- Technique of colorizing (coloristic), which is related to imitating sounds (e. g. imitation of the sound of shepherd's pipe, singing of birds, splashes of rain etc.) and to the use of percussion instruments and of sonorous soundings;
- A rapid change of a thematic material: a small piece of composition promotes constant changes of timbral zones, which, in turn, determines a constant "play" – a change of timbral colorings;
- Technique of switching the sounding over to a new timbral plane, for instance, unexpected switching of fragments in the performance of solo instruments;
- Technique of imitating the sounding of folk instruments;
- Technique of contrasting timbres, when the sounding of some timbre is not being performed until some definite moment, and therefore its unexpected appearance creates the effect of a renewal;
- Timbral "metamorphosis" – comparison of various techniques of performing by playing one and the same instrument within the frame of one composition.

The process of arrangement can be divided into several stages:

- **Research stage**, which includes historical-cultural, stylistic, technological, and performance analysis of the given composition;
- **Planning stage**, which presupposes developing the plan of arrangement and the projection of the means of expression of the initial composition for a specific group of performers;
- **Stage of the technical implementation of the developed plan** is related to a concrete work on the arrangement of a composition;
- **Control stage**, which involves the analysis of the produced arrangement and identifies losses and gains in comparison with the original.

Choice of a Musical Composition for the Arrangement

In practice, it is recommended to take several piano compositions for creating the arrangement. The choice of musical compositions for the arrangement should be done by taking into account three indicators (see Figure 2):

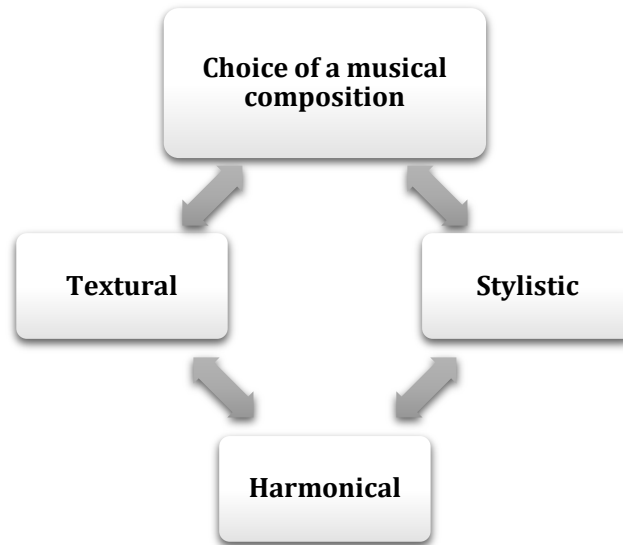


Figure 2. Indicators of the choice of musical compositions for the arrangement

A. Stylistic

For the majority of musical instruments, there are musical compositions of definite style to play. This can be attributed to the specific features of one or another instrument: timbre, expressive and technical possibilities.

At choosing some composition to create the arrangement for one or several instruments, it is essential, first and foremost, to decide (imagine) how it will sound on the selected instrument and whether the author's conception won't be misinterpreted. Thus, for instance, it is quite evident that a composition for the piano with the texture, scattered across a wide diapason of subtle pedaling characteristic only of the piano, will sound strange and even completely unfamiliar performed on wind instruments even in the best arrangement.

B. Harmonic

Characteristic feature of this aspect of arrangement is the fact that a musical composition created for one or a group of instruments (also for singing, orchestra etc.) transforms into the composition created for a different instrument. This implies that at preserving its initial expressive qualities and properties, the composition becomes comfortable to perform on a different instrument and sounds well.

C. Textural

To successfully arrange a musical piece, it is necessary to clearly imagine its original sounding. We need to compare the written arrangement with the original of the musical composition: to check the melody and harmony, and consistently shift all author's instructions (tempo, its changes, dynamic and other nuances, as well as all small signs – accents, points etc.) onto the arrangement.

The techniques of performing (bowing) might be transformed in some cases, however, each change must be objectively valid. In their compositions for the piano, some composers (e. g. L. Van Beethoven) have marked pushing of the sustaining pedal by a dynamic nuance *sf* (*sforcendo*). Techniques of *legato*, *staccato*, *portamento*

are related to the nature of a musical instrument, and things that sound well on the piano do not always sound well on a different instrument. For instance, slurs of the violin, indicating the movement of the bow, have nothing to do with the sounding of other instruments.

Pedagogical practice knows cases when the arrangement has been done quite well, but the real sounding of the arrangement does not correspond to the original concept of the author. Then the arrangement should be looked through once more, bearing in mind texture, voice leading, registers and other important parameters of musical-expressive means of music.

The basic principles of the arrangement – unchangeability of author’s conception and the timbral originality of sounding – remain important in case of the arrangements for a group of instruments.

Conclusions

1. Arrangement of musical compositions or fragments of compositions is a creative activity, which is related to active work of musical hearing. Producing arrangements promotes the development of future professional musicians’ practical skills, and contributes also to widening the repertoire for musicians’ future pedagogical activities. In performing activities, arrangement is a way how to demonstrate the rich virtuoso and expressive possibilities of one’s own instrument, and also a form of re-reading the timbral aspects of well-known compositions.
2. A step-by-step algorithm in work on arrangements – research, planning, technical performance, control – might help prospective professional musicians avoid accidental solutions, semantic and technical disparities with the original.
3. At selecting musical compositions for the arrangement, three indicators should be taken into consideration: stylistic, harmonical and textural.
4. Prospective professional musicians’ work on arrangements enhances the acquisition of the logic of musical composition’s development, its imagery and structural-timbral content, and develops also a deeper understanding of all textural elements and expressive possibilities of timbral variation, which finally forms the basis for the development of learners’ timbral hearing.

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