The purpose of this article consists in analyzing and systematizing of contemporary Ukrainian scientific works, dedicated to investigation of playing trombone at the sphere wind academic musically performing art. The purpose also includes the determination of scientific high-priority, but not researched directions in domain of trombone performing. The methodology of this disquisition is based on the use of methods of analysis and synthesis, which allows underlining the most characteristic attributes of scientific developments regarding trombone by diverse authors and producing general characterizations for investigative vectors of the series of modern explorers. The authors of represented article apply also comparative and systematic scientific methods, which allow correlating the received facts and implementing its systematization.

The scientific novelty of this working consists in generalization of contemporary Ukrainian scientific material concerning little-investigated route of wind academic music performing practice, exactly trombone playing art. Revealing of not studied aspects of trombone performing in domestic wind scientific and research thought is also new.

Conclusions. The concert-solo trombone playing arouses the most scientific interest among researchers. Trombonists' ensemble creation is paid less investigative attention. Technological processes of trombone performing as well as functional peculiarities of key trombone artistic expressive possibilities arouse less scientific interesting among contemporary investigators. Studying technological processes of playing instrument with detecting particularity of sequence of trombone's pro nominalisation appears less investigative attention. Technological processes of trombone performing as well as functional peculiarities of key trombone artistic expressive possibilities arouse less scientific interesting among contemporary investigators.

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Keywords: researcher, investigation, trombone, analysis, masterpiece, academic performing.
Statement of the problem. It is known, that scientific activity of musicians on brass and woodwind academic instruments in Ukraine begins from the second half of the 20th century. A researcher, bassoonist M.I. Karaulovsky, being the leader teacher of the specialization of bassoon in Odessa state conservatory named after A.V. Nezhdanova (now Odessa National Music Academy named after A.V. Nezhdanov), defended the first candidate dissertation on the topic "Expressive means of bassoon" in 1955. Since then dynamic scientific investigative activity at the sphere of wind music performing art constantly is increasing with essentially prevailing of scientific work dedicated to the study professional performing processes on woodwind instruments.

The first fundamental scientific disquisition of the domain of academic playing trombone, namely candidate dissertation on the topic "General consistent patterns controlling of trombone sounding" was defended by the celebrated trombonist S.G. Gorovoy in 1997. The musician was at that time professor of Donetets state conservatory named after S.S. Prokofiev; now this outstanding researcher is head of the department "Popular Music Art" of the Dnipropetrovsk Music Academy named after M. Glinka.

By this means, studying of academic trombone playing at the domain of Ukrainian instrumental performing musicology begins only from the end of the 20th century.

The denoted direction of scientific investigative activity especially is promoted at the beginning of the 21st century in the research work of the leader of Ukrainian teachers-trombonists. Among them there are Ph.D in Art history, professor of the department "Brass wind instruments and percussion" of the National Music Academy of Ukraine named after P.I. Chaikovsky (Kiev), honored artist of Ukraine F.P. Kryzhanovskiy; Ph.D in Art history, professor of the department "Wind instruments and percussion" of Kharkov National University of Arts named after I.P. Kotlyarevsky O.V. Fedorkov; professor of the department "Musical art" of the National University of Culture and Arts (Kiev) G.P. Martseniuk.

Certainly, promoting of scientific activity at the sphere of academic trombone playing formularizes the problem of revealing the most perspective, not studied directions of researching of trombone’s art. This, in its turn, generates the necessity of the systematization of already scientifically developed aspects concerning this thematic vector.

The topicality of the delineated topic grows from contemporary performing practice of domestic musicians on wind academic instruments, particularly, trombonists. Their high professional level of performing skill conditions the importance of creating permanently evolving theoretic and methodological base for the artistic practical mastering of the academic instrument.

Outstanding Ukrainian researcher at the scope of wind academic musical performing art, teacher-trumpeter S.D. Tsulylyupa asserted: "Failing behind from practice in the sphere of art carries danger, threat, which can bring to negative consequences. Therefore, the most progressive qualified musicians and teachers of wind academic instruments understand the fact, that it is necessary to supply your creative and pedagogical practical activity with theoretic scientific investigations."

Today, the performing on wind academic instruments and percussion has achieved the certain degree, that further its development is already impossible without modern scientific investigations, innovational approaches to teaching of special subjects, using in educational process advanced specialized courses, new essential objects, which orientated to European standards and demands of society" [13, 37].

The analysis of the literature. The domestic scientific works, devoted to art of playing trombone, did not become the subject of independent scientific exploration. Undoubtedly, they are a part of other theoretical developments regarding scope of wind academic performing. Among them we should note, in the first place, the fundamental educational tutorial "History of wind musical performing art" by professor V.N. Apatisky, in the second book of which the celebrated researcher discloses theoretical works of Ukrainian performers on wind academic instruments [1]. The article "Scientific working – candidate and doctoral dissertations of Ukrainian performers on wind academic instruments at the 20th – the beginning of 21st century" by S.D. Tsulylyupa [13] takes special place, wherein the investigator chronologically systematizes and laconically analyzes the content of scientific works of Ukrainian researchers-performers on wind academic instruments.

But, unfortunately, the mentioned above authors do not make the generalization of problem-thematic vectors of explorations of not studied aspects concerning professional performing on wind academic instruments, particularly, playing trombone.

The purpose of this scientific research consists in carrying out analysis and problem-thematic systematization of contemporary Ukrainian investigations dedicated to studying art of trombone playing at the scope of wind academic musical performing culture as well as denoting scientific high-priority and not studied directions of academic trombone performing.
Basic materials. Obviously, that first scientific fundamental disquisition exactly, as above-mentioned, dissertation "General consistent patterns controlling of trombone sounding" [2] by S.G. Gorovoy had thematically determined significance for further research working at the sphere of art of trombone playing. Already in the next 1998, material of dissertational paper by S.G. Gorovoy, supplemented and correspondingly processed, became very popular in the form of monograph "Technology and art of trombone playing (complex analysis of the performing process)" [3].

The technology of generation of trombone sound is revealed amazingly detailed in first part of the edition. Processes of work of lip apparatus, performing breathing, peculiarity of position of arms (hands), head, body and legs of musician are considered deeply by the author. Essential attention is devoted to the form of mouth cavity of performer-trombonist and consideration of psycho-physiological foundation regarding art of trombone playing, discovering the ways for prevention possible professional illness to musicians on wind academic instruments.

Monograph's second part pays attention of investigator to artistic criterion concerning technological processes of playing trombone. Exploring series of expressive means of the academic trombone sounding, a namely timbre, attack (beginning of sound), hatches (touching to sound), dynamic (changing of sound's loudness), vibrato. The defining criterions of workmanship and the role of skills of self-control not only for professional trombonists, but and for musicians on other wind instruments specializations by scientist forms the most important dignity of this paragraph. S.G. Gorovoy compliments hearing and seeing perception of performers’ motility, vibratory as well as touchable senses, that, undoubtedly, increase degree of control at the time of immediate performing process.

The continuation of S.G. Gorovoy's scientific activity in the direction of methodological technologic investigative work is logical for the renowned researcher. The explorer pays maximal local attention to trombonist’s embouchure (lips apparatus) of academic manner performing at the beginning of the 21st century [5] as well as the scientist implements analysis of innovations and traditions in the methodology regarding training of performers on wind academic instruments [4].


The first section of delineated dissertational work "Concert for trombone in European musical culture: history of becoming, development’s milestones" reflects maximal panorama of creation of one of the leading genres in the sphere of wind academic musical performing art in the light of playing trombone. The investigator addresses the brightest examples of artistic concerting trombone in period from the second half of the 18th century and the beginning of the 21st century. The researcher reveals such characteristic traits as individualization of solo part, contradistinction of solo performing as well as vocal character of the presentation of solo trombone’s part notes in early concerts for trombone (expressive composers' masterpieces L. Mozart, G. Wagensail, M. Haydn, J. Albrechtsberger).

The trombone concerts of romantic period (authors F. David, O. Lange, F. Greffe, E. Reiche) differ brilliant virtuosity and high performing technology. The explorer claims, saying about the development of investigating genre at the end of the second millennium, that "determined two main directions in the evolution of concert for trombone in the 20th century. The first is characterized by aspiration to large-scale development of musical dramaturgy with wide employing divers orchestral means, second is underscored by gravitation to chambering and individualization of part’s solo" [6, 6]. The researcher studies the compositions by L. Grundal, D. Millau, A. Tomazi, K. Serotsky, J. Ksenakis and other authors.

The second dissertational section "Ukrainian concert for trombone: milestones of evolution, genre diversity" is described by the period from the second half of the 20th – the beginning of the 21st century. The investigator studies the concerts by E. Zubtsov, A. Znosko-Borovskiy, V. Gomolyaka and L. Kolodub, characterized by the national folk intonations, harmony and rhythmic peculiarities of folk music. The explorer notes symphonized type of writing in bright trombone compositions of V. Zdorov and E. Nesterenko. The masterpieces by A. Roshchenko, A. Kostin are characterized by experimental nature of representation with vivid applying of avant-garde means of artistic expression.

The further energetic scientific activity of F.P. Kryzhanovskiy includes investigating of the interaction academic vocal and instrumental performing as well as, in result, subsequent learning their synthetic perception at the early musical Baroque period [7].

The mainstream new foreshortening in the scientific disquisition concerning art of playing trombone is defined at the dissertation "Ukrainian ensemble of trombones in the context of world musical art" by O.V. Fedorkov [11], which was successfully defended in 2008.

The first dissertational part "Ensemble of trombones as phenomena of musical art: history development" covers maximum possible period of development of trombones ensemble, exactly from early Renaissance and art "Ars Nova" until contemporary postmodern directions. The scientist accentuates attention on universality of sources regarding trombone performing, marked as secular and ecclesiastical sphere employment as well as synthesis with vocal music.
Underlining, that creation of the family of trombones (soprano, alto, tenor, bass) in the 17th century is fateful fulfillment in creating first compositions for these performing group. The researcher analyzes original compositions for ensemble of trombones by L. Beethoven, A. Bruckner, F. Berra, J. Cohan and ascertains affirmation of secular and sacral functions of the art of ensemble of trombones with expressive delineation of its polar imagery: "from severe majesty – until celebrative rejoicing, from accompaniment of spirituals texts until infernal stages" [11, 6].

The phenomenon of Ukrainian trombone ensemble is studied as genre system at the second section of dissertation by O.V. Fedorkov. The investigator pays attention to the most complicated and synthetically ambiguous period regarding development of musical art, a namely the second half of the 20th – the beginning of the 21st centuries. The "Scherzo" for tree trombones by A. Znosko-Borovsky, "Suit on Ukrainian themes" for quartet trombonists by A. Litvinov, Concert for four trombones and percussion by V. Chepelenko, Sonata for quartet trombones and percussion by R. Goltsov, Symphony "Allophones" for quartet trombones, stringed instruments and percussion by V. Patsera.

The researcher summarizes that Ukrainian trombone ensemble in modern stage of its evolution is characterized by "break through" to the sphere of conceptual genres, controversial dramaturgy; different concerting instruments; enrichment of musical style (attributes of neoclassicism, folk, jazz, neo-romanticism) [11, 12].

The dissertation "Stages of becoming and problems of development of Ukrainian trombone performing (the end of the 19th – the 20th century): historical and methodological aspects" by G.P. Martseniuk [8], defended in 2011, induces special scientific interesting.

Outstanding scientist explores trombone as ensemble and orchestral instrument, at the first section "General-historical aspects evolution of trombone performing", in the context of creation of Western-European (C. Monteverdi, W. Mozart, L. Beethoven, G. Berlioz, G. Mahler, R. Strauss), Russian (M. Glinka, P. Tchaikovsky, M. Rimsky-Korsakov, I. Stravinsky) and Ukrainian (A. Shtogarenko, M. Skorik, I. Karabits, E. Stankovic) composers.

The second part of dissertation by G.P. Martseniuk is dedicated to the study of the milestones of development of the regional performing school of playing trombone in Ukraine. The author reveals personalities of founders, followers and celebrated representatives of Kiev, Odessa, Lvov, Kharkov and Donetsk trombone’s performing schools.

The investigator touches upon the questions of theory and methodology regarding trombone academic performing in the third section of the dissertation. Famous explorer detects the processes of construction of embouchure, concretizes the functions of tongue (attack of sound) and discovers the particularity of performing breathing as well as significance of resonators in playing instrument and concerns the complicated questions of pressure of mouthpiece on lips and elimination of noise defect in the attack of sound.

The G.P. Martseniuk’s dissertational work claims the existence of Ukrainian professional trombone’s school as technologically particular and artistic peculiar, bright phenomenon of wind instrumental academic musical performing art in total.

Scientific results of Martseniuk’s investigative activity gained wide popularity after publishing his monograph "Ukrainian trombone performing in context of European wind instrumental musical art" [9].

It is worth noting also the two successfully defended, but polar different in thematic directing, trombone’s dissertations exactly "Solo and chamber compositions in context of becoming of Ukrainian trombone’s repertoire (2014) by Ya.P. Sadovsky [10], as well as "Compositional and dramaturgical functions of trombone’s timbre in orchestral creation by composers of the 19th century: to the problem of timbre semiology of music" (Odessa, 2015) by Zou Wei [12]. The authors appeal to various kinds of academic performing (solo, ensemble and orchestra), maximally discovering particularity of polar-different types of professional trombonist’s practice.

Conclusions. The above mentioned analysis of the candidate dissertations allows ascertaining enormously wide spectrum of thematically investigative directions in the sphere of academic art of playing trombone. Concert-solo trombone performing induces the most scientific interest (F.P. Kryzhansovsky, G.P. Martsenyuk, Ya.P. Sadovsky). Ensemble creation of trombonists attracts less exploratory attention (O.V. Fedorkov, Ya.P. Sadovsky). Technological processes of playing trombone (S.G. Gorovoy) as well as functional peculiarities of key artistic expressive trombone’s opportunities (Zou Wei, Odessa) are touched upon least of all by contemporary researchers in the wide scope of wind instrumental music performing art.

Accordingly, the studying of technologic processes concerning playing instrument with detecting professional particularity of series of trombone schools (domestic, foreign), as well as investigating specific artistic means regarding expressive palette of modern trombone with revealing its functional possibilities compose high-priority routes of the min scientific directions of studying the academic art of trombone playing.

The prospect of further exploring of the mentioned subject lies in appealing to educational and methodological developments of the above indicated scientists-teachers and revealing, through their analysis, new topical scientific research vectors.
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