

## Sounding Space in Claude Debussy's Orchestra

Russian musicologists consider Debussy's orchestration from the point of view of so called coloristic style. Thus, Y. Krein in his monograph "*Style and Color in Orchestra*" gives much prominence to Debussy's symphonic music bringing into focus ornamentally picturesque techniques which, according to him, give rise to association between sound and color<sup>1</sup>.

Music researchers drawing parallels between Debussy's oeuvre and Impressionism in painting speak about his depictive music. For instance, N. Alexeenko, the author of the article about impressionism and expressionism in music<sup>2</sup> compares Debussy's "clear tones technique" with the artists' "technique of separate touch". Further, he draws a music-pictorial parallel: symphonic triptych *La Mer* is compared to *The Rocks of Belle-Ile* by Claude Monet, and *Nuages* (from *Nocturne*) — to London series of the same artist.

Debussy's brilliant orchestral pallet is definitely out of questions. Perhaps not only his music as such but literary programs anticipating his pieces (see, for example, the program in *Nocturne*) provoke rich visual associations. Moreover, the trend of making parallels between orchestral means and coloring has been entrenched in musicology long ago and was supported by psychologists' findings regarding audible and visual aspects.

Meanwhile, to our opinion, the imaginative line of Debussy's pieces is not limited merely to reference to the visual one: his symphonic works may give rise to some different associations. While analyzing his orchestral works we may use not only visual categories (color, light, line etc.) but physiological sensations as well – as if in his pieces the composer plays with volumes, creates air flows and vibrations, depicts space occupancy or deserted expanse<sup>3</sup>.

If to consider the imaginative line of Debussy's compositions from such positions, the increased role of orchestration in his symphonic music becomes clear enough. However, orchestration is not limited to bringing ornamentality or smartness, but serves as a constructive source getting in the line with other musical means of image creation. We may even say that Debussy's orchestration occasionally possesses a determining meaning in the image structure, constitutes its core. It is the orchestra that helps the composer produce various spacing effects.

Prior to considering specific orchestral techniques used by Debussy to create spacing effects it is necessary to remember that at the time of his activity the composers wrote symphonic music with a view to concert performance. While an orchestra, as a performing mechanism by virtue of its distributed spatial arrangement in *real* stage, has an important characteristic which disappears in audio recording, i. e. multiplicity of sound source. Thus, "alive" orchestra already contains potentialities for evocation of the sound images of space.

It is necessary to note that not all methods of work with orchestra referred to below are new for musicology: some of them have already accumulated "semantic equipment". For instance, solo woodwind instrument without orchestral support was perceived as a sole voice against the broad expanse (as back as in the slow part of *Pastoral Symphony* by Beethoven). It is quite possible that this image retained in the "memory" of the flute tune in the beginning of *Prélude à l'après-midi d'un faune*. At least, quite similar impression is produced. (Example 1)

Claude Debussy uses natural inherent features of certain orchestral instruments. One of the most evident examples of this kind is a French horn. Due to its physical characteristics and structural features the sense of volume as though is implied in its timbre. So Debussy use this instrument emphasizing such feature associated with space.

Apart from traditional functions of orchestral French horns – pedals, harmonic lines and melodic elements, – the parts of the instrument were written by the composer as if the instrument is free from "labels" tagged to it while being employed in a symphony orchestra and has got back its original mode of use of a Waldhorn. Such

<sup>1</sup> Крейн Ю. Стиль и колорит в оркестре. М.: Музыка, 1967. 106,[1] с. : нот.

<sup>2</sup> Алексеевко Н. Импрессионизм – экспрессионизм. Колорит и экспрессия оркестрового тембра и их связь с живописью // Оркестр : сб. ст. и материалов в честь Инны Алексеевны Барсовой. М. : Моск. гос. консерватория им. П. И. Чайковского, 2002. С. 271–279.

<sup>3</sup> A propos, visualization of space and transparent vibrating air is one of achievements of the impressionist artists. This fact makes comparison of Debussy's oeuvre with them more sound and diverse. However, as stated before, in Russian musicological literature the depictive aspect of his orchestration is emphasized primarily.

parts are always outlined audibly. For instance, at the end of each statement in the second part of the orchestral piece *Printemps* we may notice French horn's motives which may be called "the calls". (Example 2)

A number of such "calls" are found in *Nuages*. (Example 3)

In *De L'aube à Midi sur la Mer* (the first movement of the symphonic triptych *La Mer*) four French horns perform a theme which create expressional image of lonesome sea spaces. (Example 4)

In the same manner Debussy exploits the possibilities of woodwind instruments. Thus, in the melody line in *Nuages* performed by soloing woodwind instruments, the audience's attention is drawn from the coloring of sound nuance to the peculiarities of sound generation. Sound continuance together with slow tempo make us perceive vibrating air pillar in the instrument and performer's breathing. Such details apparently promote creation of the image of melting clouds slowly vanishing into thin air. (Example 5)

Among ornamental instruments the sound of glockenspiel and harp evokes definite associations related to space. These instruments are often can be found in Debussy's scores and it seems as if they add volume to the sound.

From time to time the composer makes corrections to the original timbre of an instrument aiming at giving to the sound a sense of volume. In the first part of *La Mer* the presentation of the main theme is given in a peculiar timbre of the mute trumpet (with the support of English horn); as if its sound is coming from some barrier; this feeling of distance is supported by the position of the performing musician – in the distant point of the stage. (Example 6)

In general, various playing techniques make a separate group of orchestra methods to create space. Debussy employs traditional approaches entrenched in Romantic descriptive music (for example, tremolo of the strings, harp glissando etc.) as well as creates innovative methods.

In *Dialogue du Vent et de la Mer* (the last movement of *La Mer*) the composer employs tremolo of traditional percussion: timpani and bass drum but in low dynamics, owing to that fact the sound of the instruments are rather felt than heard, thus, creating the effect of droning volume space. (Example 7)

Ornamental instruments provide a variety of challenging playing techniques. Such instruments are frequently used to create the effect of thin mist. The second movement of *La Mer – Jeux de vagues* is filled with the examples of the above: as if slightly distinguishable touches of the glockenspiel and the harp, faint "chirping" of the triangle are blurring wrapping the orchestral vertical and filling it with trembling and twinkling air. (Example 8)

The peculiarities of texture organization are among Debussy's important means of construction of an expanse image. As a rule, his symphonic works are noted for polysynthetic orchestra vertical. But opposite examples may occur as well. Thus, a sense of empty space is created by virtue of utmost registers while the medium register is empty. In the beginning of the first part of *La Mer* before introduction of the main theme the composer creates specific background where the registers are widely spread in orchestral range. Tremolo of first violins in high register which may be compared with slight air vibration intensifies the impression of tinkling emptiness. (Example 9)

Further, in the figure 4 of the same piece we may notice an interesting spacing effect arising due to the character of combination of texture layers. The two functions in the orchestra vertical are definitely traced and heard: an oboe solo, the first harp, a cello solo and contrabasses perform the melody against weaving tones of string instruments and the second harp. While the melody line is performed by all the instruments rhythmically in the same manner, the background texture is characterized by rhythmical "retardation": semiquavers in the scores for a harp and cellos and semiquaver triplets for violins and violas. Such differentiation and texture layering help to give impression of petty movements and flexible changes of volume. (Example 10)

In some fragments of Debussy's symphonic pieces we may notice spacing effect arising in the result of indistinctive timbre approach of background and thematic elements.

In the figure 3 of the first part of *La Mer* the main theme is performed in the matt timber of four French horns with a mute while the background elements of the texture are performed by strings and a harp, the combination of which creates "plummy" and definite (regarding the timber) mix (see Example 4). Further (figure 5), this mix is accompanied by woodwind instruments and the second harp. The rhythmical pattern of the background becomes more complicated, traits and method of producing of sounds become more various, pretentious and as the result the audience attention is concentrated exactly on it. The thematic element of horns goes deeper into the space, thus, responding to the images of the sea bosom suggested by the name and the program. (Example 11)

The third movement of the *Nocturnes – Sirènes* provides a rich field for observation of texture's "behavior". Along with inconspicuous renewal of thematism, here we may note permanent play of texture elements: they freely migrate from a timbre to a timbre, from one orchestral group to another, appear in various combinations and relations changing its function from relief to background and vice versa. Such principle of texture organization may be called kaleidoscopic. It results in the situation when, along with outer static character, the piece is replete with inner "events". Metaphorically, we may compare it with sea slick which seems to be still but in fact it is full of permanent various changes.

The list of spacing effects in Debussy's scores may be prolonged. For instance, we may point out the techniques of echo and resonance. But the examples given above are probably enough to broaden the opinion of what the functions of orchestration in the French Artist oeuvre are, as well as to reveal innovation features in his approach which lay a course to creative research of musicians of the following ages.

## Santrauka

### Skambanti Claude'o Debussy orkestro erdvė

Rusų muzikologinėje literatūroje, skirtoje C. Debussy simfoninei kūrybai, dažnai minima jo spalvinga orkestrinė „paletė“. Tačiau būtų galima taikyti ne tik vizualines kategorijas (spalva, šviesa, linija ir t. t.) – savo kūrinuose kompozitorius tarsi žaidė apimtimis, kūrė oro sroves ir vibracijas, vaizdavo užpildytas arba tuščias erdves, išgavo įvairiausių erdvinius efektus.

Prieš aptariant konkrečias orkestrines priemones, kurias C. Debussy naudojo kurdamas erdvinius efektus, reikėtų prisiminti, kad jo kūrybinės veiklos metu kompozitoriai kūrė simfoninę muziką, skirtą koncertiniam atlikimui. O juk orkestro, kaip atlikimo priemonės, išsidėstymas realioje sceninėje erdvėje turi vieną labai reikšmingą ypatybę – daugybinį garso šaltinį, kurio netenkama garsą įrašius. Taigi jau pats „gyvas“ orkestras turi potencijos sukurti erdvinius garsinius vaizdinius.

Norėdamas sukurti erdvinius efektus, C. Debussy pasitelkdavo, pavyzdžiui, tradicinius mušamuosius instrumentus. Kraštinėse „Jūros“ dalyse kompozitorius naudojo negarsų timpanų ir didžiojo būgno *tremolo*. Kadangi šis garsas yra daugiau juntamas nei girdimas, tai sudaro plačios gaudžiančios erdvės įspūdį. Spalviniai instrumentai panaudoti lengvos miglos efekto kūrimui: vos girdimi varpelių ir arfos garsai, tylūs trikampio „pakrebždenimai“ tarsi pasklinda po visą orkestrinę vertikale, pripildo ją virpančio, mirguliuojančio oro.

Vienas įdomiausių erdvinių efektų yra „Jūros“ pirmosios dalies pradžioje, kur pagrindinėje temoje girdimas specifinis trimito su surdina tembras: garsas atsklinda tarsi iš už uždangos, ir šį nutolimo įspūdį dar labiau sustiprina atlikėjo buvimas scenos gilumoje. Tos pačios dalies 3-iajame skaitmenyje šis efektas dar labiau paryškintas foninių ir teminių elementų tembriniu sprendimu. Temai čia suteikiamas matinis keturių valtornų su surdinomis tembras, o foninius faktūros elementus atlieka styginiai ir arfa, kartu susiliejęs į sodrų, ryškaus tembro derinį. Vėliau (5 skaitmenyje) šį derinį papildo mediniai pučiamieji ir antroji arfa. Fono ritminis piešinys tampa sudėtingesnis, štrichai ir garso išgavimo būdai įvairėja, kol pagaliau klausytojo dėmesys sukonzentruojamas būtent čia. Valtornų temos vis labiau traukiasi į erdvės gilumą – taip sukuriama jūros gelmių vaizdiniai, atitinkantys kūrinio pavadinimą ir programą.

Erdvinių efektų pavyzdžių sąrašą galima būtų tęsti – tai aidas, atbalsiai ir pan. Tačiau svarbiausia, kad šie pavyzdžiai atskleidžia naują prancūzų menininko požiūrį į orkestruotę, atveriančią kelius ateinančių kartų muzikų kūrybiniam išsivystymui.

Example 1

# Prélude à l'après-midi d'un faune

**Très modéré**  
1<sup>o</sup> SOLO

3 FLÔTES  
*p* doux et expressif

2 HAUTOIS

2 CLARINETTES EN LA

4 CORS A PISTONS EN FA

2 HARPES  
1<sup>o</sup> accordez LA2-S1b, DO2-BE5, MI2-FAb, SOL2-LAb  
1<sup>o</sup> glissando

**Très modéré**

VIOLONS

ALTOS

VIOLONCELLES

CONTREBASSES

The image displays a page of a musical score for the orchestral work 'Prélude à l'après-midi d'un faune'. The score is written for a full orchestra and includes parts for 3 flutes (with a first solo part), 2 oboes, 2 clarinets in A, 4 horns in F, 2 harps (with specific chordal instructions and a glissando), violins, altos, violoncelles, and double basses. The tempo is marked 'Très modéré'. The flute part is marked 'p doux et expressif'. The harp part includes instructions for the first chords and a glissando. The woodwind and string parts are mostly silent in this section, with some light accompaniment from the oboes, clarinets, and horns.

Example 2

II

**Modéré**

2 GRANDES FLUTES  
 2 CLARINETTES  
 1 CLARINETTE EN LA  
 2 CLARINETTES EN LA  
 2 SAXOPHONES  
 1<sup>re</sup> et 2<sup>e</sup> CORNS en FA  
 3<sup>e</sup> et 4<sup>e</sup> CORNS en FA  
 2 TROMBONES en UT  
 3 TROMBONES  
 TIMPANS en UT  
 TRIANGLE  
 CYMBALES  
 TAMBOURIN  
 HARPE  
 1<sup>re</sup>  
 PIANO à 4 mains  
 2<sup>e</sup>

**Modéré**

1<sup>re</sup> VIOLONS sans Sordines  
 2<sup>e</sup> VIOLONS sans Sordines  
 ALTES sans Sordines  
 VIOLONCELLES  
 CONTREBASSES

**21** **Poco animando**

The musical score is for measures 21 through 24. The tempo is marked **Poco animando**. The instrumentation includes Flute I, Flute II, Oboe, Clarinet, Bassoon, Trumpet, Trombone, Horns, Violin I, Violin II, Viola, Cello, and Double Bass. The score contains various musical notations, including dynamics such as *pp*, *p*, *mf*, *f*, and *cresc. molto*. There are also performance instructions like *rit. in debora* and *sempre*. The score is written in a standard orchestral format with multiple staves for each instrument.

Example 3

The musical score for Example 3 is arranged in a system of ten staves. The top two staves are for vocal parts: **COR ANG** (Soprano) and **CORN** (Corno). The vocal lines feature melodic phrases with dynamic markings such as *p* and *pp*, and articulation marks like accents and slurs. The **CORN** part includes first and second endings, marked *1<sup>o</sup>* and *2<sup>o</sup>*. The piano accompaniment consists of three staves: **piano** (right hand), **cello**, and **double bass** (left hand). The piano part features a complex rhythmic texture with many sixteenth notes, often beamed in groups. The cello and double bass parts provide a steady accompaniment with quarter and eighth notes. The score is written in a key signature of one sharp (F#) and a common time signature (C). The overall style is characteristic of late 19th or early 20th-century orchestral music.

The image displays a page of a musical score for an orchestra. At the top left, the instrument parts are identified as "COR ANG." (Cor Anglais) and "CORNS." (Cornets). The score is written in a key signature of one sharp (F#) and a common time signature (C). It consists of ten staves. The first two staves are for the woodwinds, with dynamics markings of *p* and *pp*. The remaining eight staves are for the brass section, with dynamics markings of *f* and *pp*. A rehearsal mark "3" is placed above the third measure of the first staff. The notation includes various note values, rests, and dynamic markings such as *p*, *f*, and *pp*.





The image displays a page of a musical score for an orchestra and choir. The score is arranged in a system with the following parts from top to bottom:

- Flute (Fl.)**: Treble clef, mostly rests.
- Clarinet (Cl.)**: Treble clef, mostly rests.
- Bassoon (Bass)**: Bass clef, mostly rests.
- Choir**: Two staves, Treble and Bass clefs. The vocal lines feature dynamic markings such as *mf*, *p*, *più p*, and *pp*.
- 1<sup>st</sup> Harp**: Grand staff (Treble and Bass clefs). The right hand plays a descending arpeggiated pattern, with a *più pp* marking in the final measure.
- 2<sup>nd</sup> Harp**: Grand staff (Treble and Bass clefs), mostly rests.
- Piano**: Grand staff (Treble and Bass clefs). The right hand plays a dense, rhythmic accompaniment of eighth notes, with *pp* markings. The left hand plays a similar accompaniment, also with *pp* markings.

The score is written in a key signature of two flats (B-flat and E-flat) and a common time signature (C). The notation includes various musical symbols such as notes, rests, slurs, and dynamic markings.

Example 5

Musical score for Example 5, featuring woodwinds, strings, and percussion. The score is in G major and 4/4 time. The woodwind parts (HAUTB., COR ANG., CL., CORS.) and strings (CORS., TIMB.) play a melodic line with dynamics *p*, *più p*, and *pp*. The percussion part (TIMB.) has a trill marked *tr* and *ppp*. The string parts are marked *pp* and *ppp*. The score includes a section marked with a circled '9' and the instruction *sur la touche* in the string part.

HAUTB. *p* *più p* *pp*

COR ANG. *p molto dis.*

CL.

CORS *p* *più p* *pp*

TIMB. *tr* *ppp*

*pp* *pp* *pp* *pp* *pp* *pp* *pp*

*à 4 sur la touche* *pp*

Example 6

The image displays two systems of musical notation for an orchestral score. The first system includes parts for Cor A., Tromp., and Timb., with dynamic markings such as *pp* *expressif et soutenu* and *piu pp*. The second system includes parts for Mth., Cor A., Cl., Horn, Tromp., and Timb., with dynamic markings like *pp* and *ppp*. The score is written in a key signature of one sharp (F#) and a 4/4 time signature. The notation includes various musical symbols such as notes, rests, and dynamic markings.

Example 7

### III.- Dialogue du vent et de la mer

Animé et tumultueux (♩: 96)

**2 GRANDES FLÛTES**

**1 PETITE FLÛTE**

**2 HAUTOIS**

**1 COR ANGLAIS**

**2 CLARINETTES en Si $\flat$**

**3 BASSONS**

**1 CONTRE-BASSON**

**1<sup>re</sup> et 2<sup>e</sup> CORN chromatiques en FA**

**3<sup>e</sup> et 4<sup>e</sup> CORN chromatiques en FA**

**3 TROMPETTES chromatiques en FA**

**1 CORNETS à PISTONS en UT**

**1<sup>re</sup> et 2<sup>e</sup> TROMBONES**

**3<sup>e</sup> TROMBONE TUBA**

**1 TIMBALES**

**GROSSE-CAISSE**

**CYBALES**

**TAM-TAM**

**1 GLOCKENSPIEL**

**2 HARPES**

Animé et tumultueux (♩: 96)

**VIOLONS**

**ALTOS**

**VIOLONCELLES**

**CONTREBASSES**

Example 8

The musical score for Example 8 is a page from a manuscript, numbered 21 in a box at the top center. It features a variety of instruments and includes dynamic and performance markings.

- Woodwinds:** Flute (Fl.), Clarinet (Cl.), and Bassoon (Bass.) parts are at the top. They play a melodic line with trills and triplets, marked with *p* and *p très léger*.
- Strings:** Violins (Viol.) and Violas (Vcl.) are in the middle. They play a melodic line with *dim. molto* and *p* markings.
- Percussion:** Cymbals (Cymb.), Glockenspiel (Glock.), and Maracas are at the bottom. The Maracas part is marked *pp*.
- Other:** A section at the bottom is marked *arco* and *mp dim. molto*, and another section is marked *Div.* and *dim. molto*.

Example 9

The musical score for Example 9 is arranged in two systems. The top system includes staves for Horn (H<sup>1b</sup>), Cor Anglais (Cor. A.), Clarinet (Cl.), Horn in F (H<sup>1b</sup>), Trombone (Tromp.), and Timpani (Timp.). The bottom system includes staves for Violin I (Vn. I), Violin II (Vn. II), Viola (Vla.), Cello (Vcl.), and Double Bass (Cb.). The score is in 3/4 time with a key signature of one sharp (F#). The woodwinds and brass parts feature melodic lines with various dynamics such as *p*, *pp*, and *ppp*. The Trombone part includes a section marked "Sourdine" starting in the second measure of the second system. The string parts provide harmonic support with chords and moving lines, also marked with dynamics like *pp* and *p*.

Example 10

The musical score for Example 10 is a complex orchestral arrangement. It features the following parts and markings:

- Violins (Viol.):** 1<sup>o</sup> and 2<sup>o</sup> parts. The 1<sup>o</sup> Violin part includes a section marked "1<sup>o</sup> Solo" and "p *expressif*".
- Violas (Vla.):** Part with dynamic markings *p* and *mf*.
- Celli (Vcl.):** Part with dynamic markings *p* and *mf*.
- Double Basses (Vcl. b.):** Part with dynamic markings *p* and *mf*.
- Harps (Harp):** Two parts, both with dynamic markings *p* and *mf*.
- Flutes (Fl.):** Part with dynamic markings *mf* and *pp*.
- Oboes (Ob.):** Part with dynamic markings *mf* and *pp*.
- Clarinets (Cl.):** Part with dynamic markings *mf* and *pp*.
- Bassoons (Fag.):** Part with dynamic markings *mf* and *pp*.
- Trumpets (Tr.):** Part with dynamic markings *mf* and *pp*.
- Trombones (Tbn.):** Part with dynamic markings *mf* and *pp*.
- Timpani (Tim.):** Part with dynamic markings *mf* and *pp*.
- Conductors (Cond.):** Part with dynamic markings *mf* and *pp*.
- Other markings:** The score includes various dynamic markings such as *p*, *mf*, *pp*, and *ppp*, as well as performance instructions like "p *expressif*", "1<sup>o</sup> Solo", "pizz.", and "arco".



Example 11

Un peu animé 5 au Mouvt

The musical score is divided into two systems. The first system includes the following parts:

- Oboe Fl. (Odeur Fl.)
- Clarinet (Cl.)
- Bassoon (Bass.)
- Horn (Corne)
- Harp (Harpe)

The second system includes string parts with the following markings:

- Unis. (Unison)
- arco (arco)
- pp sur la touche (pp on the touch)
- pp (pianissimo)

The score is marked with dynamics such as *p*, *mf*, and *pp*. A rehearsal mark '5' is located at the top of the first system.