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Abstract

THE PROBLEM OF “LE MINEUR INVERSE” AND ITS RIEMANNIAN ORIGIN FROM THE POINT OF VIEW OF VINCENT D’INDY

DOI: <https://doi.org/10.26176/mosconsv.2020.43.4.002>

The article explores the specific concept of the “inverted minor” suggested by Vincent d’Indy. The reference point for the French musician was the theory of undertones by Hugo Riemann, whom d’Indy esteemed. With that, elaborating ideas of the German theorist, d’Indy extends the principle of symmetry of the series of overtones and undertones to the structure of scales (major and minor), as well as to the functional system of modes. The minor scale is built downward (the highest-pitched tone of the scale becomes the reference tone and the starting point), and the triad build from the fifth sound from the top (the second reference tone of the mode) is considered to be the dominant (opposite to the Riemannian understanding of this chord). However, d’Indy’s system, logic in theory, turns out to be inapplicable in practice without a number of reservations: thus, analysing Beethoven’s music and his own, d’Indy defines the actual pitch position of a minor as if its tonic is not the highest-pitched tone of the scale, but the fifth from the top (which corresponds to natural auditory perception, but does not correspond to the principle of complete symmetry of all components of the major and minor modes proclaimed by d’Indy). Seeking to avoid reproaches for arbitrary construction of quite an unusual scale, d’Indy substantiates the logic of the “inverted minor” from the historical point of view. As an example he gives folk tunes and addresses the reader to the medieval monody; he also points out Beethoven’s attempts to revive the modal system of eight church tones in his late quartets. According to his lectures, collected in the *Cours de composition musicale*, d’Indy considered his mission as a composer and a teacher to follow the similar way, liberating the creative practice from the dominance of the artificial minor.

Keywords: Vincent d’Indy, Hugo Riemann, theory of undertones, problem of minor, principle of modal symmetry

Аннотация

ПРОБЛЕМА «ИНВЕРСИОННОГО МИНОРА» И ЕЕ РИМАНИАНСКИЕ КОРНИ В ИНТЕРПРЕТАЦИИ ВЕНСАНА Д’ЭНДИ

DOI: <https://doi.org/10.26176/mosconsv.2020.43.4.002>

Статья посвящена оригинальной концепции «инверсионного минора», предложенной Венсаном д’Энди. Отравной точкой для рассуждений французского музыканта становится теория унтертонов весьма почитаемого им Хуго Римана. При этом, развивая идеи немецкого теоретика, д’Энди распространяет принцип симметрии рядов обертонов и унтертонов на структуру звукорядов (мажорного и минорного), а также на функциональную систему ладов. Минорный звукоряд строится сверху вниз (устоем и точкой отсчета становится верхний звук гаммы), а трезвучие, отстраивающееся от пятого сверху звука (второго устоя лада), трактуется как доминанта (в отличие от римановской трактовки подобного созвучия). Однако конструкция д’Энди, строящаяся в теории, оказывается неприменимой на практике без ряда оговорок: в частности, анализируя музыку Бетховена и собственную, д’Энди определяет конкретную высотную позицию минора так, будто бы его тоника — не верхний звук гаммы, а пятый сверху (что соответствует естественному слуховому восприятию, но не соответствует провозглашенному д’Энди принципу полной симметрии всех компонентов мажорного и минорного ладов).

Стремясь, очевидно, избежать обвинений в произвольном построении столь необычного лада, д’Энди обосновывает с исторической точки зрения логичность «инверсионного минора». Он приводит в пример народные мелодии и адресует к средневековой монодии, а также обращает внимание на попытки Л. ван Бетховена возродить модальную систему восьми церковных тонов (фр. *modes ecclésiastiques*) в поздних квартетах *cis-moll* и *a-moll*. Свою миссию композитора и педагога д’Энди, судя по его лекциям, собранным в «Курсе музыкальной композиции», видит в том, чтобы идти по аналогичному пути, освобождая творческую практику от засилья «искусственного минора».

Ключевые слова: Венсан д’Энди, Хуго Риман, концепция унтертонов, проблема минора, принцип ладовой симметрии

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THE PROBLEM OF “LE MINEUR INVERSE” AND ITS RIEMANNIAN ORIGIN FROM THE POINT OF VIEW OF VINCENT D’INDY¹

Vincent d’Indy, a representative of César Franck’s school and one of the most popular musicians and theorists at the turn of the 19th–20th centuries was known for his interest in German musical culture: on the one hand, he used as a basis Wagner’s oeuvre and creative method, on the other — the complex of German theoretical concepts. The last feature of d’Indy’s thinking was somewhat ironically noted by C. Saint-Saëns: “Here we have an instance of the practice so often indulged in before the war — and not in music alone — of crossing the Rhine in our search after truth... <...> M. d’Indy gives us elaborate notes on Riemann, Hauptmann, Helmholtz, von Ottingen...” [11, 910]. Especially many ideas d’Indy drew upon Hugo Riemann’s works [13], [14]: among them there is the notion of agogics, the concept of metre and rhythm, the problem of tonal functions, and specific interpretation of acoustic phenomena. Even d’Indy’s perception of such a generic category as harmony is consistent with the Riemannian idea that a chord progression is formed by the simultaneous movement of melodies in different voices (see: [10, 51]): thus, d’Indy strongly praised Émile Ergo (1853–1922), who adhered to similar ideas [7, 260]. In a letter to Saint-Saëns dated April 10, 1919 from Paris, d’Indy complains that Riemann has expounded his conclusions too verbosely, “in 50 large volumes, whereas he could have done this with more clarity on 15 pages” [7, 260, note 3]. It’s evident that studying of extensive treatises by Riemann was difficult but at the same quite necessary for d’Indy.

At the same time, d’Indy was not the only one: at the turn of the centuries, Riemann for a while possessed the minds of French theorists. According to the research by A. Kieffer, «a number of Riemann’s books on harmony had recently been published in French translation — the *Musik Lexikon* in 1899, *Vereinfachte Harmonielehre* in 1900, and the *Harmonielehre*, published in French as the *Manuel de l’harmonie*, in 1902 (though if Marnold is to be believed the book actually appeared in late 1901). It was the beginning of a palpable, if brief, surge of interest in Riemann in the Parisian musical press. Over the course of the next three years, a number of prominent critics, including Paul Landormy

¹ The article is based on the presentation at 17th Online International Conference on Music Theory and Analysis (Rimini, 26–29 November, 2020), titled: *The Riemannian Origin of the Problem of Minor in Vincent d’Indy’s Interpretation*. Translated from Russian by Anna Gorshkova.

and Michel Calvocoressi, would champion Riemann's harmonic theories. Calvocoressi wrote in 1903 that "for developing an instinct for musical logic, correctness of writing, and the exact meaning of the value of sounds, it seems to me that no method is able to rival Riemann's works on harmony" [8, 1]. Let us compare these dates with the dates of the compilation of d'Indy's lectures, which he gave at Schola Cantorum and which were then collected by his students (primarily by Auguste Sérieyx) into several books. As Léon Vallas notes, the materials of the first volume of the treatise were compiled in 1897–98, the first book of the second volume – in 1899–1900, the second book of the second volume – in 1901–02 (see: [12, 54])². Since in the first volume Riemann's ideas had already been elaborated, it can be assumed that d'Indy had got acquainted with the works of the German author earlier than, e.g., Riemann's ardent antagonist Jean Marnold, who from 1902 to 1906 wrote a number of articles in which he refuted both acoustic and perceptual-mental substantiation of undertones (see: [8, 2]). It is known that Riemann corresponded with d'Indy (e.g., Gilles Saint Arroman mentions a letter dated October 11, 1903, which was sent by Riemann from Leipzig (see: [10, 71]). In the letter, Riemann tells that he is preparing the sixth edition of the *Musiklexikon*, and asks d'Indy to send him an autobiographical essay, a complete list of his compositions, and, in addition, a list of names of French musicians that Riemann did not include in the fifth edition³.

The correlation of d'Indy ideas with those of Riemann is not as straightforward as it might seem at first glance. According to the conclusions of Stefania Venturino, "Identifying similarities between d'Indy's dualism and Hugo Riemann's theories, contemporaneous critics condemned d'Indy as the "importer, the champion, and the vulgariser" of Riemannian theory <...>. Robert Gjerdingen <...>, Alexandra Kieffer <...>, and Andrew Pau <...> have perpetuated d'Indy's reputation as a Riemannian epigone, arguing that he merely repackaged German ideas for French consumption" [13]. However, according to Venturino, the composer in his *Cours de composition musicale* "offers a version of harmonic dualism profoundly different from Riemann's account" [13]. The researcher notes, that "d'Indy synthesises Riemann's speculative, synchronic impulses and François-Joseph Fétis's aesthetically sensitive, historiographical tendencies, proposing his own dualist system rooted in the circle of fifths" [Ibid.]. The specificity of d'Indy's "dualist system" is related not only to the interpretation of the circle of fifth, but, first of all, to the reception of the Riemannian theory of undertones (French 'tones inférieures') [5, 100]). The latter is reflected in the specific concept of minor suggested by d'Indy.

I

From the theoretical perspective d'Indy considers two types of minor. The first he calls the ordinary minor ("mineur *vulgaire*" [5, 101]). Such a minor is characterised by the conventional structure of the scale, built upwards from the first scale step ("degré"), coinciding with the tonic of the mode. The second type of minor is the

² The texts were published in 1903, 1909, 1933. Therefore, the 2nd book of the 2nd volume was published posthumously and the 3rd volume of the *Cours* was prepared for publication by D'Indy's student Guy de Lioncourt.

³ See: *Riemann H.* [Autograph postal card signed, dated: Leipzig, 11 October 1903, to Vincent d'Indy, 1903 Oct. 11] // The Morgan Library & Museum. James Fuld Collection (FULD). James Fuld Music Collection (planned acquisition by Pierpont Morgan Library, Dept. of Music Manuscripts and Books). Record ID: 1945–95. 1 p.

one which distinguishes d’Indy’s system. It is the “inverted” minor (“mineur *inverse*” [5, 100]). Its name is related to its pitch, scale, and functional structure being determined by the principle of *complete mirror symmetry* regarding a major mode.

The idea of the “inverted minor” obviously stems from Riemann’s acoustic concept. As it is known, the German scientist considers a major triad, or Oberklang (ein Durakkord), to be a derivative of the series of overtones, and a minor one, or Unterklang (ein Mollakkord) [9, 6], to be a derivative of the series of undertones, and these “harmonischen Naturskalen,” have the strict mirror symmetry [9, 3, 5]. In the similar way, d’Indy pairs the major “perfect chord” (“accord parfait majeur” [5, 98]), based on the phenomenon of overtones and the “upper resonance” (“la résonnance supérieure,”) and the minor “perfect chord” (“accord parfait mineur” [5, 100]), generated by the phenomenon of the “lower resonance” (“la résonnance inférieure”). The root of the major chord is the lowest-pitched tone (“primo ratio,” “der feste Punkt,” “die *Prim*” [9, 2], “Hauptton” [9, 7] according to Riemann’s terminology; in d’Indy’s treatise it is “prima ratio,” “point de départ,” “prime” [5, 94], “son prime” [5, 98, 100]), the root of the minor one is the highest-pitched tone [9, 6], [5, 100]⁴.

Further, each such chord correlates with the corresponding scale, constructed from the first tone of the chord: in a major — upwards, in a minor — downwards. In this case, d’Indy extends the idea of complete symmetry to the phenomenon of a scale: an ascending major scale from “C” (“Ut”) with a tone-tone-semitone-tone-tone-semitone structure acquires a “mirror counterpart” in a descending minor scale from “E” (“Mi”) with an identical structure [5, 101]. According to Venturino, while inventing symmetrical, with regard to the interval structure, scales d’Indy could draw upon A. J. von Oettingen’s ideas [14]. However, the perceptual substantiation of both scales d’Indy actually takes from Riemann’s treatise: if Riemann proposes to “remove” from the series of overtones and undertones those components that are not included in “our tone system” (“unser Tonsystem”; i.e. overtones from the 8th to 16th, especially the 7th, 11th, 13th, 14th), forming intervals less than a semitone [9, 46], then d’Indy proposes to realise a similar process to balance the interval structure of each of the given scales and also emphasises the scientific basis of it [5, 102–103], appealing both to the mathematical substantiation (raisonnement mathématique) [5, 104], and to the peculiarities of auditory perception (to the “human ear” — “L’oreille humaine” [5, 103]). With that, as the basis for all potential diatonic scales Riemann considers a diatonic tone row (“die diatonische Tonleiter,” “Grundskala” [9, 1]), which has been used for thousands of years and is grounded in natural laws, therefore, it is substantiated by indisputable logic (see: [9, 1]). In the same way, d’Indy regards the “diatonic scale” (“la gamme diatonique”) as the matrix for deriving two musical scales (“deux échelles musicales”) according to the “perfect symmetry” (“la parfaite symétrie”) of two motion vectors: ascending and descending [5, 101].

But the most interesting aspect of the creative reception of Riemannian notions lies in the system of functions derived by d’Indy for the “inverted minor.” In this case, there is not only a restatement of the ideas of the German author, but also a certain elaboration of them. Riemann, as it is well known, discusses two systems of functions. The first is for a major triad as the tonic, the second is for a minor one. The “mirror-like” nature of

⁴ D’Indy actually makes the exact French translation of Riemann’s work, without indicating the source. Cf. [9, 2] and [5, 94].

the systems is associated with two aspects. First — the existence of the harmonic variant of a function: for a major — the harmonic subdominant, for a minor — the harmonic dominant, which are built in the opposite direction regarding the ordinary variants of the same functions (e.g., the harmonic subdominant in C major is built downwards from the tone C, the diatonic subdominant in the same key — upward from F) [9, 6]. Second — the hierarchy of the relation of functions to the tonic of the mode: in a major, the “upper dominant” (“Oberdominante”) as “the upper major chord [built upwards] from the sound of its upper fifth” (“der Oberklang [Durakkord] seiner Oberquinte” — i.e., the fifth built upwards from the tonic sound) is the chief auxiliary of the tonic; in a minor, the closest relation is established, correspondingly, between the tonic and the natural “lower dominant” (“die Unterdominante”), understood as the “lower [minor] chord from the sound of its lower fifth” (“der Unterklang [Mollakkord] seiner Unterquinte”), which is obviously built downwards [9, 8]. Evidently, such a mirror disposition of the dominant in a major and the subdominant in a minor is associated with the opposite constructing of fifths upwards and downwards from the tonic sound, according to the rows of overtones and undertones. Probably, d’Indy, taking this feature of the Riemann system as a starting point of his reasoning, decided to bring the idea of symmetry to the utmost comprehensiveness, having established a complete inversion of the functions of the dominant and subdominant in the “mineur inverse” both with respect to a major and the ordinary minor (“mineur vulgaire”): the dominant of the first is an equivalent to the subdominant of the second, and vice versa [5, 110–112], which from the point of view of scale structure and functionality is arranged in ordinary way.

“In a *major* mode (the upper resonance): 1) the chord, which serves as *the starting point*, has the *tonic* function; 2) the chord of *the upper fifth* (l’accord de *quinte supérieure*) is considered to be *the dominant*; 3) the chord of the *lower fifth* (l’accord de *quinte inférieure*) is considered to be *the subdominant*. In a *minor* mode (the lower resonance) the *initial* chord (l’accord *origine*) serves as the *tonic* as well; but, since its *root* (*prime*) is *the highest-pitched tone* (note *aiguë*), then it is the chord of *the lower fifth* which plays the role of *the dominant*, and the chord of *the upper fifth* which serves as *the subdominant*” [5, 109–110]. On the issue of functions, d’Indy argues, therefore, more radically than Riemann (see: [9, 8, 30–31]).

However, such a realisation of the strict mirror symmetry has a problem: having inverted the entire structure of the scale of a mode and the entire system of functions, d’Indy would inevitably have come to the conclusion that in the “inverted” A minor the sound E, not A becomes the tonic (not the tonic chord, but the “root”) of the mode. In other words, the interval structure of the scale of the E Phrygian (or the third tone [Tonus III] — aka the second authentic mode — deuterus authenticus, if we use the medieval system of modes) with the finalis E is equal to the descending “inverted” minor of d’Indy, which, according to strict logic, should have been called not A, but E minor. Another version of the interpretation of the “inverted” minor, proposed by d’Indy, could consist of establishing an equivalence between it and Tonus IV (deuterus plagalis), transposed down by a fifth (but taking into account the ascending construction of the latter). In this case, the scale with the ambitus from E to E and the finalis A formally coincides with the analogous scale and the reference tone (the tonic sound) of the “inverted” A minor; with such an interpretation, the tonic sound A implied by d’Indy is preserved (but in the case of complete mirror symmetry, to the “inverted” minor would have corresponded

a mode with ambitus from E to E an octave higher and with the reference tone H, which was absolutely impossible in the medieval-Renaissance system).

Thus, a contradiction emerges: either, “reflecting” C major in a mirror, d’Indy should have received the inverted “E minor” as its full “double”; or, keeping the name “A minor” for the resulting mode, d’Indy himself does not adhere to the strict principle of complete symmetry, which he, in fact, declared, since the root of the tonic triad turns out to be E (E – C – A), and the root of the entire system, the tonic of the mode is the sound A, which gives the mode its name. This contradiction will take place in creative practice of d’Indy as well, and not only in theory.

II

To substantiate his ideas from the historical point of view, d’Indy identifies the usage of the “inverted minor” in different eras starting from antiquity [5, 102], and analyses the attempts of revival of old mode systems in the late quartets by Beethoven [6, 247–252]. D’Indy does not discourse extensively about antiquity and the Middle Ages. He only states that the concept of minor that he has suggested is not new: “many monody tunes of antiquity and the Middle Ages were written in this mode” [5, 102]. Apparently, d’Indy was well acquainted with the descending structure of Greek tetrachords: he states that later it was “through the false application of harmony theories, in which bass becomes the general reference point, that [true] minor was replaced by the minor we have, with its mixed, uneven scale” [ibid.].

D’Indy considers either the beginning of the 17th century (see: [5, 102]) or the Renaissance to be the historical moment when the transformation of the minor scale, so sad for musical practice, took place. According to d’Indy, it is precisely the Renaissance era that is replete with “false concepts of harmony” (“les fausses théories harmoniques”) [5, 217]: firstly, because “everyone tries to classify sonorities as best he can, and laboriously establishes rules that he is forced to break in practice” [ibid.], i.e., the theory and practice radically diverge; secondly, because the ideas of antiquity were misunderstood due to incorrect translations.

D’Indy sees “the system of absolute correspondence of relative scales – major and minor” [ibid.], as one of these “false concepts.” Therefore, promoting the principle of symmetrical arrangement of pitch systems, d’Indy does not consider it appropriate in all cases. “Ideas of conventional and slavish symmetry” (“Les idées de symétrie étroite et servile” [5, 217]) gave rise to “two modal scales, two perfect chords [i.e., triads] and cadences” with the “*similar ascending structure*”⁵, which emerged due to misunderstanding of “the phenomenon of the *lower resonance*” (“la résonnance *inférieure*”) [5, 217–218]. D’Indy does not explain what he thinks this misunderstanding is, but concludes that as the result of it an “ascending minor scale” emerges (“la gamme mineure ascendante”) “with the alteration of the “sensitive” [note] (G sharp)” (“avec altération de la sensible” (sol #) – “a hybrid, artificial scale, not corresponding to the norms,” which “still exists in our music, where it occupies the place intended by law for the true minor scale in the inverted mode (à la véritable gamme mineure en mode inverse), in which, in addition, most of the motets (motets de mode mineur) of the 15th and 16th centuries having the minor mood are written” [5, 218]. Therefore, d’Indy considers it logical to name the

⁵ Constructed in one direction.

Renaissance era “disastrous” (“néfaste”) and “troubled” (“trouble”), however, on the other hand, generating new art (“art nouveau”) [ibid.].

Convinced that the “artificial minor” has been limiting the “musical horizon” “for at least a century and a half” [6, 255], d’Indy nevertheless comes to the conclusion that some composers keenly perceived the situation and strove to find more natural and logical solutions to the problem of mode. Among such composers, it is Beethoven whom d’Indy considers to be an indisputable authority and the most active innovator: as it is known, d’Indy credits him with the discovery of the so-called “cyclic principle” (“le principe cyclique”), the most important for the composition of the modern times; according to the French musician, it was Beethoven who felt the problem of liberating the modal system from the bonds of the “ordinary” major (“banal majeur”) and the “artificial” minor (“artificiel mineur”) [6, 255].

D’Indy considers the first theme of the slow movement (Molto adagio — Andante) from the late quartet op. 132 in A minor to be an example of applying of a modal system alternative to a major. Modern researchers agree with d’Indy when it comes to the statement of uniqueness of Beethoven’s experiments: e.g., according to L. V. Kirillina, the obvious in Adagio “attempt to mentally penetrate the musical world of the 16th century is a very bold step on the part of a composer of the classical era. We will not find anything like this Adagio in the music of the First Viennese School” (see: [1, 456]).

About Beethoven’s modal novations themselves d’Indy speaks carefully, defining the mode of the first theme (Adagio) as “Lydian” or alleged Lydian (“mode ‘lydien’ ou prétendu tel”) [6, 255]. The quotation marks on the word “Lydian” require comment. Beethoven himself prefaced the slow movement of the quartet with the following remark: “Heiliger Dankgesang eines Genesenden an die Gottheit. In der Lydischen Tonart” (“Holy song of thanksgiving of a convalescent to the Deity, in the Lydian mode” [1, 453]). As L. V. Kirillina notes, referring to Warren Kirkendale, Beethoven knew the treatises by Zarlino and Glareanus, in which the ethos of modes was, among other things, considered; Zarlino, referring to Cassiodorus, suggested using the Lydian mode as a means of deliverance from bodily and mental ailments [1, 454]. Therefore, Beethoven’s modal strategy is completely unambiguous. Another thing is that researchers have different interpretations of the very essence of the Lydian mode. Kirillina’s monograph summarises two opposite interpretations. According to one, the Lydian mode “should be interpreted not as folk, but as a church one, where the skill of a composer of counterpoint consisted precisely in avoiding the tritone interval (“the devil in music”) in melody and harmony while touching on the high fourth degree” [1, 455]. Another point of view comes down to the fact that “in this case the Lydian mode is indicated only through applying the pure H instead of B — and, therefore, the specific modal colour is very weakly expressed here, and in general we have a natural major, represented only by not quite ordinary harmonic progressions” [1, 454]. The last point of view corresponds with d’Indy’s opinion, who notes: “What Beethoven defines, a bit superficially, as the ‘Lydian mode’, it’s indeed our *mode F* or the 5th Gregorian mode, represented by the natural scale F — A without alterations: one needs just listen to the harmonies of the chorale in their entirety in the form of *figured bass* to understand that this phrase doesn’t have a special modal inclination and that the *natural H* is always treated as the *major third* of the *dominant* to C, i.e. as the *dominant modulation in the absolute major*” (“comme une modulation à la *dominante* dans le *mode majeur absolu*” [6, 252, note 1]).

If, regarding the authenticity of Beethoven’s “Lydian mode” replacing the usual major, d’Indy, as we see, after all hesitates, then Beethoven’s merit in terms of applying a modal system alternative to the “artificial” minor is in d’Indy’s view undoubtable. An example, in d’Indy’s view, is Fugue, which opens the string quartet op. 131 in C sharp minor. According to d’Indy, the subdominant answer in the fugue is due to the implementation of the “inverted” minor, in which, as already mentioned, there is a “mirroring” of functions (its dominant is the subdominant in the “ordinary” minor). In other words, it turns out that Beethoven actually applied the “dominant” answer in the system of the “inverted” minor (see: [6, 255]). The indication of the inverted minor is the usage in the scale of the sound d instead of d sharp. The only difficulty here is that, following d’Indy’s logic, it is the tonic of the mode that should be a “perfect minor triad” – C sharp – A – F sharp, read from top to bottom, with the root C sharp (and not G sharp – E – C sharp). Nevertheless, d’Indy is sure that it is Beethoven’s modal experiments that take place in the fugue that explain the tonal plan of the entire quartet, including the presence in it of the whole movement in D major and the transposition of the secondary theme in the recapitulation of the finale in D major [6, 247, 250].

III

D’Indy considers his goal to implement the “mineur inverse” in his own composing practice for renewing of the style. This conclusion can be made judging on the author’s analysis of the Scherzo from the Second Symphony [6, 176]. D’Indy points out that “The Scherzo is written in the inverted mode from D” (“Le Scherzo <...> est <...> en mode mineur inverse de re”). Such a choice of mode, judging by the sounding of the initial melody, is preconditioned by its intonation structure (“in the spirit of a folk tune”: “son thème a l’aspect d’un chant populaire”, see Example 1)⁶. So, considering folk samples from the Vivarais region, d’Indy noted not without reason that these tunes are characterized by a special modal structure, similar to the “old modality” (“la modalité ancienne”), which is explained in the Riemann system (!) [4, 425].

Scale: D – E flat / E F G A B C D

1

Modéré (♩ = 76) 1^o Solo

3 Flûtes

1^{er} Alto solo

Altos

Violoncelles

⁶ The score is taken from the ed.: *Indy, V. d'. Deuxième symphonie en Si b / Partition d'orchestre*. Paris: Durand & Fils, 1904. P. 99.

The second degree of the scale is variable; the mode thus fluctuates between D Phrygian and D Aeolian. The author's interpretation of the mode as D inverted contains the noted above contradiction: in fact, in accordance with the composer's own explanations provided in the first part of the *Cours de composition musicale*, the scale with E flat should give the inverted G minor with the ambitus of the scale from D4 to D5 (the "root" of the mode is G). In this case, d'Indy is apparently trying to go even further and introduce the principle of total symmetry of a major and the inverted minor, giving the tonic function to the upper tone of the scale (let us remind, that the scale of the inverted minor is read like the ancient Greek modes). But the scale with E and B gives the inverted D according to the original interpretation (to the first part of Cours; then the assumed ambitus is A4—A5, the reference tone is D). That raises a question, which maybe haven't got an exact answer: which version of the scale (with the second degree E flat or E) in this case is more consistent with the author's interpretation of the inverted D:

Subject to the principle of complete symmetry of a major and the inverted minor — with E flat (then in the Second Part of the Second Volume of the Cours there is an implicit development of the ideas presented earlier);

With incomplete symmetry (as shown in the first part of the Cours) — with E.

Chord progression (see Example 2).

Functions: The Tonic — the 2nd inversion of the Dominant seventh to the Subdominant relative key — the Subdominant relative key — the 1st inversion of the Subdominant — the Tonic.

It is logical to interpret the quartal sonority in the second bar as formed by the linear movement of voices.

2



According to d'Indy, apparently, the functions should be like this:

Minor Tonic (with the root A) — the second inversion of the dominant to the third degree (since in the descending inverted minor scale, B = the third degree from the top; F is the root, since major chords have the lower tone of the fifth as a reference sound) — relative key to the Dominant (with the root B) — Dominant seventh chord (with the root D, the chord is D—B—G—E) — Tonic (with the root A). Applying d'Indy's interpretation, we get, in fact, an authentic cadence (!) instead of a plagal one. Do we hear it that way? The answer is likely to be unequivocally negative. However, in an essay about songs from Vivarais d'Indy motivates the special status of a plagal (in generally accepted terms) cadence by the fact that "every chord of the vulgar dominant" ("tout accord de dominante vulgaire") — that is, the "ordinary" dominant — is combined in terrible way with harmonies determined by the "lower resonance" (row of undertones) ("*la résonnance inférieure*"): when harmonizing folk tunes, "the so-called plagal cadence <...> is the true perfect cadence of this modality and the only one compatible with the nature of the melodies formed by it" ("*la cadence dite plagale <...> est la véritable cadence parfaite de cette modalité et la seule compatible avec la nature des mélodies formées par elle*" [4, 425–426]).

It is interesting to compare the harmonisation of the theme of the Scherzo with the version offered by Paul Dukas (see Example 3)⁷ in the opera “Ariane et Barbe-Bleue” (1907). As it is known, d’Indy dedicated the Second Symphony (1903) to Dukas, who, as Léon Vallas notes, “borrowed” the theme of the Scherzo, turning it into the so-called leitmotif of Bluebeard’s captives (see: [12, 251]). Five former wives of the Duke, being imprisoned in a dungeon, sing a strange song about the five daughters of the deceased black sorceress who were looking for a way out.

3

LE CHANT SOUTERRAIN

Les cinq fil - les d'Or - la - mon - de (La fée noire est mor - te)

Les cinq fil - les d'Or - la - mon - de Ont cher - ché les por - tes

In Dukas’s opera, d’Indy’s theme appears renewed from the point of view of rhythm-melodic structure: the variability of the second degree of the scale is gone; the strictly maintained Phrygian mode in the melody endows the tune with gloom and hidden uneasiness. But harmonisation contains the natural dominant in an imperfect cadence – and therefore even a hint of polymodal harmony (the Phrygian in the melody and the Aeolian minor in orchestral accompaniment, in the unsteady tremolo of violas and violins).

Functions: the Tonic – relative key to the Tonic – a Neapolitan (chord) = (tritone double of the dominant) – the alternated Dominant and the chain of tertian additional constructive elements.

Despite the great refinement of the harmonic solution proposed by Dukas, both composers obviously emphasise the low second degree of the scale and the Phrygian flavour, which inevitably arises when using the “inverted minor” (with complete symmetry of all functions of the tones of the scale in relation to a major), but which can be achieved without realisation of such an extravagant mode.

Anyway, Dukas considered the Second Symphony by d’Indy “the most significant musical event of the year” [3, 608], and the modern researcher A. Deruchie not accidentally noted that the Second Symphony was a kind of summarising of the compositional regularities which d’Indy taught at the Schola cantorum (see: [2, 242]): we also see here an embodiment of his aesthetic credo – the representation of symphonic music as “la musique pure” (“the pure music”); and the masterful application of the “cyclic principle”; and, perhaps, an attempt to illustrate the original concept of mode.

⁷ The score is taken from the ed.: [Dukas P.] Ariane et Barbe-Bleue: conte en trois actes / poème de Maurice Maeterlinck; musique de Paul Dukas: Partition pour chant et piano réduite par l’Auteur. Paris: A. Durand & Fils, 1906. P. 72.

Conclusions:

In the theoretical aspect, one can notice some incoherence of d'Indy's discourse: the composer extends the principle of mirror symmetry to the scale and the functional structure of a major and the inverted minor, but not to the tonic sound of the latter. But a little later d'Indy was captivated by the idea of total symmetry of the two main modes. Perhaps the concept of the inverted minor remained just briefly outlined.

In the practical aspect, the implementation of the inverted minor should, apparently, enrich the individual style of the composer, diversify the modal palette and return the music to the path of natural evolution, interrupted, according to d'Indy, by the invasion of the "vulgar" minor in the Renaissance era. However, a theoretical idea, not related to the actual laws of perception, has remained only a handsome speculative construction. We might as well explain all the examples in which d'Indy finds the "inverted minor" in more familiar and natural ways.

Использованная литература

1. Кириллина Л. В. Бетховен. Жизнь и творчество: в 2 т. Том II. М.: Научно-издательский центр «Московская консерватория», 2009. 590 с.
2. Deruchie A. The French Symphony at the Fin de siècle: Style, Culture, and the Symphonic Tradition. A thesis submitted to McGill University in partial fulfillment of the requirements of the degree of Ph. D in Musicology. Montreal, Schulich School of Music, McGill University, 2008. 368 p.
3. Dukas P. La Deuxième Symphonie de Vincent d'Indy // Les écrits de Paul Dukas sur la musique / Avant-propos de G. Samazeuilh. Paris: Société d'édition française et internationales, 1948. P. 608–610. (Musique et Musiciens / Collection publiée sous la direction de F. Bonnet-Roy, R. Dumesnil, B. Gavoty).
4. Indy V. d'. Chansons populaires du Vivarais op. 52 // Écrits de Vincent d'Indy. Vol. 1: 1877–1903 / rassemblés et présentés par Gilles Saint Arroman. Arles: Actes Sud / Palazzetto Bru Zane, 2019. P. 422–446.
5. Indy V. d'. Cours de composition musicale. Premier livre / Rédigé avec la collaboration de Auguste Sérieyx. 6e Édition. Paris: Durand et Cie, 1912. 228 p.
6. Indy V. d'. Cours de composition musicale. Deuxième livre — seconde partie / Rédigé avec la collaboration de Auguste Sérieyx. Paris: Durand et Cie, 1933. 340 p.
7. Indy V. d'. Méthode Ergo pour l'étude simultanée de l'harmonie et du contrepoint // Écrits de Vincent d'Indy. Vol. 1: 1877–1903 / rassemblés et présentés par Gilles Saint Arroman. Arles: Actes Sud / Palazzetto Bru Zane, 2019. P. 260–261.
8. Kieffer A. Riemann in France: Jean Marnold and the "Modern" Music-Theoretical Ear // Music Theory Spectrum. Vol. 38. No. 1 (Spring 2016). P. 115.
9. Riemann H. Vereinfachte Harmonielehre oder die Lehre von den tonalen Funktionen der Akkorde. Zweite Auflage. London: Augener, s.d. VIII, 213 S. (Augener's Edition, No. 9197).
10. Saint Arroman G. Introduction // Écrits de Vincent d'Indy. Vol. 1: 1877–1903 / rassemblés et présentés par Gilles Saint Arroman. Arles: Actes Sud / Palazzetto Bru Zane, 2019. P. 11–75.
11. Saint-Saëns C. The Ideas of M. Vincent d'Indy // C. Saint-Saëns. Outspoken Essays on Music / authorised translation by Fred Rothwell. London: Kegan Paul, Trench, Trubner; New York: E. P. Dutton, 1922. P. 151.

12. Vallas L. Vincent d'Indy. T. 2: La maturité, la vieillesse (1886–1931). Paris: Albin Michel, 1950. 394 p.
13. Venturino S. Beyond the Rhine: Harmonic Dualism in Vincent d'Indy's Cours de composition musicale: Abstract. URL: <https://www.esm.rochester.edu/theory/files/SMT-Abstract-2019-Venturino.pdf> (дата обращения: 01.10.2020).
14. Venturino S. Beyond the Rhine: Harmonic Dualism in Vincent d'Indy's Cours de composition musicale: Handout. URL: <https://www.esm.rochester.edu/theory/files/Venturino-Handout-ETC-25-October-2019.pdf> (дата обращения: 01.10.2020).

References

1. Kirillina, L. V. (2009). *Betkhoven. Zhizn' i tvorchestvo* [Beethoven. Life and Oeuvre], Vol. II. Moscow, Nauchno-izdatel'skiy tsentr “Moskovskaya konservatoriya”. (In Russian).
2. Deruchie, A. (2008). *The French Symphony at the Fin de siècle: Style, Culture, and the Symphonic Tradition*, Ph. D. in Musicology Thesis. Montreal, Schulich School of Music, McGill University.
3. Dukas, P. (1948). La Deuxième Symphonie de Vincent d'Indy. In *Les écrits de Paul Dukas sur la musique*, avant-propos de G. Samazeuilh, 608–10. Paris, Société d'édition française et internationales.
4. Indy, V. d'. (2019). Chansons populaires du Vivarais op. 52. In *Écrits de Vincent d'Indy*, Vol. 1: 1877–1903, rassemblés et présentés par Gilles Saint Arroman, 422–46. Arles, Actes Sud / Palazzetto Bru Zane.
5. Indy, V. d'. (1912). *Cours de composition musicale. Premier livre*, rédigé avec la collaboration de Auguste Sérieyx. 6^e Édition. Paris, Durand et Cie.
6. Indy, V. d'. (1933). *Cours de composition musicale. Deuxième livre — seconde partie*, rédigé avec la collaboration de Auguste Sérieyx. Paris, Durand et Cie.
7. Indy, V. d'. (2019). Méthode Ergo pour l'étude simultanée de l'harmonie et du contrepoint. In *Écrits de Vincent d'Indy*, Vol. 1: 1877–1903, rassemblés et présentés par Gilles Saint Arroman, 2601. Arles, Actes Sud / Palazzetto Bru Zane.
8. Kieffer, A. (2016). Riemann in France: Jean Marnold and the “Modern” Music-Theoretical Ear. *Music Theory Spectrum*, Vol. 38, No. 1, 115.
9. Riemann, H. (n. d.). *Vereinfachte Harmonielehre oder die Lehre von den tonalen Funktionen der Akkorde*. Zweite Auflage. London, Augener.
10. Saint Arroman, G. (2019). Introduction. In *Écrits de Vincent d'Indy*, Vol. 1: 1877–1903, rassemblés et présentés par Gilles Saint Arroman, 11–75. Arles, Actes Sud / Palazzetto Bru Zane.
11. Saint-Saëns, C. (1922). The Ideas of M. Vincent d'Indy. In C. Saint-Saëns *Outspoken Essays on Music*, authorised translation by Fred Rothwell, 151. London, Kegan Paul, Trench, Trubner; New York, E. P. Dutton.
12. Vallas, L. (1950). *Vincent d'Indy*, T. 2: La maturité, la vieillesse (1886–1931). Paris, Albin Michel.
13. Venturino, S. (2019). *Beyond the Rhine: Harmonic Dualism in Vincent d'Indy's Cours de composition musicale*, Abstract. Available at: <https://www.esm.rochester.edu/theory/files/SMT-Abstract-2019-Venturino.pdf> (accessed 01.10.2020).
14. Venturino, S. (2019). *Beyond the Rhine: Harmonic Dualism in Vincent d'Indy's Cours de composition musicale*, Handout. Available at: <https://www.esm.rochester.edu/theory/files/Venturino-Handout-ETC-25-October-2019.pdf> (accessed 01.10.2020).