島 岡 理 論 の 英 訳 (2)

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Translation: The Music Theory of Yuzuru SHIMAOKA

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本稿は『総合和声』「原理篇」の第 2 章「和音のゆれ」の翻訳である。この章では音楽における重要な要素である和音に焦点を絞り，それに関連する概念を原理的に整理し説明している。

まず，西欧古典音楽史における「旋法」の単旋律の世界から「和声」ないし「調性」の世界がどのような原理により生じてきたかということを島岡理論の視座で解明し，次いで和声の構成単位である個々の和音の継次関係（和音進行）を「ドミナント進行」を中心軸として整理し，和音進行の単位であるカデンツを「和音のゆれ」と定義し，最後に古典的な調性（長調と短調）の特質をまとめている。この章において初めて島岡の重要な観点および方法論である「通時的な和声技法史の共時的構造化（a synchronic construction of the diachronic history of techniques of harmony)」および「共時的な調性原理の通時的歴史化（a diachronic historicization of synchronic tonality principle)」の一端が示される。これらの語の英訳は島岡の講演：「国立音楽大学　70周年記念　基調講演：音楽理論とは何か？―私の場合」(1996) の講演記録に出てくるものである。

なお英訳文確定については「島岡理論の英訳 (1)」と同じく原著者による校閲とカナダ人作曲家 John Jambus Cole によるネイティブ・チェックが行われた。また原文において他章へ言及している部分は割愛した。原文の脚注は本稿最後に移動した。

Chapter 2　Chord Sway

1　From Mode to Key

(1)　The Finalis and the Seven Kinds of Modes

The diatonic scale in itself does not have a center as all tone degrees are equal to one and another.　However, once a certain tone degree is fixed as **the central tone**, an order is produced among tone degrees [according to every note's intervalic relationship to this central tone], and the diatonic scale becomes "an systematic organism." We call such a "system of tone degrees organized by the fixing of a central tone" **a mode**.

The **finalis** played a role as the central tone in the pre-harmonic music of single melody by fixing a mode.

Theoretically, **seven kinds of modes** can be produced by fixing each of the seven tone degrees of the diatonic scale as a finalis.　In practice, except the Locrian mode, six modes were used in the Gregorian chant of the Middle Ages.　We call these **the Gregorian modes**.

Diatonic Scale

W　W　W　S　W　W　S　W　W　W　S　W　W　S

7 Kinds of Mode (Note)

(1) Lydia　　　　　　　　　　　　　　　　　(the mode of Fa)
F W　W　W　S　W　W　S　　　　　　　　note

(2) Mixolydia　　　　　　　　　　　　　　(the mode of Sol)
F　　　S　　　S　F

(3) Aeolia　　　　　　　　　　　　　　　　(the mode of La)
F　　S　　　S　　F

(4) Locria　　　　　　　　　　　　　　　　(the mode of Si)
F S　　　S　　　F

(5) Ionia　　　　　　　　　　　　　　　　(the mode of Do)
F　　　S　　　S　F

(6) Doria　　　　　　　　　　　　　　　　(the mode of Re)
F　　S　　　S

(7) Phrygia　　　　　　　　　　　　　　　(the mode of Mi)
F　S　　　S　　　F

Note: We may call these seven kinds of modes the mode of Fa, Sol and so on by the syllable name of each finalis.

(2)　From Single Melody to Harmony

Monophony consists of only **the consecutive relations** of many tones.　It does not contain any **simultaneous relations**.

(a)　A Gregorian Chant.

[Solo]　　　　　　　　　　[Chorus]
1. Vi - cti - mae　pa - scha - li　lau - des　　im - mo - lent　Chri - sti - a - ni.

Simultaneous relations appeared with the birth of **polyphony**.　Now, within the tone relationships, the **vertical** (simultaneous) and **horizontal** (consecutive) relations coexist.

(b)　Parallel Organum (9th century).

plain song

organum part

1. Rex　cae - li　Do - mi - ne　ma - ris　un - di - so - ni,
2. Ti - ta - nis　ni - ti - di　squa - li - di - que　so - li.

However, in the earliest period of polyphony **the independence of parts** was not fully pronounced.   In the example above (parallel organum) most of the simultaneous relations consist of **parallel motions of over-fusing intervals** (consecutive 1st, consecutive 4th).   Therefore, it is more like a single melody with added thickness of timbre than a two part polyphony in a true sense (**cf. footnote 1)**).

Over the course of time, **the independence of each part was achieved** only after **oblique motions and contrary motions became frequently used** in simultaneous relations.   This was the birth of **polyphony** in the true sense.

(c)   A Conductus (13th century) "Chaste Bride."

(d)   Instrumental dance music (13th century) Estampi.

Note: This is an example of the key signatures which were used often in the music before the 16th century.   **Different signatures** were used **for two parts** respectively.

But in the early polyphony (9th–13th centuries), the regulating principle defining simultaneous relations was the "interval," not the "chord."   Therefore, it was not yet "a harmonic music" based on "chords."

In the 14th and 15th centuries, distinct "chord" forms began to appear in the polyphony.

(e)   Dufay (c .1400–1474)

Note: concerning the reason why symbols used in this book for Analysis can be applied to the polyphonic (harmonic) music before the establishment of classic tonality.

The sounds of "triads in the fundamental position" are heard throughout the example above.   These are clearly intentional constitutions modeled after the **natural 3 chord**, and cannot be thought of as incidental formations resulting from "the addition of intervals."

In this way, **triads** as "indivisible harmonic units" were gradually established in the 15th and 16th centuries and

"harmonic music" in the original sense was simultaneously formed (**note**).

As observed in the chord analysis of the example above, in "harmonic music," **the chord** is considered as "a field in which simultaneous tone movements occur."　Each field emerges successively in its assigned span of time being independent from the movements of each part or the simultaneous tone sets at each moment.　It is possible to grasp (describe) the mutual relation of successively emerging chords (chordal fields) as the relations between the roots of the chords (**note**).

> **Note:** It was Rameau (1683–1764) who theoretically formulated and established the general idea of a "chord" ("Treatise on Harmony" 1722).　However, in the history of music, "theory" follows "practice."　The proper function of "Theory" is to confirm (induce) as faithfully as possible and formulate (deduce) as concisely as possible the principles which are already implicitly approved in "practice."

(3) From Finalis to Close Chord

In monophony the end of a phrase is brought about by **a finalis**.　The finalis is the point of stillness or stability which results from the [temporary or final] cessation of a series of tone movements.

As monophony evolved into harmonic music of many voices, the finalis was transformed into **a close chord**. The [momentary or final] point of stillness or stability of a series of harmonic movements is termed a close chord. Here we can recognize the harbinger of the "tonic chord" (a stable chord) which appears later in tonal music.

But in early harmonic music (from the 14th century to the beginning of the 16th century) the doubled tone of the perfect eighth or the perfect fifth lacking the third was used frequently at cadence.　However, considering the characteristics of the style as a whole, it is clear that this functions as "a close chord" in an abbreviated form.

From the beginning of the 16th century many close chords took the form of a triad.　In this case, if the adopted mode was one of the group of major modes (the three modes of Do, Fa, Sol) the close chord became a major triad. If it was one of the group of minor modes (the three modes of Re, Mi, La), the close chord became a minor triad. Here we recognize the precursor of the "two modes: major and minor" of the tonal music era which is to follow.

(4) The Development of Close Formulas

The cadence did not consist of the close chord only.　In the case of monophony "the conjunct motion to a final tone" (**VII → I, II → I**) was the mark of the cadence.　In the case of harmonic music, "specific harmonic progressions from a preceding chord to the close chord" serve as cadence marks — **a close formula**.

1)　In the early period (14th–15th centuries), the following close formula was often used.

(f)　Machaut (c. 1300 ... c. 1377)

As observed above, this form is called "the cadence with double leading tones" due to the characteristic semitone motion of two leading tones ascending to the root and the fifth of a close chord.

2) Subsequently the motion of the leading tone to the fifth tone disappeared with the cadence retaining only one leading tone. This resulting form approached one step closer to classical tonality in terms of the modal system.

C: VII¹　　I

3) This leading tone motion to the close chord was formed artificially by modifications (upward alterations) of the proper tone relationships in modal systems (musica ficta). As a result, leading tone motions and some close chords (of major or minor groups) came to appear locally throughout a piece. We can consider these to be the fore-runner of inner keys in the system of classical tonality (major key and minor key).

G: VII¹　　I　　　　　　d: VII¹　　I
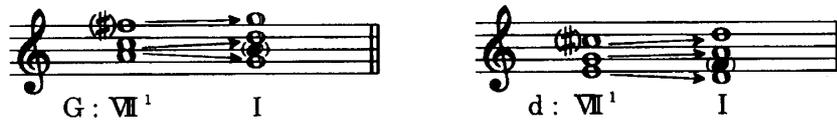
(g)　Ockeghem (c.1425–1495)

San

San　　　　　　　　　　ctus,　San

F: V　　　　VI　IV¹ V V¹　I　V¹ VII¹　I　　I
　　　　　　　　　　　　　　　　　C:
　　　　　　　　　　　　　　　(Key of V)
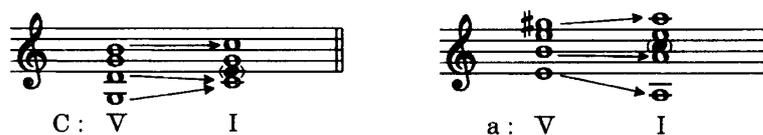
(h)　ibid.

San

San　　　　　　　ctus　Do

San

F: III　V¹ I　V¹　　VI　V III　VII¹　I
　　　　　　　　　　　　　　　a:
　　　　　　　　　　　　　　(Key of III)

4) In the latter half of the 15th century, the form shown below appeared. This form which is exactly the same as the harmonic type of a perfect close formula (V – I) could be said to be only one step behind classical tonality.

C: V　　I　　　　　a: V　　I

(i)　Ockeghem: ibid.

(j)　Obrecht (c. 1430–1505)

If we observe at the above-mentioned formulas from the viewpoint of energy, in spite of the difference in various forms we can say that it expresses the process: "instability → stability" or "movement → stasis" in which a swaying harmony [momentarily or finally] is brought to a close.　Here we can also observe the prototypes of both the primary functional relationship: D → T (instability → stability) and the leading tone motion in the harmonic sense (Ⅶ → Ⅰ: in minor second ascending toward finalis).　These two components have become the indicator (Merkmal) of tonality.

In addition, we can perceive the origin of the idea of "one tonal structure within two modes" in the use of the same formula and close chords (major and minor triad) in all modes of major and minor groups.

(5)　The Establishment of Tonality

As stated above, great progress toward tonality was achieved from the latter half of the 15th century to the 16th century.　In the development of harmonic music, there was a steady evolution in terms of the preparation for the establishment of tonality.　However, we cannot yet say that tonality was established at that time, because it did not satisfy the **three conditions** which must be met for **the establishment of tonality** in the strict sense: the establishment of **a functional principle around T and D**, the establishment of **two modes: major and minor**, and the establishment of **a principal tonality**.

1)　The Establishment of Functional Principle

After the close formula: V → I appeared **the predominance of V and I** was established in other places than the close formula of a piece.　Furthermore, with the addition of **IV, II, VI**, etc. **the dominance of four functions in common use** was extended through the whole harmony, with the network of cadence chains covering the whole harmonic organization.

(k)　Dance music for lute (c. 1550)

Der Prinzentanz (Slowly)

a : I　V　I ᴵᴵᴵ(V　I —————————— V　Ⅵ　V　I ———————
　　T　D　T　D　T　　　　　　　　　　 D　T　D　T

I ——————— V ——————— Ⅵ) Ⅳ　V　I ———————
T　　　　　 D　　　　　 T　D₂　D　T

ᴵᴵᴵ(I ——————— V ——————— Ⅵ) Ⅳ　V　I ———————
　　 T　　　　　 D　　　　　 T　D₂　D　T

2) The Establishment of Two Modes: Major and Minor

The close formula with a leading tone gradually concentrated and organized modal systems **into two modes: major and minor.** The origin of the major mode is the Ionian mode, and that of the minor mode the Aeolian mode. While other modes were abandoned over time, these two modes survived because they conformed most strongly to the harmonic system.

3) The Establishment of Principal Tonality

Even in the early stages of "harmonic music" the chord which was used at the beginning of the music was often used also at the end in order to secure harmonic unity. For the same purpose the same chord came to play an important role at the close points of paragraphs or other places of the music. Here we can see **the precursor of the tonic chord and principal key.**

Along with this, **close formulas using other chords as a close chord** were also formed here and there in the music. Gradually these local close formulas led to the formation of **inner keys as local keys.** However, it was not until after composers began to **design the harmonic and tonal structure** (energetic process) **of their compositions entirely with a clear intention,** that the above mentioned chords used at the beginning and end of a piece and the local close chords were defined as **a principal key** and local keys within a single principal key. This consequently formed one large "key sway."

2　Chord Sway

(1)　The Tonic Chord as single Key Center

With the establishment of "a principal key," a specific close chord (occurring at the end of a piece) was promoted to "**the tonic chord**" and came to have control over the whole piece as the absolute center (the only completely sta-

ble or still chord).　All the close chords of other degrees were demoted to local and temporary tonic chords (inner tonic chords), that is to say, to the position of leading role only within local keys (the inner keys).

With the establishment of "**the tonic chord**" the central tone of a scale was also promoted from "finalis" to "**a tonic.**" The tonic is "the fundamental tone (root) of a tonic chord" and it is considered to be the single and genuine central tone (stable tone or still tone) harmonically and melodically.

(2) The D → T Relationship in Retrograde (Six D positions)

Following the establishment of the central role (T) of **the tonic chord I** the **positions and functions of the six other chords (from II to VII)** were also fixed depending on their relative position to the tonic.

1) First, **V** (D) [with **I**] forming **a close formula V → I** bears a special significance.

2) **V** is located a fifth degree above **I** and **resolves (D → T) to I** by the **fifth descending (D-motion).** The resolving motion of **V → I** is the final and inevitable motion toward a single stable point **I.** It symbolizes, as it were, "the fall" [note] (the final and inevitable movement) and "the landing" (the return to stability) within the gravitational field of harmony.

Note: The origin of a cadence :"cadere" (Latin) includes the meaning of "a fall."

3) If we follow the fifth descending **D-motion** retroactively upwards from the lowest motion: **V → I (D → T)** over the whole seven degrees in sequence, **D-chain (D-circle)** is formed. We may take this D-chain to be a series of movements in the gravitational field of harmony[note] towards the final landing point: **I** (T).

Note: The name "**waterfall of fifths**" suggests "a fall."
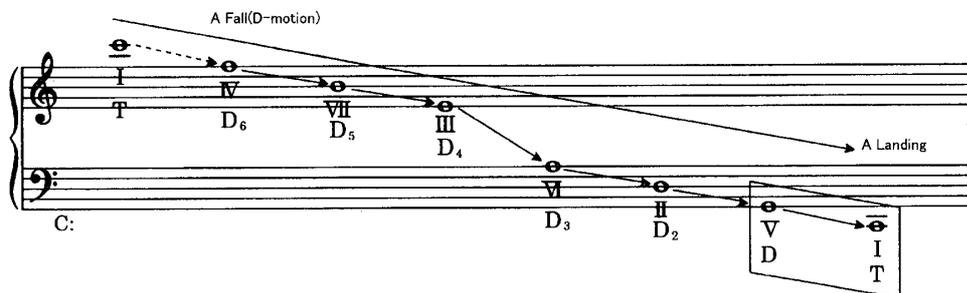

(3) Chord Sway

The movement of harmony (chord sway) results from the combination of **the stability of the T** and **the tendency of movement of the D.** The route of movement is also fixed.

The meaning of **Tonic** can be thought of as **the still point** which is **the goal of harmonic movements.**

The D is one component (D_n) of the harmonic movement towards the goal of the T (D-motion). It is led **to the next functional position (D_{n-1} or T)** along **the course of D-chain.**

These harmonic movements can be shown in a diagram as follows.
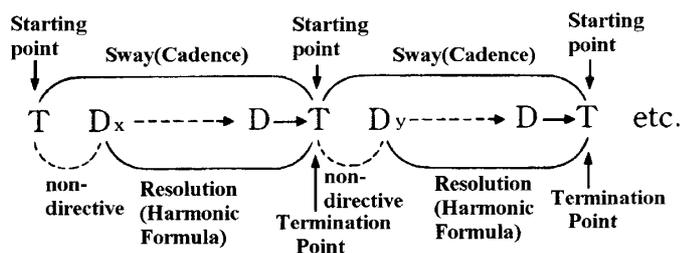
As shown above,

1)　One cycle **from the first T to the second T is one unit (a cadence) of harmonic movement (sway)** which corresponds to <u>one sway</u> of chords.

2)　The **T** as **a termination point** (aim) of a cadence becomes merely **the starting point** of the next cadence.

3)　But **T** itself always retains its function as <u>a still point</u> possessing no inherent directivity.　Therefore, **a switchover of T → D_x is a free connection** without inevitable motion.

Accordingly, **the movement from D_x to the next T** is intrinsically **inevitable goal oriented movement (resolving motion in the wide sense)**.　**Various harmonic formulas** express harmonic patterns through these motions[note].

Note: Regarding the possibility of going astray from the course of the chord route before the arrival to T, there are various motions including the **disguised-D-motion, the incidental reinterpretation**, and **modulatory motions**.　I deal with these cases as they occur individually.

Harmony is an exceedingly <u>dynamic</u> phenomenon.　Harmony forms **undulating movements of sway**, repeating pulse-like motions of **strain → relaxation, motion → repose, instability → stability**.

(4)　The S-motion as the reverse (antithesis) of D-motion

S-motion was used as frequently as D-motion in the polyphony of the Middle Ages and the Renaissance.　However, in the process of the establishment of tonality its use was gradually eliminated until in the end **the absolute predominance of D-motion** was established.

Judging from <u>chord progressions</u> (<u>root progressions</u>), we can consider **S-motion (fifth ascending)** to be **the reverse (antithesis) of D-motion (fifth descending)**.　If **D-motion** expresses **"a fall" (a compulsory and necessary movement)**, we can say that **S-motion expresses "a rise" (a non-compulsory and somewhat unnatural movement)**.
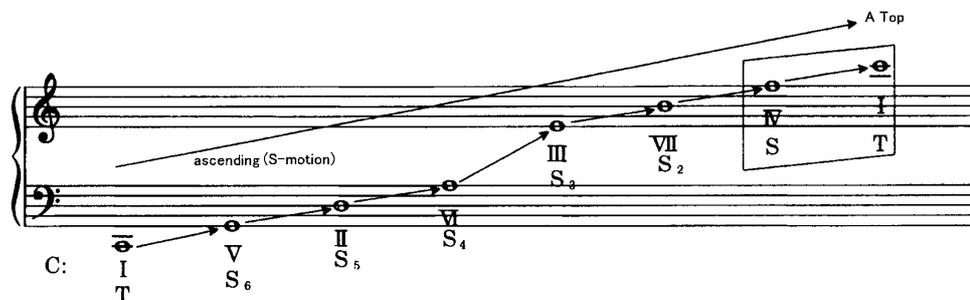
Here are some **supplementary comments** about S-motion.

1)　The arrival to the terminal **I** (the climax) is always done by **IV → I (S → T)**.

2)　**The diminished triad is generally not used in an S-chain.**　Therefore the whole S-chain is scarcely used, **the most frequent uses occur within the following patterns**.
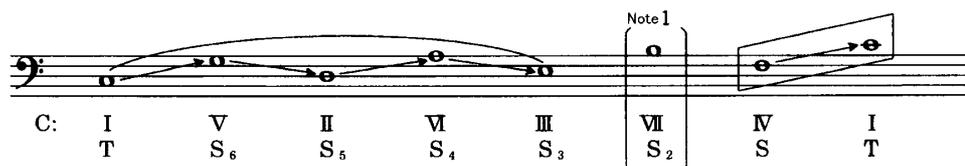
c:	I	V	II	VI	III	VII	IV	I
	T	S_6	S_5	S_4	S_3	S_2	S	T

Note 1: If we use $\overset{\text{III}}{V}$ (V of III) instead of **VII**, the arrival to S_2 (**III** $\to \overset{\text{III}}{V}$) becomes possible.

Note 2: If we use ~~II~~ (Neapolitan II) instead of **II**, the retroactivity of S_5 (~~II~~ $\to$ **VI**) becomes possible.

3) In general **S-motions except the S $\to$ T** are consecutively used in the form of **the sequence of S 2nd ascending type**. They are also used alone as a **secondary S**.

3   Characteristics of Classic Tonality

(1)   The Classic Key as Harmonic Tonality

I have already mentioned that among the six kinds of modes in the Middle Ages only two kinds remained as classic tonality because they are superior to other modes in **their conformability to the harmonic system**.   I will now describe the characteristics of two modes (major and minor) in terms of harmonic tonality.

(2)   Characteristics of Major Key

Concerning the characteristics of a major key the next three points are given:

a)   Above each of **three important degrees (I, V, IV) natural 3 chord** (major triad) can be constructed.

b)   **The leading tone motion** is included in **the resolution of V $\to$ I**.

c)   **Natural 4 chord** and **natural 5 chord** can be constituted **above V**.

Only a major key has these characteristics, hence it may be said that it is the **one and only harmonic tonality**.

(3) Characteristics of Minor Key

On the contrary, a minor key in itself does not have complete independency as a harmonic tonality.   It exists only **in relative contrast to a major key.**

a)   A minor key has minor triads on **three important tone degrees** respectively.   In this way a minor key is **conspicuous in its contrast to a major key.**

It may even be said that "raison d'être" of a minor key arises from **its complementary contrast to a major key.**

b)   However, **V** is changed to a major triad because we must **artificially form the leading tone motion** in the **resolution of V → I.**   This means that in order to be a harmonic tonality a minor key must abandon a part of its uniqueness and adopt major key characteristics.

(4)   The Classification of Major and Minor and the Effect of their Contrast: Brightness and Darkness

I have already described that both major and minor keys possess the effect of contrast between brightness and darkness.   Originally the words: 'major' and 'minor' represented the classification of intervals.   Henceforth, **the distinction between major and minor** has become applied to **scales, chords and keys (modes).**   Now, I will try to consider what these classifications between major and minor mean and why they convey the impressions of brightness and darkness.

1)   In general, **an interval** is measured **upwards from a bottom tone (a low tone) to a top tone (low tone interval).**   This is based on **the principle of the predominance of the low tone.**

2) Now I will compare **both major and minor intervals** in terms of **the height of the top tone** and **the width of interval**, and also examine the impression or effect that each interval causes.

	the height of the top tone	the width of interval	the impression or effect that the interval causes		
'Major' intervals	a semitone higher	a semitone wider	greater vitality	positive	brightness
'Minor' intervals	a semitone lower	a semitone narrower	less vitality	negative	darkness

3)   All **the classifications of scales, chords and keys (modes)** are based on **the classification (major and minor) of the characteristic intervals** in them.   Thus, we understand that they have **a similar effect in terms of contrast (brightness and darkness).**

(a)   **The Classification of Scales** depends on the classification of intervals (major and minor) from **a tonic to each tone (III, VI and VII) of a scale.**

Note: The Phrygian mode in which the interval from the tonic to **II** is a minor second is superior to the minor in terms of the effect of contrast: brightness or darkness.　However, from the viewpoint of tonality the Phrygian mode has a fatal deficiency in that the V chord being a diminished triad, is unable to form the natural 7th and 9th chords above 5th scale tone.

(b)　**The Classification of Triads** depends on the classification of intervals (major and minor) from **the root** of a triad to **the third tone**.

(c)　**The Classification of Keys (Modes)** depends on **the classification of the tonic chord I (major and minor)**.


Footnote

1) **The use of doubled tones as timbre** observed in early organum continue to exist in the form of **parallel chords** even after the establishment of tonality [outside the stricture of the principles of functional harmony]. Examples include the **successive uses of sixth chords** and **chromatic parallel motion of diminished seventh chords** seen after the baroque era, etc.　Furthermore, **since modern times**, parallel chords in **various chord forms (triads, dominant seventh chords and dominant ninth chords, etc.)** have come to be used more frequently (Examples below (1), (2), (3) and example (5)).

(1)　Debussy: "Préludes, 1ᵉʳ libre," No. 10 "La Cathédrale engloutie.'
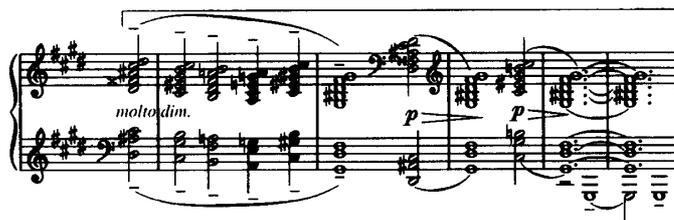
(2)　Debussy: (ibid.)

molto dim.

(3)　Ravel: "Pavane pour une infante défunte."

meno mosso