4 Musical archetypes: the basic elements of the tintinnabuli style

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I Archetypes

It could be said that, like the music of Haydn, Pärt's music is appreciated all over the world. One reason for this rather rare phenomenon for a contemporary composer is that he found ways of (re)building the music out of very simple basic elements or patterns such as scales, which are commonly recognized. I suggest characterizing these elements or patterns as 'archetypes': this multilayered Greek term can literally be translated as 'original or primal image' (*arche* = beginning, source). In the twentieth century, it has been known primarily through its use in Carl Jung's analytical psychology, where it is linked with the equally important concept of the collective unconscious. For Jung, this means a deep layer of the unconscious mind, which can be called collective inasmuch as it is "not a personal acquisition but is inborn" and thus "not individual but universal."[1] Jung calls the contents of this collective unconscious 'archetypes.' These "contents and modes of behavior that are more or less the same everywhere and in all individuals"[2] are by no means to be perceived as concrete images or ideas: in Jung's understanding, the archetypes are rather "definite forms in the psyche which seem to be present always and everywhere."[3] Elsewhere, Jung also strongly emphasizes that:

> archetypes are not determined as regards their content, but only as regards their form and then only to a very limited degree. A primordial image is determined as to its content only when it has become conscious and is therefore filled out with the material of conscious experience. Its form, however, as I have explained elsewhere, might perhaps be compared to the axial system of a crystal, which, as it were, performs the crystalline structure in the mother liquid, although it has no material existence of its own … The archetype in itself is empty and purely formal, nothing but a *facultas performandi*, a possibility of representation which is given a priori. The representations themselves are not inherited, only the forms, and in that respect they correspond in every way to the instincts, which are also determined in form only.[4]

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The idea of the human soul possessing a "net-like basic pattern," which Arvo Pärt put forward in his acceptance speech for the Internationaler Brückepreis der Europastadt Görlitz (International Bridge Prize of the European City of Görlitz), is not too far removed from Jung's image of a crystalline system of coordinates.[5] Pärt's point of origin is the empirical fact that diverse items and substances have very similar basic patterns when examined through a powerful microscope. If one were to imagine that the human soul could also be examined through a microscope lens, it could be expected that – at a certain degree of magnification – a comparable "net-like basic pattern" would be detected. In his Görlitz speech Pärt notes:

> Perhaps one might call it 'human geometry,' neatly sorted, quietly formed – but, most of all, beautiful. In this depth, we are all so similar that we could recognize ourselves in any other person … I am very much tempted to see this beautiful and neat Ur-substance, this precious island in the inner seclusion of our soul, as the 'place' where, over 2000 years ago, we were told that the Kingdom of God would be – inside us. No matter if we are old or young, rich or poor, woman or man, colored or white, talented or less talented. And so, I keep trying to stay on the path that searches for this passionately longed-for 'magic island,' where all people (and for me, all sounds) can live together in love.[6]

Just as we strive to treat our fellow people with love and care in daily life, the composer aims at creating a world in which all sounds, despite their superficial differences, are connected with love. The parenthesis in the last sentence "and for me, all sounds" shows how we are to picture the connection between life and art in the tintinnabuli style: the same ideals apply to the composer's handling of sounds and musical figures and in our relationships with the living environment. Hence, the goal in music is to advance to the deeper layers of primal pictures and substances which could be identified as musical archetypes. Like the mental archetypes in Jung's analytical psychology, they have to be general, supra-individual, and preexistent. The quest for the 'magic island' in universal human existence, which is also the place of encounter with the divine, corresponds, in music, to the quest for the universally musical: in both, the common and connective elements do not arise from a complex variety of interwoven heterogeneous elements but through the fact that outward individual differences can be reduced to homogeneous and simple basic patterns which thus can be more readily overcome.

As with Jung's psychic archetypes, musical archetypes are fundamentally empty forms with no contents. They only appear and become analytically graspable when musical material 'crystallizes.' In the tintinnabuli

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style, the regular crystalline structure corresponds to basic formal relationships such as mirroring, parallel motion, additions, and multiplications, all of which determine the musical processes on small and large levels. On the one hand, it is possible to explain these processes in numbers; on the other hand, they can also be illustrated graphically. The general archetypical element not only connects all tones in music; it also joins music as a whole with both the numerical world of mathematics and physical processes, as well as with the visible world of geometry and visual representation in general.

In fact, the parallelism of image and musical process plays an important role in tintinnabulation, as the pictorial titles of some works show. For example, in the short piece *Arbos* (*Tree*), a tree's branching is translated into musical structure. Similarly, in *Silhouette* (subtitled *Hommage à Gustav Eiffel*), the contour of the Eiffel Tower in Paris, a structure in which the openly visible construction determines the building's character and architectonic statement, becomes the basis for the piece. In Pärt's introductory remarks to *Silhouette*, he not only writes about how he was fascinated by the Eiffel Tower's building plans during the composition process, he also cites the details, in which the architectural and musical structures follow the same principles: "From a composer's perspective, one would be able to find a lot in Eiffel's tower which could be compared with musical structure – the building segments and their arrangement, the transparency of the construction, and many others. Also, statics, a very significant aspect in architecture, is an important subject for the formal structure of a musical composition."[7]

With the title of the organ piece *Mein Weg hat Gipfel und Wellentäler* (taken from a poem by Edmond Jabès, translated by Henriette Besser), we return, in a certain way, to the beginning of our considerations: the highs and lows of a winding road – a visual phenomenon – can be found again in the wave-like progressions of melodic lines in the music. However, while the poem speaks about the turns and twists on the path of life – with its different mental states, exaltations, and deep desperations – the music, via the image of the road, refers back to the imaginary landscape of the soul, as outlined in the beginning of this article. In the idea of an archetype, an Ur-picture, the audible texture of the music is connected on a deep structural level with visible forms, shapes, and events – natural ones (a tree, a mountain range, or a bird's flight) or man-made ones (the Eiffel Tower or the Shroud of Turin [*La Sindone*]) – as well as with imagined structures of the human soul. This essential connection also means that these superficially different areas can influence each other, for instance when, as mentioned before, visual images and ideas prove inspiring during the

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genesis of a composition. Most of all, however, the idea of a musical structure that is parallel to human constitution makes it possible to again seize the ultimately classical idea that music which is, in some way or another, well organized and rightly proportioned is able to gear into the human soul in a quasi-regulative fashion.

The aesthetic of the archetypical is, most of all, the aesthetic of the universal. In addition, the beautiful and the inner in the passage from Pärt's acceptance speech are, without a doubt, keywords. Even if the basic pattern (of the soul as well as of music) is, in Pärt's words, "most of all, beautiful," this beauty is, despite its paramount importance, not an end in itself; its function and reason are to promote this affectionate conjunction of sounds, which can serve as an aesthetic model for the affectionate coexistence of humans. As we will see, the core of the "beautiful structures" is the linking together of two opposed poles in music: the steps of a melodic movement and the jumps in a static sound. The "beautiful structures" do not deny the conflict but integrate it: compositionally, they are expressed in diatonic dissonances between melodic movement and static sound. In the sense of the aforementioned parallelism of art and life these dissonances stand for individual inadequacy and personal errors; at the same time, they are being corrected – theologically: they find forgiveness – by being integrated in superior structures.

The archetypical in Pärt also shares with Jung's analytical psychology that the path that goes inside, if it is taken consistently all the way to the end, does not lead to an overly individualized ego and a vast loss of the outer world but to a common state in which bridges are built – to the lives of others and to God, and, in music, to notes and sounds. On the one hand, the aesthetic of the universal corrects the lopsidedness of an aesthetic of the beautiful which, in the twentieth century, has increasingly been perceived as precarious and which, in the tintinnabuli style, precisely does not deny conflicts and tensions. On the other hand, it also corrects the dangers of an aesthetic of the inward, which, in tintinnabulation, can precisely not be equated with escapism.

By comprehending the tintinnabulation as a quest for the universal in the archetypical, common labelings such as New Simplicity or Holy Minimalism, which are often not free of negative connotations, can be corrected: there is no doubt that the tintinnabuli music is affected by a voluntary self-restraint in choosing musical means. The concept of reduction grasps the meaning of this process much better than the concepts of simplification or minimalism; after all, the appropriate sense of the word reduction (from the Latin 'reducere' meaning 'to lead back') means returning external variety to the common basis of archetypes. Turning to the archetypical means a humble overcoming of the personal ego, which partly

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dies with the first step, to be born again in various contexts and relationships to fellow human beings and to God. The negative term minimalism only cuts the significant second step from the reduction, which deprives it of its actual purpose, the maximal opening of the self to multifaceted relations, as facilitated by the reduction.

Before I discuss the musical-analytical techniques, one last thought: the archetypical is the primal element; hence, it transcends not only the limitations of the individual ego but the temporal limits of here and now as well. The idea of timeliness thus gains another meaning: it is not about artistic expression in the present point in time any more but about the always current, the archetypical basics of life and art, about never-changing basic questions and their possible answers. In an interview from 1968, almost a decade before the first tintinnabuli compositions, Pärt cites Bach, whose works he had quoted repeatedly in his collage works from the 1960s, as the example of such archetypical timeliness: "I think that the so-called 'timeliness' of Bach's music will not disappear in the next 200 years, … The secret of this 'timelessness' is not how extensively its author perceived his own present but all of existence with its joys, worries, and secrets … Art should concern itself with the eternal and not just the current."[8]

The fact that some details of the tintinnabuli style might be reminiscent of different forms of early music (before 1600), just like the return to tonality, means neither an atavistic turning back of the wheel of history (which, after all, can be neither stopped nor turned back), nor an escape from the present and its problems; rather, it emerges from the quest for the archetypical, supra-temporal basis of life and art. The similarities with some details of early music are in a manner newly born out of the structural patterns. Here, as well as with the return to tonality, one can speak about a renaissance, which interprets the archetypical tonal elements of triad and scale for today.

In his Görlitz acceptance speech, Pärt says that, in a fictive examination of the human soul under a microscope, "the outer characteristics of a human being, with all his weaknesses and peculiarities, more and more disappear from the picture."[9] In a musical-analytical systemization of the archetypical basic elements we will follow the compositional process and proceed backwards from the highest degree of magnification, thus arriving at the evidence of a work's individual surface last. Figure 4.1 experimentally shows the different musical layers of depth and thus also offers a plan for this introduction into the depth of the tintinnabuli style. However, inasmuch as formal dispositions are only comprehensible analytically when they appear with individually selected musical material, the individual levels of Figure 4.1 cannot always be discussed separately.

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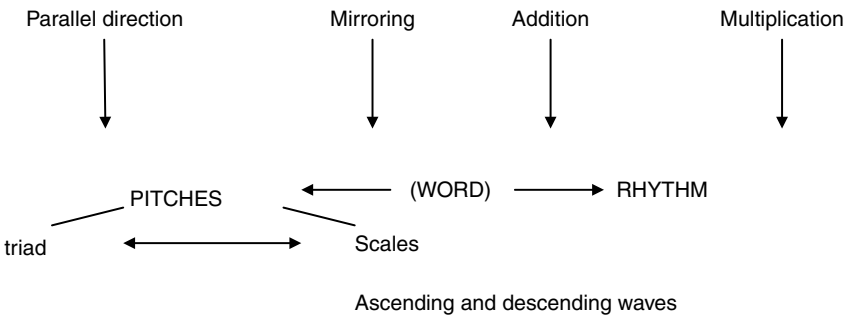

Figure 4.1 Different layers of the tintinnabuli style

II Scales and triads

Scales (the melodic line)

Scales have all the aforementioned attributes of a musical archetype: they are a globally prevalent, pre-existing and supra-individual musical resource. A scale is a formal arrangement of the basic tonal material in the tightest possible space, which makes the distances between the individual pitches of the resulting scale immediately comprehensible. Most of the time, as in Pärt's music, these distances are not equally big, whereas these quantitative differences are connected with significant qualitative ones: that is to say, not all notes are equal; the tonal center (the so-called root) is of superior importance. In order to set the root, the different distances in a scale are not enough. For instance, in the seven diatonic basic notes – the white keys on a piano – two notes can be the root (of a major scale and the so-called relative minor scale). In the older modal system, there are six notes that can be the root. In a piece in just one part, the root usually manifests itself by being the last note. Ultimately, melodies come to a resting point by arriving at the tonal center of gravity. Historically, as music developed, the notes a fifth and an octave above are played above this final tonal root; these pitches are mathematically related to the root in terms of the frequency of the pitch: for an octave the relationship 1:2, for a pure fifth 2:3. In due course, historically, a third completes the chord to form a major or minor chord.

This long description of scale formation is necessary in order to figure out the ways in which scales have regained their quasi-archetypical power and thus their symbolic value in the tintinnabuli style. In traditional tonal music, scales are foundational to the compositional process and are generally used to demonstrate instrumental virtuosity, or are found in transitions that connect individually molded themes. An essential feature of the scale as an archetype is that the movement going in a certain direction – simple and conclusive as it is – can be continued indefinitely. In geometry, a line drawn on a piece of paper can be defined

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as visually realizable excerpts of an endlessly continuable row of dots; in the same way, a sounding scale is an audible excerpt of what is, in principle, an endless row of tones: in this way, the limited material of a composition and the inconceivable limitlessness are thus connected in a simple as well as graphic way.

Furthermore, the qualities of tones in a scale return after a certain number of notes in a different octave: the linear progression thus contains a cyclical repetition on other levels. In scale practice, this return also supplies the turning point. If a pianist plays the white keys on a piano upwards and downwards starting on C, they use this same pitch as the pivot note and finish on it, thus labeling it as the root. With the much more sophisticated use of scales in musical works, the designation of the root and the turning points are not necessarily in such simple interplay anymore. Formulaic melodic (in traditional one-voiced tonal music) and harmonic (in multivoiced music; called chord progressions or cadences) models determine which note is counted as the root. In Pärt's tintinnabulation, there are melodic central notes, which are, as in the playing of scales, the simple result of whichever note begins or ends the scales. The root note is mostly defined by a given omnipresent triad.

Triads (the 'sounding bells')

Instead of the standardized chord progressions found in Western harmony, tintinnabulation usually uses a specific combination of the melodic archetype of the scale with the harmonic archetype of the triad. The latter can be counted as an archetype, inasmuch as it has found use in the specific European form of common practice harmony through many centuries and across many differences of epochal or personal styles. The major triad is also preexistent, discovered, and thus is also not individual material because it is pre-formed in the 'natural' physical phenomenon of the harmonic series.[10] The most important formal-archetypical element of the tintinnabuli triad is the merging of three single notes to one 'pure' harmony that is perceived as a unit and is self-contained. In Pärt's words: "I'm intrigued by the triad's natural purity, its laconism and euphony."[11]

Tintinnabulation: the joining of scale and triad

In tintinnabulation, every single note of a melody voice formed by scales (which Hillier calls the M-voice) ideally gets assigned a note of a triad at a certain distance to this M-voice. In the so-called first position above (+1) or below (-1) the M-voice, this produces diatonic dissonances of minor and major seconds and also thirds and fourths; in second position (+2, -2) we get fourths, fifths, and sixths (Examples 4.1a and 4.1b).

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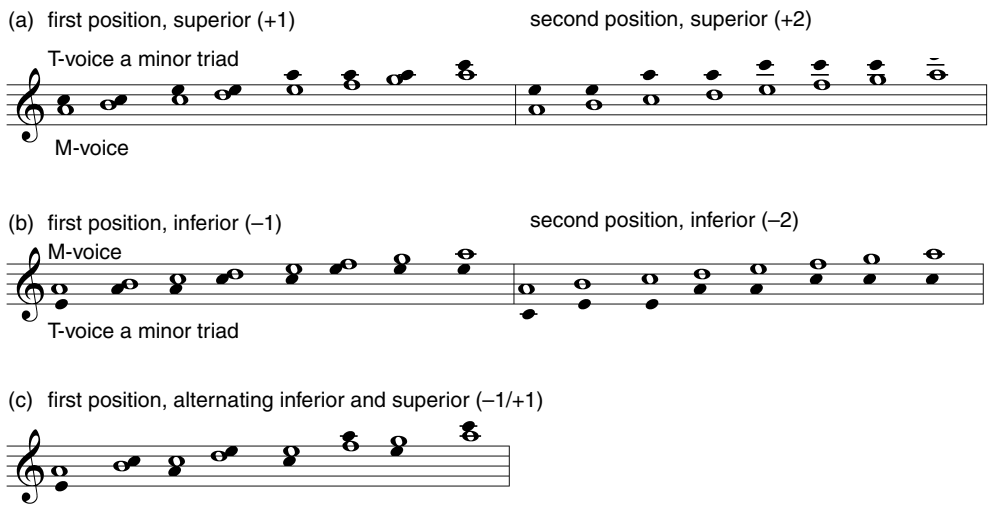
Example 4.1 Tintinnabuli voice positions



By this method, a second voice develops consisting exclusively of triad notes which sounds throughout the whole composition like the peal of bells. From this we get the terms tintinnabuli-voice (T-voice), and tintinnabuli triad (T-triad), which itself consists of three tintinnabuli-notes (T-notes).[12] Pärt's wife Nora summarizes the effect of these two voices, noting that: "The natural feeling for euphony as well as for balance, harmony, and purity is emphasized by the title 'little bells' ('tintinnabuli'). The beauty of the 'little bells' natural sound is, in the composer's understanding, associated with euphony, or more concretely: the triad."[13]

An alternation between the first position above and below is a frequent device used by Pärt (Example 4.1c). In this process, voice crossings, which are often found in early music (for example between the lower voices of an early motet, called tenor and contratenor), can become a consequently employed rule of composition for a specific piece. This effect of constant alternation, where the M-voice and the T-voice are alternately on top or on bottom, produces the sensation of additional pitches, which is often a feature in American-style minimal music. So Pärt's systematic use of all possible interrelations between M- and T-voice bears relation to early as well as contemporary music.

The triad notes determine which scale note becomes the tonal center of gravity. Because the T-voice follows the M-voice in a kind of reflex it is thus not formed by the composer in detail and, in one sense, it can therefore be perceived as a ubiquitous, objective fact. In this quasi-objective way, the notes of the scale that don't accord with it can be seen as variances or aberrances. At the same time, by fitting them into the greater unit of M- and T-voice, tintinnabulation correctively directs them towards the focus of

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the triad. In contrast to the objective (determined) nature of the triad, the melody, which in some way must be deduced from the scale, can be seen as subjective (composed). It is by interpreting this aberrance and integration of the M- and T-voices theologically that one comes to the terms sin and forgiveness. Pärt has repeatedly mentioned this analogy. In a conversation with Enzo Restagno in 2003 he said: "Maybe I could say that the melody represents my sins and my imperfect being, whereas the second voice is the forgiveness that is granted to me. In this case, my subjective errors are being corrected."[14] In a 2010 interview, he stated it even more personally: "One line [the M-voice] is who we are, and the other line [the T-voice] is who is holding and takes care of us."[15]

Scales and triads employed by Pärt

What kind of scales and triads does Pärt use to make this constellation of archetypes audible? In the early tintinnabuli compositions, the so-called natural minor (called the Aeolian mode in the twelve-mode system of early music), prevails. Pärt uses it in *Cantus in Memory of Benjamin Britten* (1977/1980) as well as the main part of the first movement "Ludus" ("Game") of *Tabula rasa* (1977), in its pure form with exclusively diatonic scale notes and the root A. In both cases he combines it with an A-minor T-triad and the melodic central note A (Example 4.2a).

There are commonly two versions of the minor scale, 'melodic' and 'harmonic'. In the 'harmonic minor,' the seventh scale degree is raised a half-step in order to make the step to the root smaller and thus more compelling in final cadences; this leads to an accordingly bigger distance between the sixth and seventh degree (an augmented second) and it is this which gives this variant of the scale a special character (Example 4.2b). Pärt frequently uses this 'harmonic minor' scale, and often the fifth degree of the harmonic minor (for example, the pitch E in A minor) functions as a central note. In *Psalom*, for instance (a work without tintinnabuli voices), the tonal center thus remains characteristically suspended. This work crosses two patterns which together form the seven notes of the scale: first, an oscillating movement between E and F; and, second, a chain of thirds arranged in an arch in which the note E acts as a root as it is the lowest. Added together, this produces the triads on E and A, which, according to the system of a traditional cadence, effectively makes the middle A-minor triad the tonal centre (tonic, labeled T in Example 4.2c), to which, in the matter of a so-called dominant (labeled D), the sounds on E, whose root is a fifth higher, lead up to (Example 4.2c). It depends on the way of hearing if E or A acts as a root. *Psalom* is tonally ambiguous because of the specific way in which it arranges tonal elements. Thereby it does not come to a traditional close

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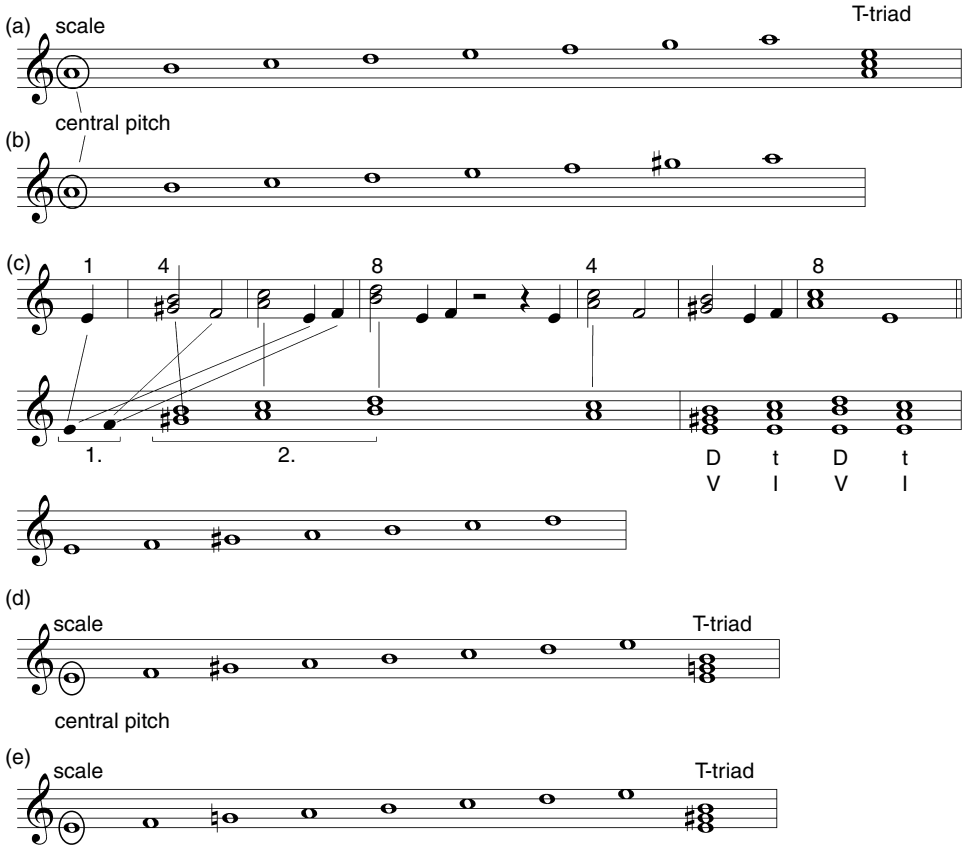
Example 4.2 Pärt's use of scales: (a) and (b) *Cantus*, "Ludus"; (c) *Psalom*; (d) *Mein Weg hat Gipfel und Wellentäler*; (e) *O Morgenstern*



but finishes open-ended and makes the piece seem like a sounding excerpt from a continuum which could keep sounding infinitely.

Most other pieces that use this scale are also centered on the note E through an E-minor or E-major tintinnabuli chord. This produces a scale with a characteristic half-step above the root, followed by an augmented second from the second to the raised third degree. This scale is used in Jewish music as well as in Spanish flamenco music and can thus lend an oriental or Spanish flair, as can be heard in *La Sindone* and *Como cierva sedienta* respectively. As in flamenco music, the third scale degree can be found raised as well as natural. In Pärt's *Mein Weg hat Gipfel und Wellentäler* both of these third scale degrees are heard together: the G♯ in the melody is heard alongside the G♮ of the E-minor T-triad (Example 4.2d). *Fratres* shows similar relationships, differently transposed depending on the version, and in the fifth *Magnificat-Antiphonen* (*O Morgenstern*), the reverse of *Mein Weg* can be heard: the G in the melody is combined with the G♯ of the E-major T-triad (Example 4.2e).

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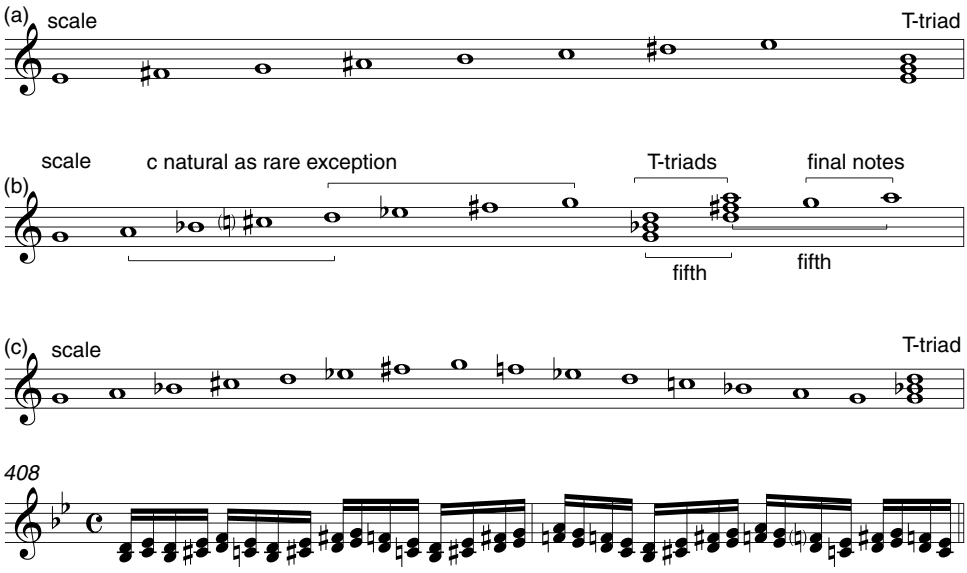
Example 4.3 Raised scale degrees in three works: (a) *And One of the Pharisees*; (b) *Orient & Occident*; (c) *Adam's Lament*



In some compositions, such as *And One of the Pharisees* or *Most Holy Mother of God*, not only the seventh but also the fourth scale degree is raised, which provides for another half-step and another augmented second in the scale Pärt employs (Example 4.3a). This scale also imparts an oriental character. Accordingly, it is the base for the melodic voices of *Orient & Occident*, a dualistic work with a small-sectioned interplay of oriental monophony and European polyphony. Yet this dualism can also be found in the polyphonic passages; in sections, a (dominant) D-major T-triad alternates with a (tonic) G-minor T-triad (Example 4.3b). This in turn corresponds to the scale, in which two equally formed groups of four notes can be discerned, which, because of the raised pitches, lead to D and G respectively. Because of other rules, which cannot be explained here, the piece does not end with any of these two notes but with the note progression G–A, played on the string instruments' open strings, whereby the upper note, A, is a fifth above the D. In the dualism between orient and occident, none of the two antagonists gets the upper hand through the heightened musical significance of being given the last word.

Occasionally, as for instance in Example 4.3c, an excerpt from *Adam's Lament* (mm. 408–409), the fourth and seventh degree of the natural minor scale are only raised when they move upwards from the lower note. Also, it is always possible that pitches are raised only at certain moments in the course of a piece in minor.

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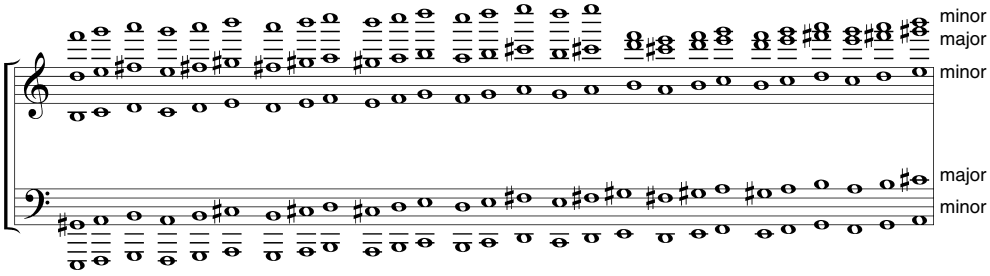
Example 4.4 Symphony No. 4, major/minor tonalities in mm. 109–120



Works in which a major scale is connected with a tonic T-triad are comparatively rare in the tintinnabuli style. Examples are the well-known *Spiegel im Spiegel* (F major in the version for violin and piano) and *Cantate Domino canticum novum*, a setting of the 95th psalm for choir or soloists (SATB) and organ (B♭ major). In the *Te Deum*, the initial D minor repeatedly brightens to D major (both the scale and the T-triads), until the work ultimately ends in D major.

In the last part of the last movement of Symphony No. 4 ("Los Angeles"), A major and A minor don't sound consecutively but concurrently in stacked belts of sound. Example 4.4 shows the melodic basic structure of measures 109–120. Here the upwards scale is interrupted with a rather basic pattern: after three notes, the movement jumps backward to the previous note. This pattern is multiplied by parallel moving tenths (a third plus an octave, the two highest layers at the end in thirds); the second and fourth layer from the top (including their attached T-triad on A) sound in major, the other three layers in minor. The superimposition of major and minor blurs the tonal contours and thus creates a scintillating, ethereal web of sounds.

In a few works, Pärt uses the so-called 'chromatic scale' with all available twelve notes in one octave. In the tuning system used today, the distances between these notes (half-steps) are equal, a neutral uniformity without any relation to a tonic. However, the centripetal power of the T-voice or of a pedal point often proves strong enough to provide tonal footing and center it on a tonic. In the piano trio, aptly named *Scala cromatica*, melodic movements are reduced to a single downwards moving chromatic line; by contrast, in *Wallfahrtslied*, two chromatic lines moving in opposite directions diverge, cone-like. Finally, in the *Passacaglia*, a downward whole-tone scale (with steps that are twice as big as in a chromatic scale), counterbalances chromatically rising thirds in the upper voices. The pedal point A–E in central middle range allows for the tonal centering on A (Example 4.5).

Despite the enormous variety of different scales out of which subjective M-voices are composed, the objective character of the T-voice only

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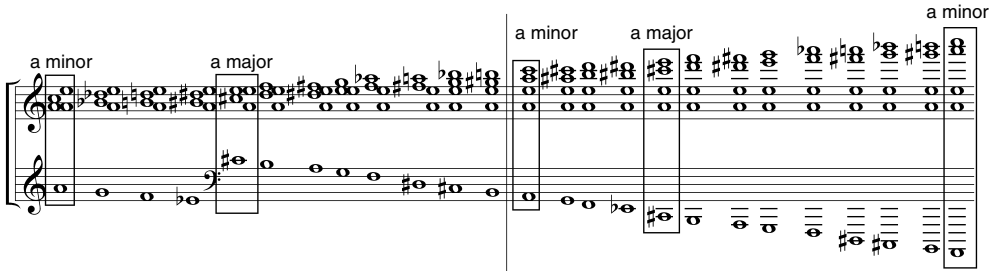
Example 4.5 *Passacaglia*, scale patterns



allows for the choice between major and minor triad. Still, in a few cases, Pärt uses a four-note chord rather than a T-triad. In a diminished seventh chord, the tonally stable 'natural' pure fifth of the triad and its division into a major and a minor third are replaced by an 'artificially' diminished (that is to say, a half-step smaller) fifth. It divides the octave into two equal halves and, in the diminished seventh chord, each is subdivided into two equal intervals (minor thirds). It is these equal distances that make this chord exemplary for a tonally ambiguous sound that is not rooted in a specific key. In the same way as the diminished fifth results from the distortion of the pure fifth, the whole chord can be understood as a distorted picture of the triad. In *Von Angesicht zu Angesicht*, a setting of part of 1 Corinthians, it is not only a general symbol for negative conditions of whatever kind but also provides the tintinnabuli sound in the passages that speak about our present, unclear and fragmented perception ("For now we see through a glass, darkly … now I know in part"). In contrast, the complete gnosis (*von Angesicht zu Angesicht* means 'face to face') promised for after death is characterized by the exclusive use of triads.

In parts of the second and third movements of the Symphony No. 4, a T-triad in the major key is complemented with a minor seventh. This sound, which in traditional harmony is called a dominant seventh, does not sound finished but seeks resolution, typically to a tonic triad whose root is a fifth lower. For instance, in measures 21–26 of the third movement, the surging upward movement (marked "Insistamente") consists of three melodic voices in parallel sixths in the harmonic version of A minor, with a T-triad on E major plus the pitch D (see Example 4.6). This resolves to an A-minor triad (marked "Con intimo sentimento" in m. 26).

III Mirrorings: four melodic modes

In Pärt's tintinnabulation, mirrorings, parallel movements, additions, and multiplications are connected with each other in many ways, so it makes

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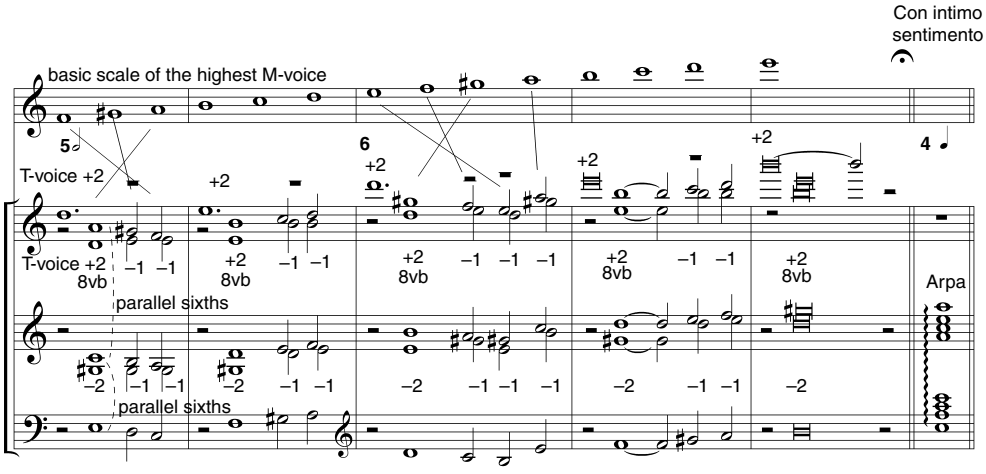
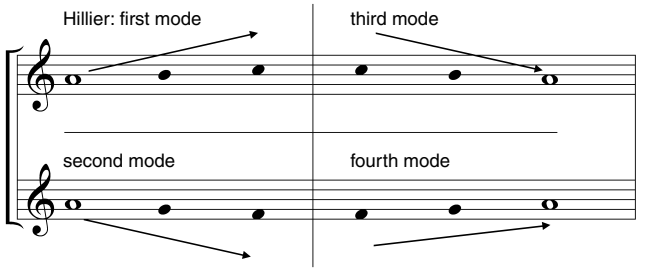
Example 4.6 Symphony No. 4, third movement, mm. 21–26



Example 4.7 Tintinnabuli mirroring



sense to show them in context. Fundamental to all tintinnabuli mirrorings is the system to assign ascending and descending scales a melodic central note: as these central notes can be either at the beginning or the end of the scales, there are four possibilities in total, which are symmetrical to each other on a vertical and a horizontal axis (Example 4.7 shows this for a group of three notes). Hillier called them "modes."[16] All four are equal, so that only the contexts in the individual works can decide which one is set as a basic row from which the other variants of retrograde, inversion, and retrograde inversion are taken.

Spiegel im Spiegel (*Mirror in Mirror*) is an excellent example of mirroring in the melodic voice. It is also a graphic picture for the formal-archetypical aesthetic of the tintinnabuli style in general: if one holds two mirrors against each other, the two-way reflections show a picture whose representations trail off endlessly, like an optical cone into infinity, formed by a rational, technical arrangement. In that sense, one can call the tintinnabuli style an acoustic cone into infinity: proceeding from one note, the

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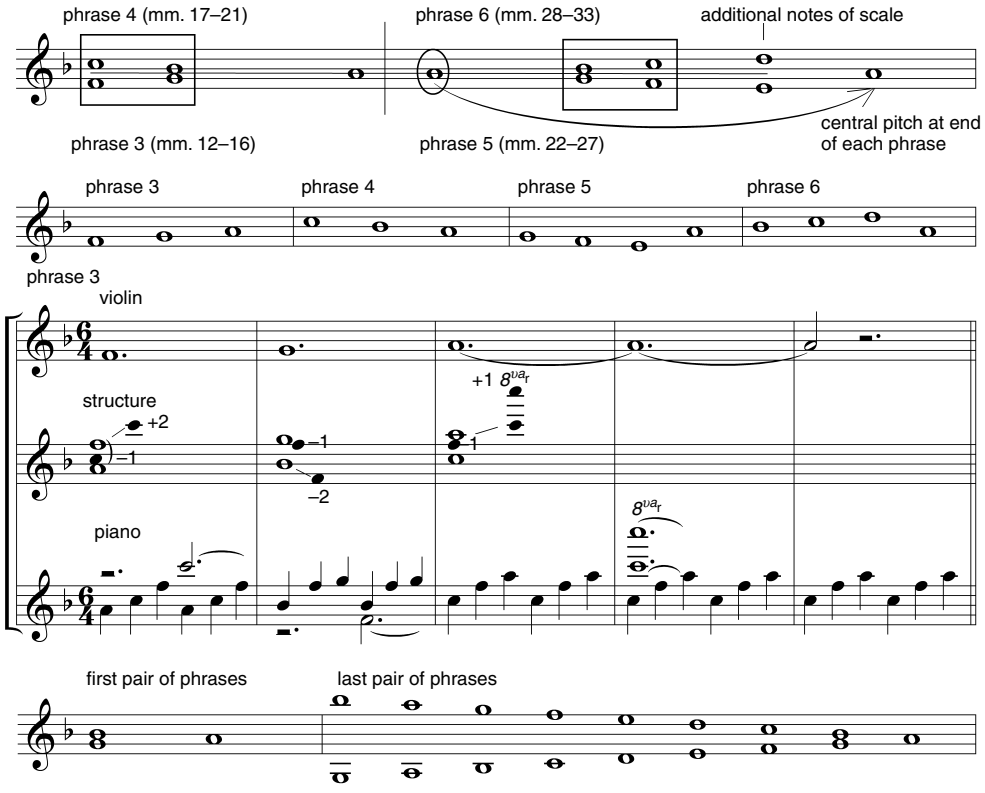
Example 4.8 *Spiegel im Spiegel*



array and mirroring of the step to the neighboring note triggers rationally calculated formal processes, which can be continued indefinitely. In *Spiegel im Spiegel* (version for violin and piano) the melodic central pitch A′ is the third of the tintinnabuli triad F major. As opposed to the system in Example 4.7, it is always at the end of the scale (see Example 4.8).

The variations mirrored around the central pitch A′ sound consecutively and form pairs, which are symmetrical about an horizontal axis. Two consecutive pairs are symmetrical on a vertical axis (except for the central pitch), and for each repetition a scale note both from above and below is also added to every pair (+1). This principle of addition is often connected with the mirroring technique and expands the melodic range in cone shape. These simple as well as continual processes could be continued ad infinitum, but, as only a limited amount of time is available in a work of art, they must be abandoned at some point. *Spiegel im Spiegel* ends when the steps to the neighbor notes of the central pitch, which begin the process, have reached the octave (B♭″ to A′, then G to A′): this suffices to be able to perceive the finite time of a work of art as an excerpt of an endless continuum. The key (F major) is chosen so that the lowest note of the

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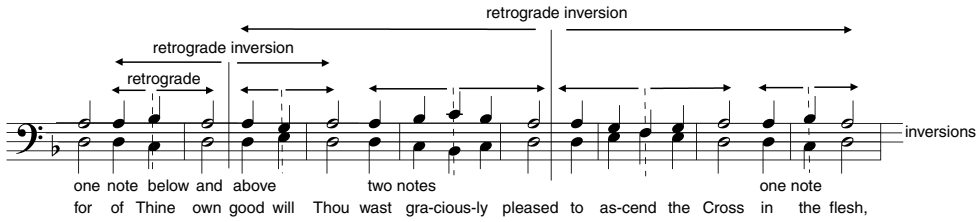
Example 4.9 "Ode 1" from *Triodion*, mm. 16–23



expansion process is also the lowest note that can be played on the solo instrument, the violin.

This basic line multiplies according to simple rules to a many-voiced texture: the first and third note of the three-note accompaniment figure are always a third or an octave, respectively, above the notes of the melody; thus, put together, they form two melodic voices parallel to the melody in the solo instrument by a third or an octave, respectively. In between, there is a tintinnabuli note (the T-triad is F major) in first position below the third note. When the three-note group is repeated, tintinnabuli notes appear alternately in higher range (second position above the third note of the accompaniment figure, first position one and two octaves higher for the central pitch) and lower range (second position below the first note, first position one and two octaves lower for the central pitch). With steady quarter-note movement, this forms a $\frac{6}{4}$ bar for every melody note, except for the central pitch, which is emphasized by an extension over three bars (×3: multiplication principle). The analysis of this simply constructed work shows a general characteristic of the tintinnabuli style: the individual shape of a work results from the way melodic and tintinnabuli voices and mirrorings, parallel movements, additions, and multiplications intertwine.

Mirrorings can sound not only consecutively in one voice but also simultaneously in two voices. In Example 4.9, from "Ode I" from *Triodion* (mm. 16–23), both are the case. It is not difficult to identify an addition process which is here followed and balanced by a subtraction process (1 step up and down, 2 steps up and down, 1 step only up). As a result, the simple structure is woven through by a net of higher and lower axes of symmetry (Example 4.9).

Parallel movements

Because mirrorings can be executed around differently set axes, an abundance of connections appear, especially with simpler material, if they are examined from different perspectives. In contrast, use of parallel movement is a much simpler system with which to create a multi-voiced texture from one melodic voice. The determining factor is always use of the

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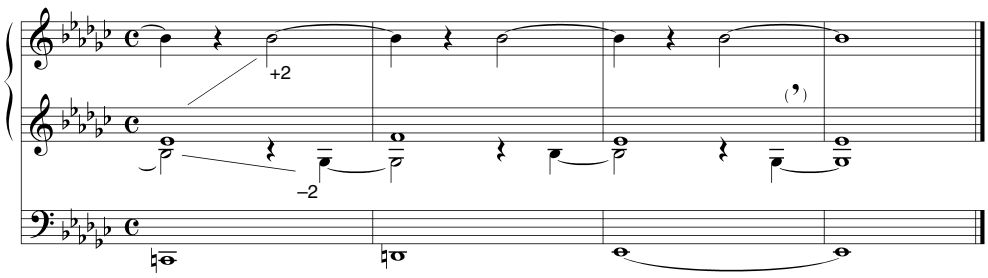
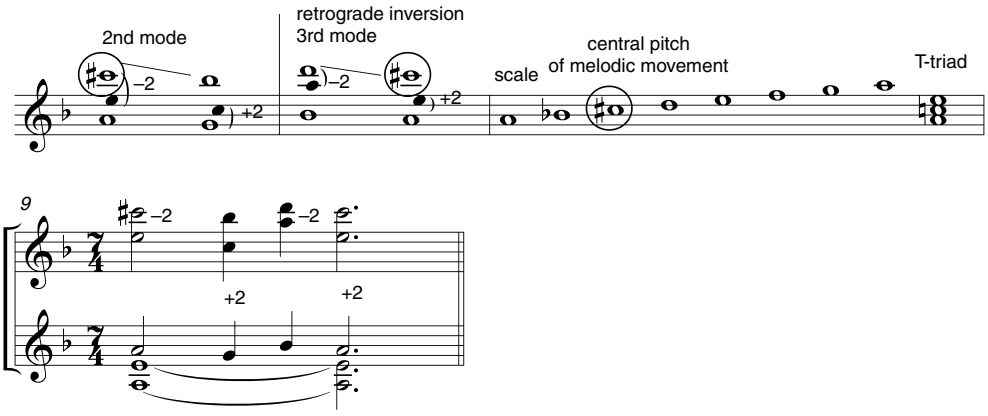
Example 4.10 *Pari intervallo*, end



Example 4.11 *Fratres*, m. 9



same interval between the melodic voices (one might call this technique 'pari intervallo,' which is actually the title of an early tintinnabuli composition). In the tintinnabuli style, it is preferentially sixths and thirds, the latter often stretched over one or more octaves. As Example 4.4 shows, it can also be more than two voices, with one third plus an octave distance each. In the piece *Pari intervallo*, we also find a third-and-two-octaves distance between the two melodic voices, which is ultimately narrowed to a double octave. Here, the two T-voices (second position above and below the topmost melodic voice) enter staggered and are accordingly held over to the next note of the melody (Example 4.10).

In *Fratres (Brothers)*, the distance between the two melodic voices is a third and an octave throughout. They include a T-voice, which is positioned alternately in second position below the upper voice and above the lower voice (Example 4.11). The title of the piece, rich in associations, may also point to the brotherly harmony and cadence of these melodic voices.

The euphonic closeness of two voices in thirds has been a sounding symbol of intimate togetherness and consoling security for centuries, and it has retained this meaning in the tintinnabuli style. For example, the

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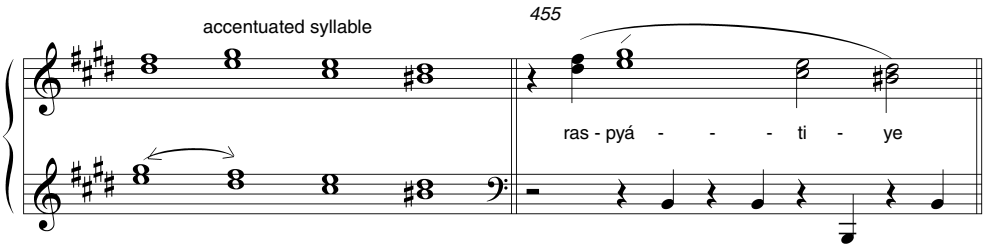
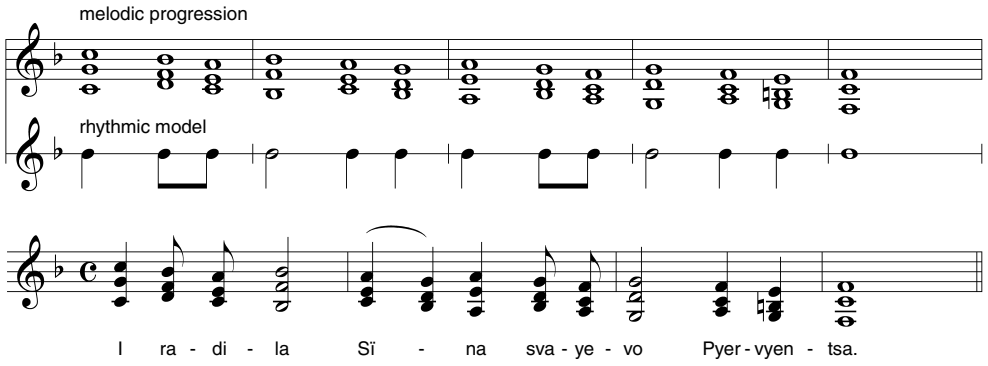
Example 4.12 *Lamentate*, section L, m. 455



Example 4.13 *Weihnachtliches Wiegenlied*, beginning



thirds in section L of *Lamentate*, marked "Conciliante," on the pedal point G♯, sound conciliatory (Example 4.12).

In the sections of *Kanon Pokajanen* sung by male voices, we also find parallel fourths. Combined with below-set parallel thirds, which switch to the lower fifth with every third chord, they also mark the beginning of *Weihnachtliches Wiegenlied* (Example 4.13).

This basic form of a three-part composition was significant particularly in the fifteenth century and is known as fauxbourdon. However, this system is not just copied by Pärt, but is reconfigured by the structural contexts of the tintinnabuli style. The descending sequences of the three-note groups are a simple fracturing of the scale, as we have already encountered it in an ascending form in Example 4.4. The rhythm of these three-note groups appears every second time with double note values. It is this fusion of old, familiar material and its structural permeation that characterizes tintinnabulation: the familiar keeps the rational structures from being merely self-sufficient, demure mechanics.

While all parallel movements so far have not exceeded the pool of notes provided by the scale, in more recent works (from *Como cierva sedienta* (1998/2002) onwards), we also encounter parallel moving diminished fifths/augmented fourths, a part of the aforementioned diminished seventh

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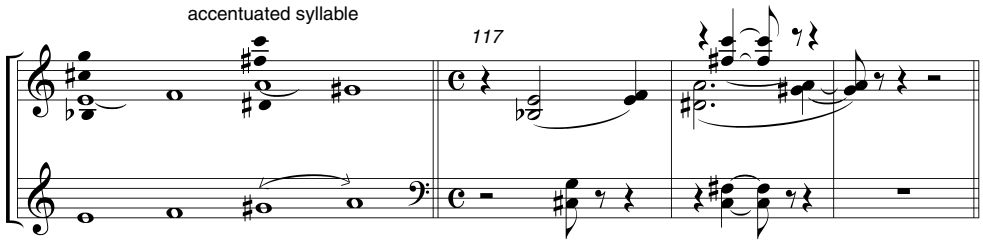
Example 4.14 Symphony No. 4, the word 'disobedience', mm. 117–119



chord. With this interval, reference to a tonic gets lost to a large extent, especially when there are no tintinnabuli voices and no melodic central pitch, as in the excerpt from the Symphony No. 4 shown in Example 4.14 (second movement, mm. 117–119). In the text this passage is based on, human, God-rejecting errors such as lying or pride are listed. In Example 4.14, the subject is the four-syllable Church Slavonic word for disobedience (непокорством).

Here the notes of the A-minor scale with raised fourth and seventh degree are reorganized so that the accentuated third syllable gets the highest note. To this, either an augmented fourth/diminished fifth lower is added to the notes of the A-minor scale (in Example 4.14, non-scale notes B♭ and D♯) or the preceding melody note is held over. This occurs in permanent alternation, and the accompanying voices add the notes missing for a diminished seventh chord. The result is tonal disorientation as musical/structural expression of estrangement from God.

Addition and subtraction

Like mirroring, the principle of addition can also be effective in two dimensions: in the succession of the number of notes as well as in the superimposing of the active voices. The Kyrie of *Berliner Messe* (Example 4.15) shows both in connection with an important basic principle: the number of syllables of every single word determines how many scale notes are added to or subtracted from the centre pitch (G′ in the alto, B♭ in the bass).[17] The accented syllable gets two notes, of which the second is extended by three beats, the others get one note.

As already mentioned when discussing Example 4.14, the position of the accented syllable in the word can also influence the course of pitches: in Example 4.12 as well as in Example 4.14, the notes of the scales that descend to the center pitches G♯ and B♯ (four notes for the four syllables of the word) get rearranged so that the accent syllables occur on the respective highest note. Thus, the parameters of the text connect the principle of addition (which regulates the pitches), and the principle of multiplication (which determines the durations).

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Example 4.15 *Berliner Messe*, Kyrie, mm. 2–3 and 5–6

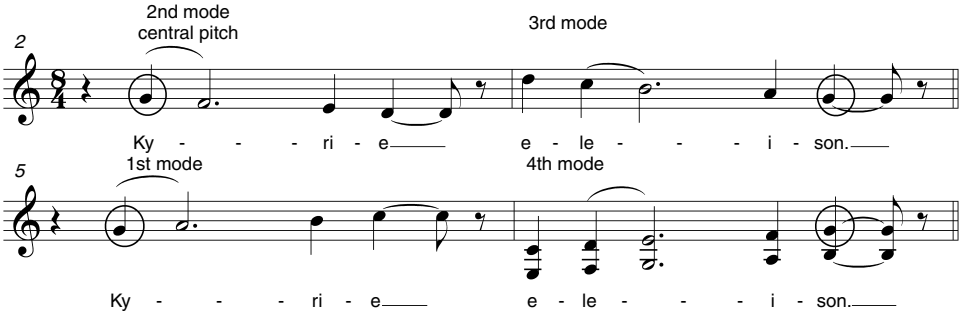

Table 4.1 Berliner Messe, *melodic modes in Kyrie*

	K	e	K	e	C	e	C	e	K	e	K	e
Soprano		T	T	T	T	T	T	T	T	T	T	T
Alto	M	M	M	M	M	M	M			M	M	M
Tenor			T	T	T	T					T	T
Bass				M	M							M

K = Kyrie C = Christe e = eleison

In the Kyrie, the four modes of the melodic movement are tied together as pairs in such a way that the second pair is a mirroring of the preceding one on a horizontal axis (Example 4.15). Table 4.1 shows how a new voice appears with every word (Kyrie eleison twice), then symmetrically disappears (Christe eleison twice) and ultimately reappears (Kyrie eleison twice). The roles of the voices are determined exactly: alto and bass are M-voices (M, in parallel sixths), soprano and tenor are T-voices (T, with changing positions).

In an understandable variation from the scheme, the M-voice alto begins instead of the T-voice soprano. Later on, at the end of the Christe section and beginning of the second Kyrie section, the soprano follows the simple scheme and sings tintinnabuli notes to a melodic voice, which does not sound in the alto but can easily be deduced from the rules outlined above (Table 4.1).

Multiplication

While additions and subtractions regulate the number of notes in melody or harmony, multiplications exclusively affect rhythm. The (historic) model of composition in which the multiplication of note values (and thus simple proportions) determines the relation of the voices to each other is called the 'proportional canon.' Contrary to the traditional canon,

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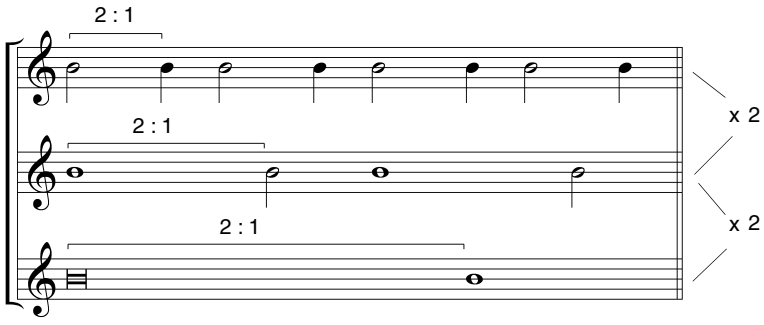
Example 4.16 Proportional canon



in which the voices enter in the same rhythm consecutively, in the proportional canon the note values of the original voice are lengthened or shortened in a certain ratio. Pärt reduces this compositional model to its archetypical simplest form, which is fundamental to all his proportion canons: the simplest form of multiplication, duplication, determines the ostinato three-beat rhythm of every single voice (2:1 long-short) as well as the relation between the voices (1:2 (2=2x1), 2:4 (4=2x2), 4:8 (8=2x4) and so on).[18] Most of the time, the distance between the voices is one octave, and, as in a traditional canon, they can enter consecutively or simultaneously (Example 4.16).

The very titles of Pärt's works give strong hints for their interpretation. The title *Arbos* (*Tree*) translates the archetypical formal disposition of the tree into the visible realm: in a canon of proportions, the same melodic line is audible two, three, four times, and so on; in a tree, the trunk divides into two branches and these split up into two smaller branches, and so on. The proverbial title *Festina lente* (*Make haste slowly*), on the other hand, points towards the paradoxical time structure of the canon of proportions: as the melody proceeds fast and slow at the same time, the fastest voice always sounds at the same time as its own stretched past. In such a way, the linear perception of time, which proceeds from the past into the future, is being split, and perception changes to the sense of a static surface with inner movement.

IV Melodic motion

There is a set of possibilities for how Pärt utilizes the four modes of melodic motion to design musical lines in connection with the principle of addition. Two groups of possibilities determine a large number of works and can thus be viewed as archetypes that are more concrete than the aforementioned ones but that are still general enough to permit various individual characteristics with different symbolic value: first, descending or

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ascending scales (i.e. melodic lines formed out of one of the four modes); second, wave movements that combine all four modes.

Falling and rising scales

The concept of falling is connected to the concept of gravity: accordingly, falling scales follow a kind of melodic gravity which has its center in the tonic. For rising scales, in another translation of known physical laws into musical terms, force is needed to overcome this gravity. This force might be seen as not intrinsic in the musical material like the melodic gravity, so it can also be understood as a lifting up from the depths which is produced by an outside force; this depth has for centuries been a symbol for darkness, underworld, death, damnation, desperation (*De profundis clamavi*), or degradation. A falling scale, however, does not only lead into this depth but, viewed from a different perspective, it also leads downward from above. Therefore, it depends on the situation and the concrete context which symbolic form is taken on by this archetypical constellation of the descending scale.

In tintinnabuli pieces, the ascent and the descent often are in accordance with one another. For instance, a descending scale over the setting of the opening ("Exordium") text, "Passio Domini nostri Jesu Christi secundum Joannem," of *Passio* introduces the basic tonal material of the Evangelist's part (A-minor scale for the M-voice and A-minor T-triad). In contrast, the piece ends with a simultaneously ascending and descending D-major scale, set to the added words "Qui passus es pro nobis, miserere nobis. Amen." The A minor of the Evangelist's text, which throughout the whole *Passio* was perceived as the tonic, ultimately turns out to be a dominant preparation for the 'actual' tonic D, a fifth lower. The strong effect of this D-major closing ("Conclusio") is based on the interplay of the surprising reinterpretation of A minor from tonic to dominant, the brightening into major, and the scales moving in opposite directions with the ascending line now in the upper voice. In religious interpretation, this becomes a sounding symbol of the anticipated or rather promised resurrection as well as the hearing of the uttered plea.[19]

La Sindone is also framed by ascending and descending scales. In a dramatic gesture, this work starts with a loud dissonant sound: as in Example 4.14, parallel tritones and held notes, which further sharpen the sonic picture, dominate (Example 4.17).

The ascending movement at the end of the piece moves from the diatonic world of A minor in the tritone-rich, tonally vague sound world of the beginning; however, this time it is rooted by the sustained tonic E′, into which all string instruments (which have been ascending to the highest registers), fall little by little. As careful as one might want to be

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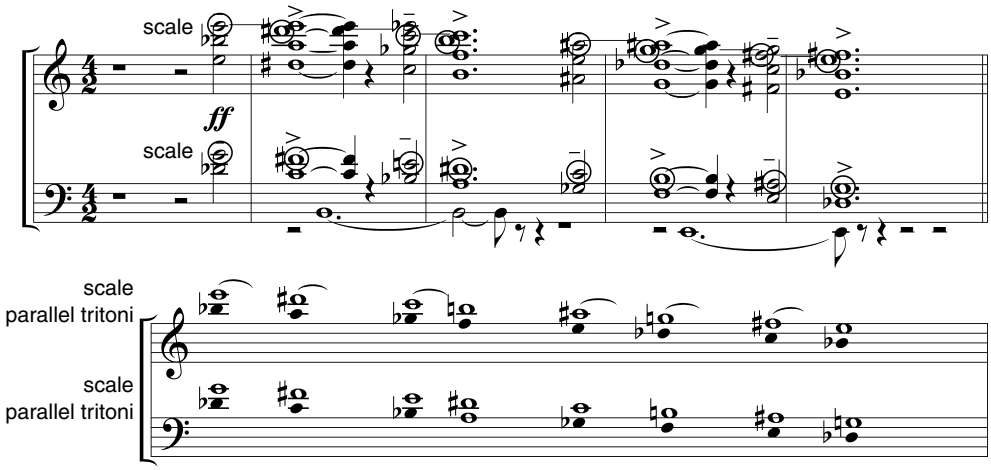
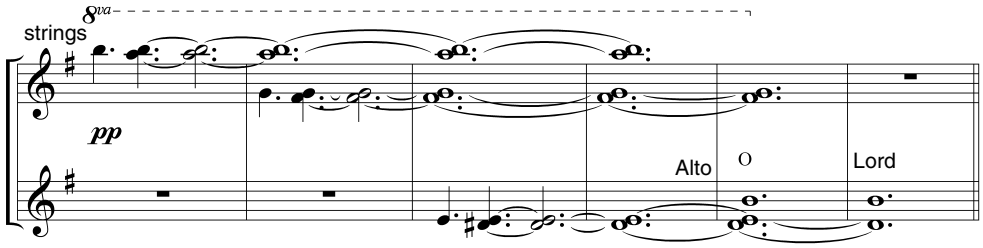
Example 4.17 *La Sindone*, opening



Example 4.18 *Litany*, opening



with interpretation in regard to contents, in context with the 'theme' of the composition offered in the title (*La Sindone* refers to the Shroud of Turin), the association of burial appears at the beginning at the piece, whereas the end might suggest resurrection. Nevertheless, the work does not close with a quasi-triumphal consonance but with a soft four-note chord on E, with both major and minor third. We don't yet see face to face.

While *La Sindone* ascends to the highest range at the end, the beginning of *Litany* descends from there to the earthly, human middle range of a sung prayer (Example 4.18). Here, polyphony is created by sustaining paired scale notes in different octaves. There are no T-voices at all. The symbolic message here can be seen as God's turning to man, which precedes the prayers set in *Litany*. In conversation with Restagno, Pärt describes the beginning of *Litany* as such: "In the beginning, there is a voice singing a beautiful prayer, and in the same instance the answer comes from heaven … Before man can ask God for help, He is already with him. The time in which these actions take place does not belong to us."[20]

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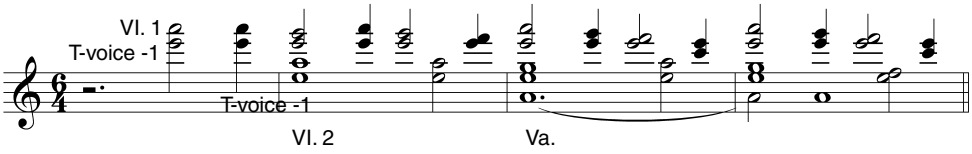
Example 4.19 *Cantus*, opening



Cantus in Memory of Benjamin Britten (the Latin word *cantus* means chant) from 1977 is the earliest and best-known example of a descending scale, which, beginning with a single note, expands by one note every time it repeats. The principle of addition is connected with the multiplication of note durations in the rhythmical mode of the individual voices (long-short, 2:1) as well as in a canon of proportions with five time layers in total (Example 4.19).

With its title, this work looks back on an important tradition, predominantly in the fifteenth century, in which, in a special kind of dedicated composition (called a deploration), the death of admired composers is lamented and their compositional style is recognized. Therefore, the symbol of this 'chant' on the descending scale is the 'lament,' an affect which is traditionally illustrated by a descending motion. But *Cantus* is more than that, and in the context of the general meaning of archetypes, it is also more than a posthumous homage to an individual composer: one could call it a musical verbalization of the human consciousness of life's finite nature. It is obvious with the first appearance of notes in the sound-world of this piece that the continued process of addition has to get to the limit of music playable in the low range of the instruments. Very close to this limit, all the voices gather to form the A-minor T-triad, the constant movement stops, and the diatonic dissonances in the moving surface are resolved. This overlong held sound, however, is not the end of the piece; instead, it is the transition to the silence of the final rest, in which the reverberation of the bells leads to sounding silence.

Waves

Ascending and descending scales have a directional tendency, which, as in *Cantus*, can be made relative by making all scales return to their initial point of departure. In contrast, musical curves, which can be called wave-shaped, are characterized by symmetry and balance. In the simplest wave form, a movement away from a central pitch is balanced by a movement back to it. The resulting 'half circle,' composed of two scale modes, is then mirrored around the center pitch. Only the principle of addition or subtraction allows for a cone-like sound area to develop. In *Most Holy Mother of God* the wave motion and the subtraction process are clearly

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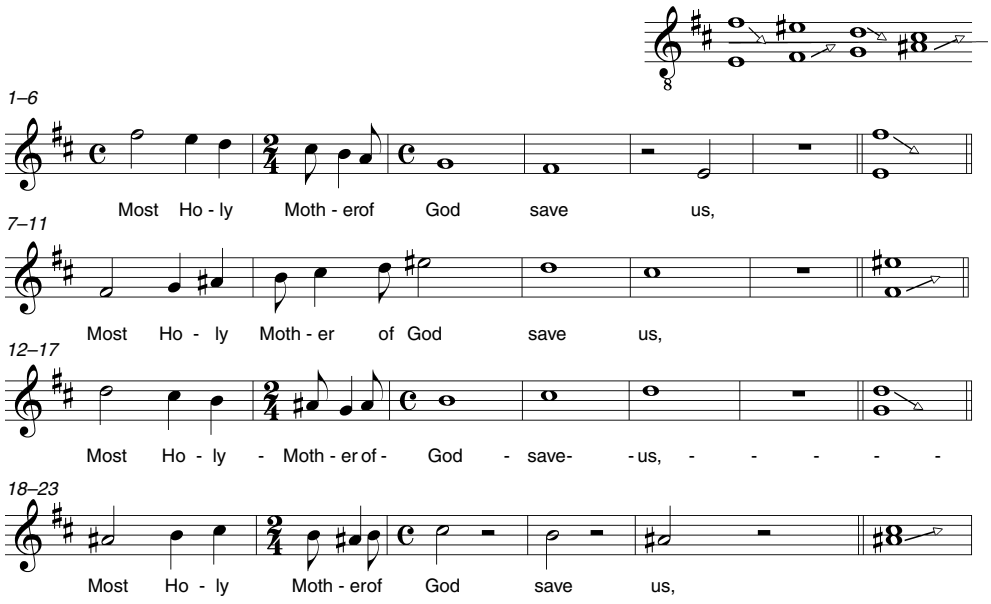
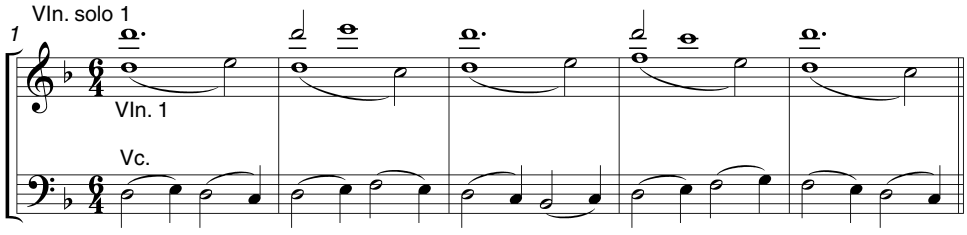
Example 4.20 *Most Holy Mother of God*, M-voice mm. 1–23, wave motion



Example 4.21 *Tabula rasa*, "Silentium," opening



identifiable but they are modified by the structure of the text: each one of the four calls begins alternately with the highest and the lowest note of the tightening wave and stays in the framework given by the subtraction process (Example 4.20).

A widening wave proceeding from the center pitch regulates every detail as well as the progression of "Silentium," the second movement of *Tabula rasa*, another canon of proportions. At the end of this movement, in the low range, every pair of voices also crosses the border from played music into sounding silence (Example 4.21).

The main section of *La Sindone* is also based on an expanding wave motion, which multiplies to a multi-voiced web of sound in a canon of proportions. Here, however, the T-notes (alternating barwise -1 +1/ +1–1) join with the repeated notes of the wave, creating voices with strong melodic characteristics. In addition, the wave does not sound completely

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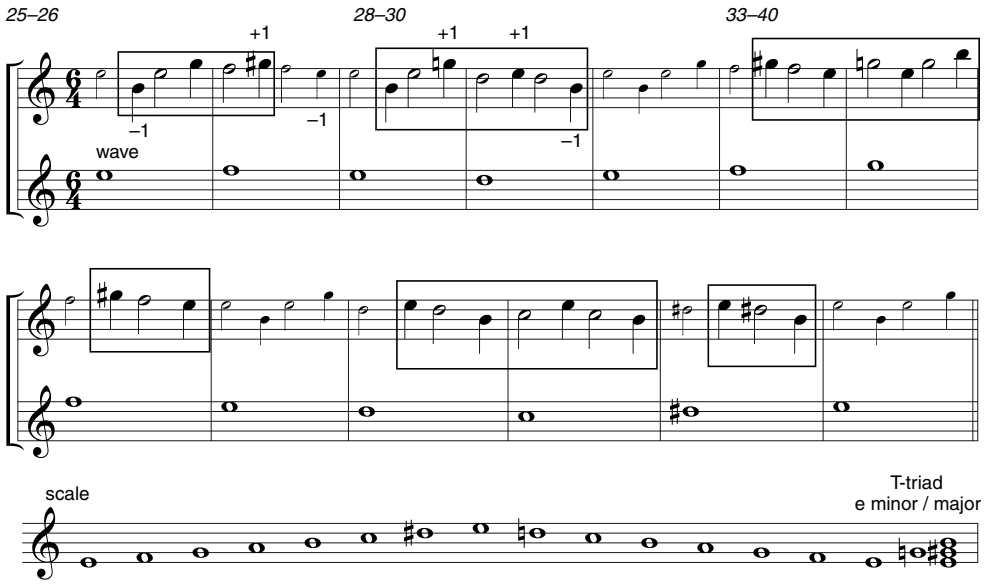
Example 4.22 *La Sindone*, mm. 25–26, 28–30, 33–40



but only the section around the highest and the lowest notes (in Example 4.22 the notes in the marked areas); later we also hear the notes around the axis note E and, increasingly, all notes. The lines of the musical portrait get lost just like the facial features on the shroud or like the fragmentary way we can grasp the origin and story of this shroud: the net of musical voices becomes the image of the texture of the shroud and its historic entanglement.

V *Arbos*: the tree

In the context of this introduction to the basic elements of the tintinnabuli style it is neither possible nor reasonable to describe all its ramifications. To stay with the image of a tree: as a basic rule, one can determine that whichever way tintinnabuli works grow most develop from the two main branches of triad and scale or, viewed reversely, compositionally join together to the unity of the trunk. The schematic image of a tree is also found in family trees which document lineage. In *Which Was the Son of…*, a choral work, Pärt set Jesus' family tree to music. He finishes with the lines "which was the son of Adam, which was the son of God." Inasmuch as this is true for all of us, the musical tree of a composition ultimately becomes a mirror of our lineage and thus our status as God's children.

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Further reading

Leopold Brauneiss, "Arvo Pärt's Tintinnabuli – Style: Contemporary Music Toward a New Middle Ages?" In *Studies in Medievalism,* vol. 13, *Postmodern Medievalism*; (Woodbridge: Boydell & Brewer, 2005), pp. 27–34.

Hermann Conen (ed.), *Arvo Pärt: Die Musik des Tintinnabuli-Stils* (Cologne: Verlag Dohr, 2006).

Paul Hillier and Tõnu Tormis, *On Pärt* (Copenhagen: Theatre of Voices Edition: 2005).

Peter Sloterdijk, *Kopernikanische Mobilmachung und ptolemäische Abrüstung* (Berlin: Suhrkamp, 1987).

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