The Octatonic Scale
Description, History, Application

Description

• The octatonic scale is a symmetrical scale based on a repeated pattern of alternating half and whole steps, resulting in an eightfold division of the octave.
• Since there are only 7 discreet pitch designations in our scale system, the spelling of the octatonic scale must by necessity include the use of two pitch classes with identical letter name designations.
• The scale comes in two modes, depending on whether the order begins with a half or a whole step
  o The first mode, in C, is C Db Eb E F# G A Bb C
  o The second mode, in C, is C D Eb F Gb Ab A B C
• Both modes can be thought of as two interleaved diminished seventh chords
• Mode 1 (the most commonly used version in classical composition) enables the simultaneous use of both the major and minor third, and both the tritone and the perfect fifth, while also stressing simultaneously the dominant seventh (C E B Bb) and the half-diminished seventh sound (C Eb Gb Bb). It is an incredibly versatile scale which at the same time has a somewhat “static” feeling due to the lack of a major-seventh leading tone.
• Mode 2 is an unusual mode in that it lacks a perfect fifth, only possesses a minor third, yet has a strong leading tone indication due to the presence of the raised 6th and 7th. It has a stronger feeling of the two interleaved diminished seventh chords, since there is not the additional sound of the dominant or half-diminished seventh chord within the scale to obscure the diminished seventh sonority.

History

• The term “octatonic scale” was coined by Arthur Berger in an article in the essential music journal Perspectives of New Music entitled “Problems of Pitch Organization in Stravinsky,” (1963) who saw the octatonic as an essential approach to pitch organization in much of Stravinsky’s music.
• Subsequent writers, most notably the prolific Stravinsky scholar Richard Tauraskin, traced the origin of Stravinsky’s use of the octatonic to the earlier Russian composers Glinka, Scriabin and Rimsky-Korsakov, who was Stravinsky’s composition and orchestration teacher.
• Uses of the octatonic have since been identified in the music of Debussy and Ravel.
• Bartok and Messaïen used the scale extensively and consciously, and we will explore this in more detail when we investigate these composer’s techniques.
• The genesis of the octatonic scale has been placed within the context of mediant relationship and borrowed harmony:
  o Mediant relationship saw the co-existence of a C major with, for example, an Eb major triad and a A major triad. All three of these triads are to be found within the notes of the Mode 1 octatonic scale.
  o Mode two includes the simultaneous presence of the major and the minor submediant triad, linking it to polarity theory.
• As these harmonically-derived techniques become more common, a scale grew out of these harmonic choices that became the octatonic scale.
• Rimsky himself simply referred to it as the “tone-semitone scale.” The use of this scale is quite prominent in his tone poem Sadko, which he writes has having been directly influenced by the mediant, minor-third modulating tone poems of Franz Liszt (the only
non-Russian to make early use of the octatonic scale). His students, in turn, simply called it the “Rimsky scale!”

- Other origins point to the melodic elaboration by whole step of the diminished seventh triad. Be creating chromatic leading tones to each note of a diminished seventh chord, the mode 2 octatonic is created. By falling backwards by half-step into each note of a diminished seventh chord, the mode 1 octatonic is created. This implies that much of the early use of the octatonic comes from keyboard practice, as the tendency to embellish a melody shape by half step is a natural part of keyboard style, whether it’s jazz or advanced 19th century chromaticism.

- Throughout, an emphasis on the octatonic as useful for indicating the exotic, the “fantastic,” the esoteric, while diatonic harmony was used to indicate the rational. Often in stage settings, it set off a realm of mythical creatures and spirits with that of the human realm.

- By the time of Scriabin, the octatonic scale had become for him a central means for expressing the numinous, for pointing towards a realm of pure spirit, of a profoundly subtle and rarified state of human consciousness. Through his use of the octatonic and other unusual melodic and harmonic shapes (such as the mystic chord: C F# Bb E A D), he expressed his own inward journey towards pure spirit.

- In the later 20th century, and certainly in Stravinsky, who was no Eastern mystic, the octatonic scale had lost this sense of the ‘fantastic’ and the “esoteric” and had become simply another useful mode, albeit a fertile and deeply transformative one, for expressing new types of harmonic thought. It’s use furthered the art of composition away from common practice harmonies and towards a non-tonally based approach that eventually did away, in some circles, with the concept of tonal center altogether.

Readings on octatonic passages in Debussy, Ravel, Scriabin and Stravinsky (Jstor):