Straus Chapter 6
Part 1: Basic Concepts of Twelve-Tone Music

Joseph N. Straus. 2016. *Introduction to Post-Tonal Theory*, 4th ed. (New York: Norton), pp. 294-317.

"A series is a line (ordered succession) of pitch classes."

"A series may be presented in four orderings: *prime*, *retrograde*, *inversion*, and *retrograde-inversion*.
The transpositions of these orderings form a *series class* (or *row class*),
which constitutes a starting point for a musical composition."

– Joseph Straus, *Introduction to Post-Tonal Theory*

TERMS & CONCEPTS

TWELVE-TONE SERIES (§ 6.1, p. 294)
PC set vs. series
PC Set: *An unordered collection of pitch classes*
Series, or row: *An ordered "line" of pitch classes*

Role of the series (§ 6.1.2, p. 295)
A theme • A "scale" from which melodies and harmonies are drawn • A motive repository • A larger design with many embedded smaller designs, etc.

Series notation
Staff notation
Letter notation
Integer notation
   •. Fixed-zero (Straus 2016) vs movable zero
Em dash notation, pc letter names; e.g.,[1]
      D–C♯–A–B♭–F–E♭–E–C–A♭–G–F♯–B
List notation, integers; e.g.,
      2, 1, 9, 10, 5, 3, 4, 0, 8, 7, 6, 11
Order numbers, or order position:
   • 1-12 (Straus 2016)
   • P & I (1-12); R & RI (12-1) (Straus 2022)
   • 0-11 (Babbitt 1960)

BASIC OPERATIONS (§ 6.2, p. 295)
There are 4 possible *orderings* of the series:
      Prime (P)
      Retrograde (R)
      Inversion (I)
      Retrograde-inversion (RI)

Under T_n, there are 48 possible *series forms*:
      P_0 - P_{11}
      R_0 - R_{11}
      I_0 - I_{11}
      RI_0 - RI_{11}

Series Class (§ 6.2.7, p. 299)
12 x 12 matrix, or Babbitt square (§ 6.2.8, p. 301)

Interval succession of a series; e.g.,

      D–C♯–A–B♭–F–E♭–E–C–A♭–G–F♯–B

      opci: 11, 8, 1, 7, 10, 1, 8, 8, 11, 11, 5

Adjacent intervals (Ex. 6-7 & 6-8, p. 300)
Non-adjacent intervals
Interval predominance and exclusion
Relationships between series forms:
   P-related: P & P, I & I, R & R, RI & RI
   R-related: P & R, I & RI
   I-related: P & I, R & RI
   RI-related: P & RI, I & R

TWELVE COUNT (§ 6.2.9, p. 303)
A "low-level map" of a twelve-tone composition's basic structure
   1. Identify the series
   2. Construct a 12 x 12 matrix (optional)
   3. Identify the series form presentation(s) and put order numbers on all pitches in the score.

Series presentation and texture
Series presentation diagram, immediate repetitions, pedal points, series forms in counterpoint, series form overlap, pointillism, etc.

Segmental Subsets (§ 6.3, p. 307)
Any partitioning, or segmentation, of the series into subsets
Discrete trichords (3+3+3+3), tetrachords (4+4+4), and hexachords (6+6)
   • Partition notation: e.g., 3^4, 4^3 & 6^2
Other segmentations; e.g., 5+5+2

Invariants (§ 6.4, p. 311)
Any structure (e.g., interval, chord, line, etc.) that is preserved when the series is transformed

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[1] This is the series from Schoenberg's *Fourth String Quartet*, Op. 37 (1936).