Journey to the Heart of Music

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Example N
J. S. Bach - Prelude No.1
Heinrich Schenker's Ursatz Reduction

MUTABLE NUMBER ANALYSIS

Slowly, yet steadily over the years since his death, the idea's and insights of Heinrich Schenker (1868-1935) regarding the tonal canon have come to exercise an ever increasing influence upon current music theory and analysis. Fundamentally his view of the traditional pieces of the common practice was one of dynamic systems which could be analysed by a process of reduction to progressively more and more elemental structures: And in this regard, though he always insisted his style of analysis was an art rather than a science, his basic standpoint was not wholly dissimilar to the reductionist approach used in the physical sciences. Schenker looked at a tonal composition in terms of structural levels emanating from, or ultimately reducing to, the tonic chord; and through this hierarchical approach created a powerful, unified and yet flexible way of thinking about and understanding the broad swathe of tonal music. He labelled these levels *background, middleground(s)* (of which there could be many) and *foreground* -- the complete score with all its details of performance. One cannot but notice some points of similarity between Schenker's structural hierarchy and the columns of digits in mutable numbers: The fundamental nesting series which represents the key or tonal center -- *the background*, the interlinking middle level nested series -- *the middleground*, and the top level aggregated series which carries the (majority of) objective notes -- *the foreground*. Given this common ground, the analytical possibilities which might emerge from a meaningful integration of the MOS model with some portion of Schenkerian thinking, if it could be achieved, are intriguing to say the least.

What mutable numbers have in abundance is exactitude, each chord, each succeeding harmony is given an exact value in relation to the whole. But what the MOS model lacks is farsightedness: Each computational exchange, each step from chord to chord, is sufficient unto itself. No single modulation exchange has any great bearing on the next or gives any indication of what might lie further ahead. In contrast, one of the Schenkerian approach's strengths is in its directed prolongation of the tonic chord, spun out through any number of levels, so as to encompass the whole composition through its many (or not so many) twists and turns. However, Schenker's analytical technique has been criticised for a certain arbitrary subjectivity in its

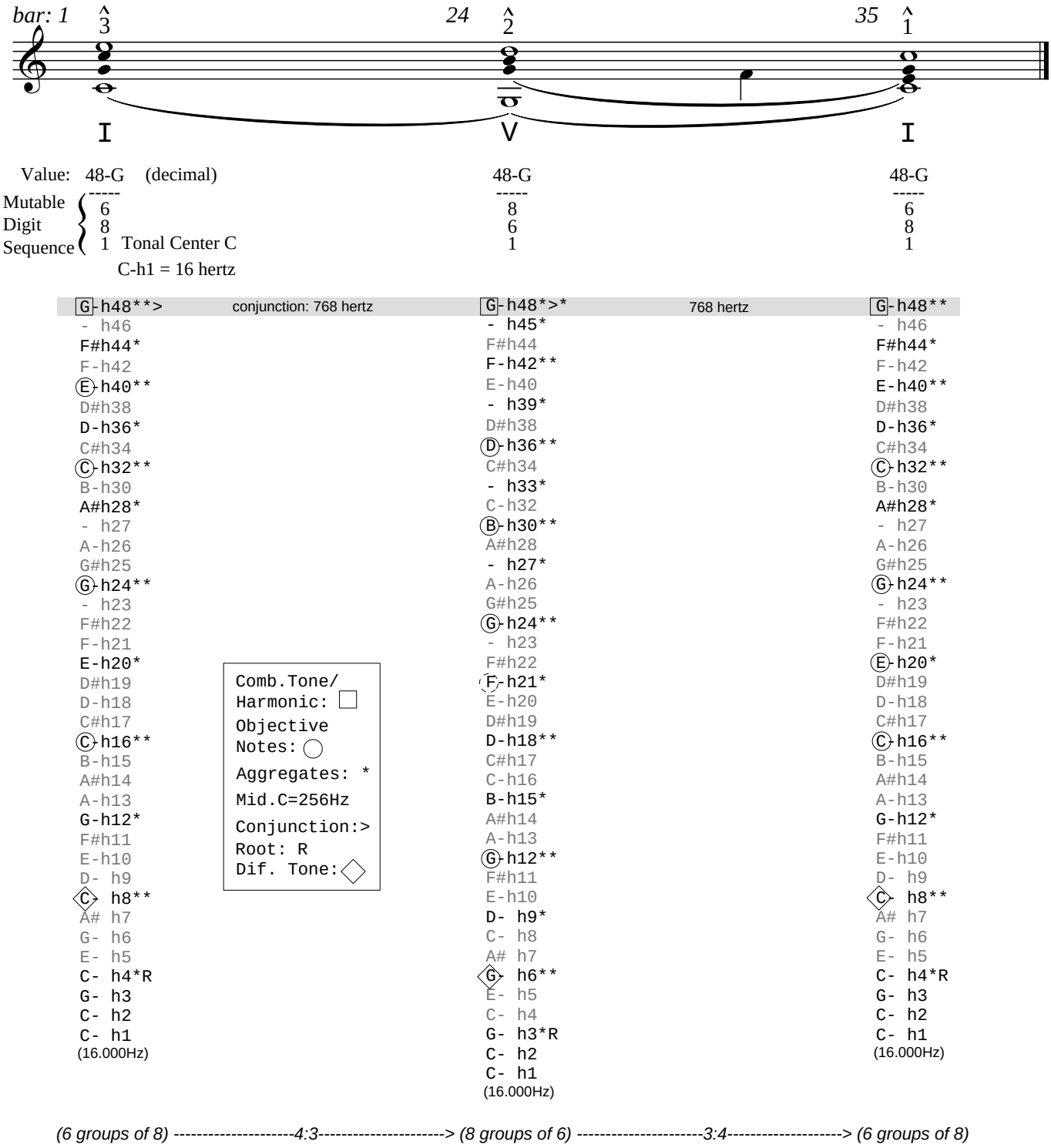

Figure N.1 This example of Heinrich Schenker's analytical technique appears in *Five Graphic Analyses* (Dover, 1969) and represents the final level of reduction -- the background or 'Ursatz'.

application. Depending on the choices made by the analyst, different interpretations of the same material can emerge, each equally valid Schenkerian analyses. Perhaps these two strengths, exactitude and prolongation, could be combined, with each approach cancelling out the others weakness?