

Serial Technique in Toshiro Mayuzumi's 'Campanology Effect'

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In the compositions of Toshiro Mayuzumi (1929-1997), sounds produced from cluster-like dissonant 'chords' (in the loose sense of the word) are often important features. In the 'campanology effect' introduced in the *Nirvana Symphony* (1958), a representative piece, the repetitive use of multiple chords derived from spectral analysis of the sound of Japanese temple bells is an aspect of an acoustic technique where a complex mixed sound is produced through the accumulation of tones.

An analysis of such works by Mayuzumi, particularly his compositions dating from around the mid-1950s to 1960, shows that a serial technique was used to form these sounds. In this paper, the method of forming sounds through vertical accumulation of tone rows, termed 'accumulative usage', is considered to have played an important role in Mayuzumi's compositions. The characteristic qualities resulting from the use of techniques such as the grouping of series and ostinatos featuring accumulative usage are considered.

The chords used in the 'campanology effect' have, until now, been emphasized as having been derived from tonal analysis of the sound of Japanese temple bells. However, a new interpretation that these chords were formed by the grouping of series is proposed here. During the time period in question, when the serial technique was often used with post-Webern pointillism, Mayuzumi's use of the serial technique as a method of overall sound formation can be considered unique.