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The use of numerals in experimental notation

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This paper will discuss the use of numerals in experimental music notation, investigating how they signify more than just a mathematical object but help to convey particular attitudes towards performance to the interpreter.

One facet of certain strands in experimental composition is that of the music existing “in and of itself” (Manfred Werder): no external agent is represented through the compositional process, and much care is taken to convey this phenomenological approach to sound production within the musical score. Many of these pieces rely on simple counting processes, following number patterns and the use of repetition to generate material; what becomes apparent about the way these pieces are notated, is that all text instructions are stated initially, thereby leaving the main body of the score as numerical schemata only. How does this 'numeral-only' approach affect the strategy of the performer? Does the abstract nature of individual numbers communicate something extra-mathematical to the reader, something that would bring about a particular approach to performance?

The varied use of numerals in scores will be discussed; Christian Wolff's score for *Edges* places a '3' amongst many contrasting other symbols, in a seemingly provocative act for the 3 to be interpreted in a range of ways. A list of numbers (something I have explored in some of my own compositions) indicates a single continuum through which to carefully proceed, and the grid of numbers, such as that found in Phill Niblock's *Five More String Quartets* and Michael Pisaro's *pi*, ensures the performer immediately perceives each single numeral's position amongst the others, removing any unique individual characteristics.

Pisaro has described the “necessary complement” between precision of number and indeterminacy of language in notation (Pisaro, 2009: 36). The paper will investigate this notion further, examining the relationship between text instructions with varying levels of indeterminacy and ambiguity, supporting a numeral-only score.

The role of the performer is discussed, building upon pianist Philip Thomas' “non-interventionist” model for performance. This approach exists “without reference to any external stylistic code” so as to “focus upon the production of sound within the parameters of the score” (Thomas, 2009: 91). This model is applied to various numerical-based scores, and along with a study of relevant recordings, the non-interventionist ideal is propounded with regard to the use of numerals as communication of intention.

The younger generation are represented by Taylan Susam, Joseph Kudirka and John Lely, and the paper explores whether there is any notable progressive lineage in the manner in which numerals as carriers of content in-and-of-themselves are employed by younger composers. The relationship between indeterminacy of language and the heightened accuracy offered by numerals is explored further within their music, and the friction between the two concepts emerging from these scores provides an avenue for both performative and compositional research, opening up various creative possibilities for the future.

## References

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