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# EDITORIAL

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When, some months before publication of the first issue of *Organised Sound*, Iannis Xenakis sent the editors a previously unpublished set of lecture notes for possible inclusion in the journal, it seemed natural to locate the resulting article within the present issue, whose major theme is ‘algorithmic composition’ (AC). Whilst Xenakis himself does not use this term, it is evident that he has had a major influence on those who do, as evidenced by his citations in most of the other articles in this issue. Not only has Xenakis been an original thinker in this domain, his article as presented here also illuminates many of his compositional practices, indicated as the working-out of probabilistic formulae. The article ranges widely, with a section on the UPIC system, and we believe it also captures much of the empathetic, intensely enquiring nature of a mind deeply versed in both scientific and artistic modes of humanist thought.

We have been delighted by the range of authors’ responses to algorithmic composition. It is clear from the variety of articles presented here that the topic is one which is still evolving through a set of as yet incompletely expressed dynamic principles. It would not be too fanciful to suggest that a new paradigm is indicated; one which de-emphasises a composer’s individual psyche in favour of an emerging discovery – or rediscovery – of universal musical shaping tools, developed and optimised through digital technology.

There are some people, we admit, who object to the term ‘algorithmic composition’ itself. One objection is based on the idea that the word ‘algorithm’ implies a static solution, and that, even when iterated through time, its application does not sufficiently broadly encompass the majority of compositional practices. There are others who believe that all composing is algorithmic in nature, but that most composers have not brought to formal definition their compositional tendencies. If one can admit whimsical choice on the part of a composer as merely one type of randomness, there is perhaps no reason why even such evidently informal operations cannot be successfully modelled in a dynamic algorithm.

Whilst recognising the variety of response to the topic, we note with pleasure the range of styles – one

might almost say ‘tone of voice’ – that the authors have adopted. Both the concisely formal and the friendly, chatty tone are acceptable if there is something interesting to communicate – and, in this issue, we believe there is much in this category.

Following from Xenakis’ important contribution, Bruce Jacob controversially divides the compositional process into inspiration and perspiration, and assigns algorithmic activity to the latter. However, much of his argument is also important in broader philosophical terms. Warren Burt introduces some of his compositional algorithmic ideas as developed through a number of his works. Dominique Richard takes a broadly cultural view of the algorithmic phenomenon, while Francesco Giomi introduces us to the work of a pioneer of algorithmic composition in Italy, Pietro Grossi.

In this issue’s Tutorial Article, we have taken a somewhat different position from previous issues with regard to its content. Rather than explain in some depth a technical feature, David Worrall’s contribution discusses an integrated approach to the teaching of students in a university course in music technology, one emphasising the applied mathematical understanding. We hope that the details of this innovative course may be an inspiration to many others involved in the teaching of music technology at the tertiary level.

The Student Article, by Andrew Martin, takes a direction inspired by computer pioneer Alan Turing, and illustrates the resulting reaction–diffusion system in his work *cicada*. Finally, Jonathan Impett focuses on his work *Mirror-Rite*, for ‘meta-trumpet’, computer and live electronics, and exemplifies the possibility of extending algorithmic thinking beyond the compositional, to systems designed for real-time performance.

The nominated theme has virtually saturated this issue. We do not apologise for this, but rather take it as an indication of the lively nature of its interest for our contributors – and therefore, we hope, our readers. It is likely that the topic will be revisited in future issues. Meanwhile, we do welcome readers’ letters on this as on other relevant topics.