Music and mathematics

Olivier Revault d'Allones, questioning Iannis Xenakis, in *Arts/Sciences: Alloys*:

> "musical thinking has not sufficiently utilized all the mathematical resources it could… When Xenakis realized that for a musician, pitch scales constitute a well-ordered group, and abelian scale (a trivial definition for a mathematician's mind), this put the 'bug in his ear', as they say. There are well-ordered groups; therefore, perhaps that are groups that are not orderly. Here's an abelian scale, can't there be a scale which is not? We understand very well how musical thought can thereby by fertilized by mathematics, but given the relatively elementary level of mathematics in these concepts, I would say that the interest is null for mathematics" (p. 15)