

Messiaen's Seven Modes of Limited Transposition


On Symmetry under T_n


"Based on our present chromatic system, a tempered system of twelve sounds, these modes are formed of several symmetrical groups, the last note of each group always being common with the first of the following group. At the end of a certain number of chromatic transpositions which varies with each mode, they are no longer transposable."


On "the charm of impossibilities"


"All of the modes of limited transpositions can be used melodically, and especially harmonically, melody and harmonies never leaving the notes of the mode. We spoke in Chapter I of the the charm of impossibilities; their impossibility of transposition makes their strange charm. They are at once in the atmosphere of several tonalities, *without polytonality*, the composer being free to give predominance to one of the tonalities or to leave the tonal impression unsettled. Their series is closed. It is mathematically impossible to find others of them, at least in our tempered system of twelve semitones."

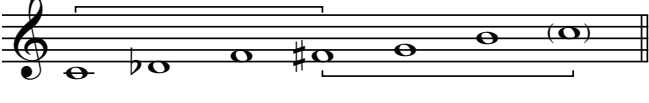
The Technique of My Musical Language, Olivier Messiaen


Mode 1 


Mode 2 

Mode 3 

Mode 4 

Mode 5 

Mode 6 

Mode 7 

—— - symmetrical group