

‘Diagonal movement’ and its connection to instrumental techniques

Harmony Signing had its origins in a *cappella* vocal polyphony, and its voice-leading principles were strongly influenced by Fux’s account of the steps involved in developing an understanding of the stylistic features of Renaissance practice. However, underpinning this has always in addition been the exploration of the properties of the harmonic series, motivated by the intention to help participants discriminate the different intervals and their functions through eliciting an instinctive grasp of their acoustic origins. Nevertheless, the development of distinctively instrumental styles from the later Renaissance and early Baroque periods onwards brought about stylistic changes arising from the varied techniques of instrumental performance compared to the vocal contour which previously represented the norm for composed music. It seemed important to access some aspects of these, not least in preparing participants for the eventual potential in their employment of instrumental performance in response to Harmony Signing.

Amongst the stylistic features influenced by instrumental techniques that began to be introduced were: more extensive scalar passages; arpeggiation; intervals associated with overblowing on wind instruments; and intervals arising from string-crossing on instruments of the bowed string family. Perhaps the most characteristic sound, which permeates a great deal of Baroque and Classical orchestral music, is the ‘diagonal’ nature of two-part textures arising in the response of natural horns and trumpets to the available partials of the harmonic series.

Why refer to these as ‘diagonal’? A series of exercises demonstrates this. When commencing melodic signing, as well as the voice-leading in two parts of species counterpoint, we took care to move by step. Vocal music in two parts, like the early Medieval carols *Edi beo thu hevene quene* and *The Hymn to Saint Magnus*, present precisely these characteristics:

<https://www.youtube.com/watch?v=CIBITJOe9vs>

<https://www.youtube.com/watch?v=A0kfox6qYS4>

Employing Kodály signs in both hands, a simple version of the underlying technique can be directed as follows:

Voice 1 *Me – Soh – Fa – Mi – Doh – Re – Mi – Fa – La – Soh – Fa – Mi* _____
Voice 2 *Doh - Mi – Re – Doh – La – Ti – Doh – Re – Fa – Mi – Re – Doh* _____

The parallel movement here and, for the most part, evident in the Medieval carols presents a very even, gentle contour.

On natural trumpets and horns, pitches were for the most part restricted to the notes of the harmonic series. This sequence of pitches is inherently uneven due to its origins in the frequency ratios accessible: 1:1; 2:1; 3:2; 4:3; 5:4; 6:5, etc. – each interval diminishing in size. A two-part melody exploiting these available pitches as they present themselves on these early brass instruments gives rise to the following:

Voice 1 *Doh¹ - Re¹ – Mi¹ – Soh¹ – Mi¹ – Re¹ – Doh¹ – Soh – Mi* _____
Voice 2 *Mi – Soh – Doh¹ – Mi¹ – Doh¹ – Soh – Mi – Re – Doh* _____

The uneven progress through the range required seems to conform to the description 'diagonal' in denoting the difference to the step-wise conventions of choral style. **Video 42** conveys the signing and vocal performance of a musical passage embracing these characteristics.

This section has dealt with transferring Harmony Signing to the use of instruments. It is important to bear in mind that this may involve different voice-leading characteristics that best suit the techniques of specific instruments. These will, indeed, vary from one to another, and even within instrumental families: one of the delights and opportunities involved in arranging and orchestration.