

Overtone Etudes

Etude 1: Second Formant Tuning

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[u] gliss [i] gliss [u] [ʊ] gliss [ɪ] gliss [ʊ] [o] gliss [e] gliss [o]

[ɔ] gliss [ɛ] gliss [ɔ] [ɑ] gliss [æ] gliss [ɑ]

The Second Formant Tuning etude utilizes vowel shapes that share similar first formant energy boosts so that singers can focus on the harmonic glide boosted by their second formant energy boost. Once awareness of the second formant energy boost is reached, try changing the fundamental frequency (e.g. sung pitch). For further study, or performance, encourage singers to choose their own individual fundamentals and vowel glisses.

Etude 2: Overtone Singing

while singing [ʌ/ɹ], gliss between [u]-[i]

[ʌ/ɹ] [ʌ/ɹ] [u] gliss [ʌ/ɹ] gliss [ʌ/ɹ] [u]

Overtone Singing is the result of several focused areas of the vocal tract: at the lower tongue [ɹ], at the front of the tongue [ʌ], and at the lips [u]-[i] gliss. Eventually micromovements create pitch change, but getting used to the mechanics can take some time. Try each of the three alone, and then in combination. The numbers signify the selected overtone.

Etude 3: Melodic Overtone Singing

"Bring Me Little Water, Sylvie"

Melodic Overtone Singing utilizes focused areas of the vocal tract (see Etude 2: Overtone Singing) to create melodic structure from isolated harmonics from the overtone series. The harmonics highlighted in the lower part outline the folk melody "Bring Me Little Water, Sylvie", while the upper part creates a harmony from the overtones. Because the overtone series is limited, only certain pitches are available with each fundamental frequency. For more complex melodies, the fundamental has to change as well. Have everyone sing the lower part, and then the higher part, then put the two together. Practice playing the overtones on the piano and/or having one singer whistle them to help focus the ears. Instead of thinking about the vowel shape, let your ears guide pitch changes. Once you've mastered this one, try different simple melodies using a sustained fundamental.

IPA vowel and consonant shapes can be found and demonstrated on several IPA websites.

The ones used here include:

- [l] as in Larry
- [r] as in Run
- [u] as in nOOOn
- [i] as in sEEEn
- [o] as in shOne
- [ʊ] as in bOOOk
- [ɪ] as in blt
- [e] as in bAy
- [ɔ] as in crAWl
- [ɛ] as in bEt
- [ɑ] as in fAther
- [æ] as in cAt