

MTO 22.1 Examples: Heidemann, Describing Vocal Timbre

(Note: audio, video, and other interactive examples are only available online) http://www.mtosmt.org/issues/mto.16.22.1/mto.16.22.1.heidemann.php

Figure 1a. Overview of Vocal Tract

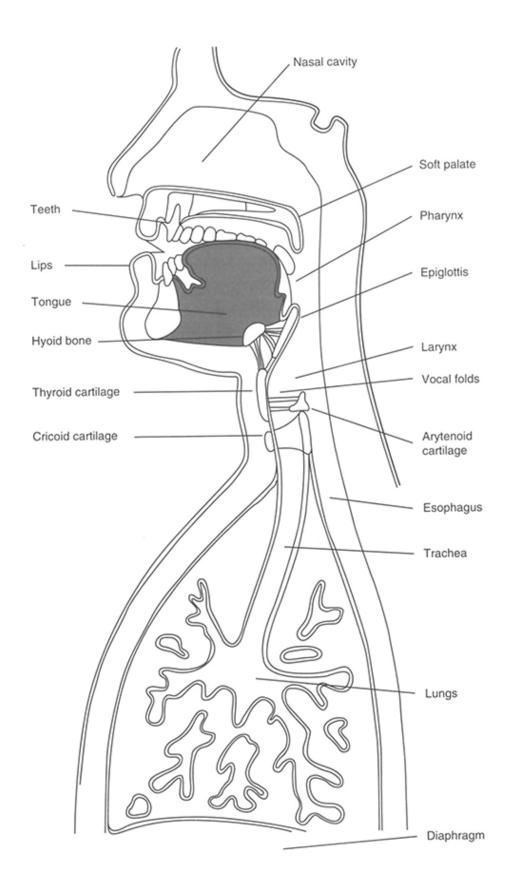


Figure 1b. Supraglottal Vocal Tract

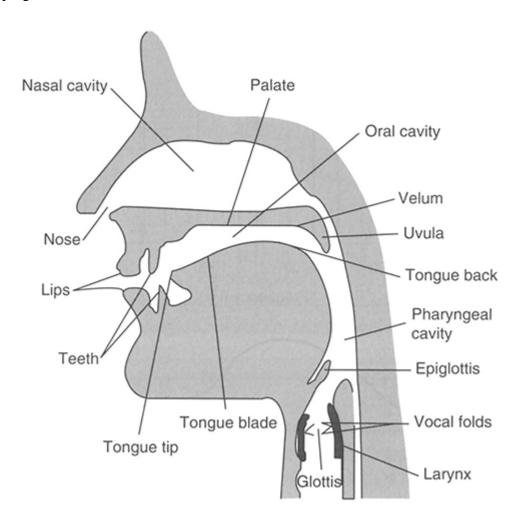


 Table 1. Four Elements of Vocal Production and Related Terms and Concepts

Element of Vocal Production (Perceived)	Related Timbral Classifications	Some Related Elements of Vocal Performance
Movement of true vocal folds - manner of vibration as impacted by degrees of adduction and tension, air flow Vibration in the ventricular ("false") folds, aryepiglottic folds, and epiglottis	General: breathy hissing, grainy whisper harsh hoarse creaky, vocal fry supraglottic distortion: scream, growl breaks Onset: breathy creaky glottal smooth	Paralinguistic ornament, pitch
Position of vocal tract - larynx height - larynx tilt - pharynx area - velum height - mouth position (lips, tongue, jaw)	oral twang nasal twang speech-like sob	Pitch, vibrato, lyrics, phonemes, accent, enunciation
Sympathetic vibration - head - face, nasal passages - neck, chest	nasal resonant whistle falsetto head mix chest	Pitch, melody, dynamics
Breath support and muscular anchoring	(usually implied in other timbre descriptors, like belt or breathy)	Dynamics, paralinguistic ornament

Figure 2. Model of the Larynx used in Estill Voice Training

