

The use of harmonics can aid performances in several ways:

- There are several chambers in the front of the facial mask that accentuate the resonance of the higher harmonics. These chambers open when the singer smiles. Smiling, therefore, not only adds to the attractive appearance of the group but it also contributes to the brilliance and excitement of their sounds because of the additional accentuated higher harmonics (See *Tonal Window* - p. 54).
- The concepts of harmonics can be used when tuning chords, especially in *a cappella* singing.
- Harmonics can be used for special effects, as in the following example:

80) 81) 82)

83) 84) 85)

no tempo
aleatoric effect

BRING SOUND TO
FRONT OF MOUTH
TO EMPHASIZE
CHANGING COMBI-
NATIONS OF OVER-
TONES OF "we-o"

Figure 3: *Harmonic special effects* - (CD 1 - Track 1)

The understanding of harmonics is an important aspect of choral singing. Harmonics are what make Renaissance music and related styles sound superb in many cathedrals—and pop, jazz, and show choirs sound impressive over a P.A. system. Understanding how to use harmonics can aid intonation, pronunciation, blend, tuning, and intensity. Experimenting with harmonics can also be fun. Try the previous *wow* example (p. 49) in the shower stall, and note how the harmonics will be emphasized.