sflib CHOIR

The 273 mono and 273 stereo soundfiles in this directory feature a medium sized SATB (soprano/alto/tenor/bass) chorus, recorded in a live hall. (Most of the soundfiles end with a reverb tail lasting about 3/4 of a second.) Each soundfile exists in 2 versions: a mono version and a stereo version, the latter identified by the character string ST at the beginning of the soundfile name. All of the mono soundfiles are normalized to a peak amplitude of 32000. Most of the stereo versions have not been normalized, but their peak amplitudes generally are 20000 or greater. The panning of the stereo versions generally is centered, with some (although not very too much) left-right separation of individual voices.

The choir directory includes both voiced (sung) and unvoiced (spoken, shouted, whispered or whistled) soundfiles. Generally, the unvoiced soundfiles lack a clearly defined pitch. The names of these unvoiced soundfiles include the character string "unvchoir" (for "unvoiced choir"), while the names of sung soundfiles include the simpler character string "choir."

These soundfiles are grouped and discussed below in the following broad categories:
   I. Groups of SUNG TONES, LONG DURATION
   II. Groups of SUNG TONES, SHORT DURATION
   III. MISCELLANEOUS SUNG (OR PITCHED) SOUNDFILES (special effects; clusters, glissandi, whistling)
   IV. UNVOICED SOUNDS (speaking, shouting, screaming, laughing, grunting, etc.)

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I. Groups of SUNG TONES, LONG DURATION:
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1. LONG TONE SATB VOWEL AND CONSONANT MULTISAMPLES:

The majority of the long tone multisample sets include 15 mono (and 15 corresponding stereo) soundfiles, pitched at intervals a minor third apart between ef2 and a5:
   bass voices: ef2 fs2 a2 c3
   tenor voices: ef3 fs3 a3 c4
   alto voices: ef4 fs4 a4 c5
   soprano voices: ef5 fs5 a5
Exceptions (multisample sets with fewer soundfiles, beginning on a pitch higher than ef2 and/or ending on a lower pitch than a5, and thus covering a smaller pitch range) are noted below.

Because the samples are pitched a minor third apart, one can obtain a complete chromatic scale (usually between d2 and bf5) without transposing any soundfile up or down by more than a minor second. As a result, significant formant shifts (and resulting timbral distortion) can be avoided.

These long tones have steady state durations of between 5 and 7 seconds, followed by a decay and reverberant tail of about .75 second.

Multisample sets in this group include:

1.1 Long, voiced (sung) vowel phonemes:
   --> *ah* 15 multisamples, ef2 to a5 (choir.ah.bass.ef2 through choir.ah.sop.a5
        and corresponding stereo versions)
   --> *ee* 15 multisamples, ef2 to a5 (choir.ee.bass.ef2 through choir.ee.sop.a5)
   --> *eh* 15 multisamples, ef2 to a5 (choir.eh.bass.ef2 through choir.eh.sop.a5)
   --> *ih* 15 multisamples, ef2 to a5 (choir.ih.bass.ef2 through choir.ih.sop.a5)
   --> *oh* 15 multisamples, ef2 to a5 (choir.oh.bass.ef2 through choir.oh.sop.a5)

1.2 Long, voiced (sung) consonant phonemes:
   --> *mm* 11 multisamples, fs2 to a5 (choir.mm.bass.fs2 through choir.mm.alto.c5)
   --> *rr* 14 multisamples, ef2 to fs5 (choir.rr.bass.ef2 through choir.rr.sop.fs5)
   --> *vv* 14 multisamples, ef2 to fs5 (choir.vv.bass.ef2 through choir.vv.sop.fs5)
   --> *zz* 14 multisamples, ef2 to fs5 (choir.zz.bass.ef2 through choir.zz.sop.fs5)

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2. MULTISAMPLED TONES IN OCTAVES ON DIPHTHONGS (PHONEME GLIDES)

These 8 multisample soundfiles all include diphthongal glides between three successive phonemes:

    --> In 4 soundfiles (and their stereo counterparts) the sung phoneme
      changes smoothly from "hee" to "ah" to "oh" (*hee-ah-oh*).
    --> In the other 4 soundfiles (and their stereo counterparts) the sung phoneme
      glides from "hoo" to "ah" to "ee" (*hoo-ah-ee*).

The choir sings in double octaves, and the four multisampled pitches for both groups are:

    fs2:fs3:fs4 (lowest)
    a2:a3:a4
    c3:c4:c5
    ef3:ef4:ef5 (highest)

Note that only the top octave (fs4, a4, c5 or ef5) is identified in the soundfile names(e.g. choir.oct.hoo-ah-ee.fs4 and choir.oct.hee-ah-oh.c5).

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3. LONG TONE BASS PHONEME MULTISAMPLES

The names of the 24 soundfiles in this collection begin with the character string "basschoir," and include only bass voices. There are four groups of multisamples on the phonemes
  --> *homm*
  --> *hou*
  --> *vomm*
  --> *zomm*

Each of these 4 phonemes, in turn, includes 4 multisample soundfiles on the pitches ef2, fs2, a2,c3,ef3 and fs3.

Most of these soundfiles have pronounced, accented attacks, lasting about 1/4 second, on the opening consonant portion of the phoneme. These soundfiles average about 5 seconds in duration. The steady state portion of these tones (minus the reverb tail and the opening attack) is about 1 second less than the soundfile duration.

4. Two FEMALE CHOIR MULTISAMPLES *on neutral syllables*

    femchoir.a4 and *femchoir.c5* : durations are about 4.2 seconds

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II. Groups of SUNG TONES, SHORT DURATION:
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5. SHORT TONE PHONEMES,DOUBLE OCTAVE MULTISAMPLES

The 32 soundfiles in this group , whose names begin with the character string choir.oct, are short tones (averaging a little more than a second in duration plus a 3/4 second reverb decay) on the phonemes
  --> *fa*
  --> *ha*
  --> *hoo*
  --> *tn"*

Each tone is sung in 2 octave "unisons" on one of the following pitch classes:

    ef2 : ef3 : ef4 (the lowest pitched tone within each group)
    fs2 : fs3 : fs4
    a2 : a3 : a4
    c3 : c4 : c5 (the highest pitched tone within each group)

Two versions, labeled "1" and "2," are available for each tone. Thus *choir.oct.fa1.ef* and *choir.oct.fa2.ef* provide alternate versions of the phoneme "fa" sung in octaves on the pitch class e-flat, while *choir.oct.ha1.fs* and *choir.oct.ha2.fs* provide 2 variants of the phoneme "ha" sung in octaves on the pitch class f-sharp.

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III. MISCELLANEOUS SUNG (OR PITCHED) SOUNDFILES
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6. Glissandi:
 --> *choir.glissup.d4-d5* : sung in octaves (only the top, soprano octave is indicated in the soundfile name); a one octave upward glissando
 --> *choir.glissdn.d5-d4* : similar, but a one octave downward glissando

7. Clusters:
 --> *choir.clus.lo* : SATB cluster in low pitch range;
 --> *choir.clus.mid* : SATB cluster in mid-high pitch range
 --> *choir.clus.hi.1* and choir.clus.hi.2 : SATB cluster in high pitch range
 --> *choir.clus.fem* : cluster, female choir
 --> *choir.clus.fem.rand* : cluster, female choir with random pitch movement
 --> *choir.clus.male* : cluster, male choir
 --> *choir.clus.gliss.down* and *choir.clus.gliss.up* : clusters with downward or upward glissandi
 --> *choir.gliss.endless.1* and *choir.gliss.endless.2* : the individual voices glissando
   up and down continuously in clusters, ending with a crescendo ; #2 is higher pitched
 --> *choir.c4-clus and choir.fs4-clus* : glissando from a unison to a cluster
 --> *choir.clus-c4 and choir.clus-fs4* : glissando from a cluster to a unison

8. Rapid tremolo fluttering tones
 --> *choir.flutter.clus* (cluster) and *choir.flutter.oct.a4* (octave a3/a4)

9. Whistling :
 --> *choir.whist.c6* : unison on c6
 --> *choir.whist.clus.hi* : high pitched cluster
 --> *choir.whist.glissdown* : descending cluster

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IV. UNVOICED SOUNDFILES
(spoken, shouted or whispered, generally without a clear pitch)
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The names of all unvoiced choir soundfiles begin with the character string "unvchoir" or "STunvchoir".

10. CONSONANTS There are two groups of unvoiced soundfiles in which consonants are declaimed:
10.1 short soundfiles, on the consonants
     --> *g*
     --> *k*
     --> *t* and
     --> *ts*
The names of these 8 mono and corresponding 8 stereo soundfiles include the character string *.cons* There are two variants (separate recordings) for each of the four consonants, labeled *1* and *2* within the soundfile names (e.g. *unvchoir.cons.g.1* and *unvchoir.cons.g.2*).

10.2 long soundfiles (c. 4 - 5 seconds) on consonant phonemes
     --> *ff*
     --> *hh*
     --> *sh*
     --> *ss*
 The names of these 4 mono and 4 stereo soundfiles include the character string *.cons.long*

11. SPOKEN OR SHOUTED PHONEMES

There are 27 mono (and 27 corresponding stereo) short soundfiles in this category, nine each on the phonemes
     --> *hah*
     --> *hoo*
     --> *wah*
Each of these phonese is declaimed in 2 variants by full choir (e.g. *unvchoir.hah.all.1* and

unvchoir.hah.all.2), by female voices (e.g. *unvchoir.wah.fem.1* and *unvchoir.wah.fem.2*) and by male voices (e.g. *unvchoir.hoo.male.1* and *unvchoir.hoo.male.2*).

12. RIPS

There are 7 mono (and 7 stereo) short "rips" -- unvoiced upward or downward glissandi. The four mono and four stereo soundfiles whose names include the character string "flutter" (e.g. *unvchoir.rip.flutter.dn1*) are 3-5 seconds in duration and combine tremolo fluttering with glissandi. The three *unvchoir.rip.hi.dn* soundfiles are high pitched, rapid "falls."

13. MISCELLANEOUS UNVOICED SOUNDFILES

These include

--> laughing (*unvchoir.laughs.long, unvchoir.laughs.short, unvchoir.laughs.fem*)
--> *chattering (unvchoir.chatter.lo* and *unvchoir.chatter.hi*)
--> screaming (*unvchoir.scream.all* and *unvchoir.scream.fem*)
--> very high pitched whispering: *unvchoir.whisp.hi*
--> coughs (*unvchoir.cough1* and *unvchoir.cough2*)
--> grunting : 4 grunts, each in two versions (*unvchoir.grunt.1-1, 1-2,*
   2-1, 2-2, 3-1, 3-2, 4-1, 4-2)

All of the soundfiles within this directory were taken from a commercial cd called "Classical Choir" produced by Peter Siedlaczek. They are licensed for use by ECMC users on ECMC and home systems but are copyrighted and cannot be copied to other systems or distributed.

Last updated Dec. 14, 2001 by A. S.