



*abaGa baBatur*

(#88, 2014/16)

Michael Edward Edgerton

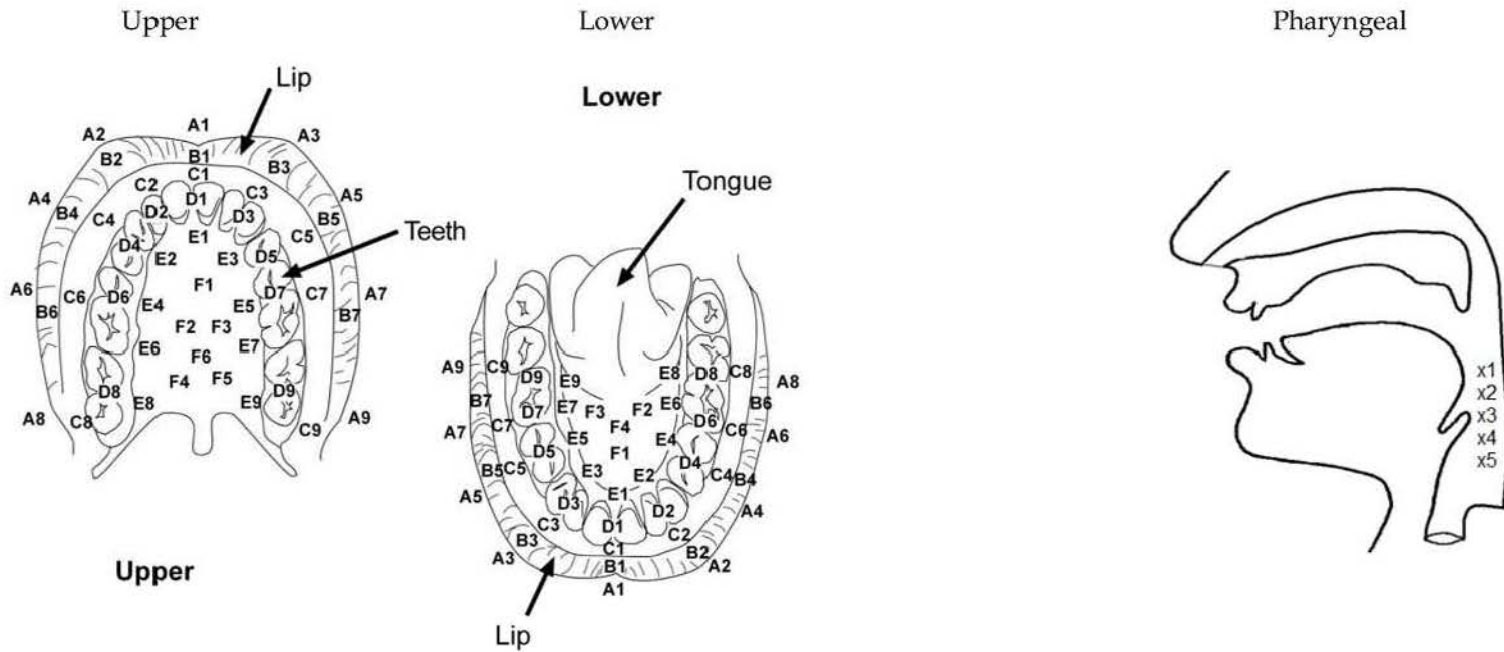
for SATB, 4 voices

Dedicated to Olaf Katzer

# PERFORMANCE NOTES

*abaGa baġatur* (uncle hero) refers to the second Mongol ruler in Persia, Abaqa Khan from 1265 to 1282. During this time the Mongol empire was consumed with civil war and invasion, which led to the development of powerful alliances, often through marriage. In 1265, Abaqa Khan's father, Hulagu Khan, had negotiated with Byzantine emperor Michael VIII Palaiologos to add a daughter of the Byzantine imperial family to the number of Hulagu's wives. Michael selected his illegitimate daughter Maria Palaiologina, but before she arrived in Persia, Hulagu died, so she was married to the Prince Abaqa Khan instead. This composition is a short glimpse of war, love and alliance.

The Mongolian language features many guttural sounds, and being a living language, has evolved over time. This scene will compare the articulation of ancient, *abaGa baġatur* and modern, *abaga baatar(a)* Mongolian, through the use and disuse of palatal, velar and uvular fricatives, trills and plosives. Then contrasting natural language use will be those experimental articulatory procedures identified throughout the score and based upon a novel articulatory mapping of the vocal tract. The locations of this mapping are indicated below. The symbols ○ = tongue tip; □ = tongue blade;  = tongue on bottom palate



For SATB, four voices

Microphones can help to capture the softer, unvoiced sounds. It is important the components of each multiphonic be as balanced as possible.

Overall, balance of dynamics is an important issue in two ways:

1) Between voices

Naturally balance is always present and an issue, but in *abaGa bakatur* balance becomes a far greater issue, because the use of unvoiced sounds are more prominent than normal, as they are freed from the yoke of articulation and boundary definition. This means that some of the unvoiced sounds will attain a sense of pitch and/or stability, while others will retain a noisy quality. So how does this affect balance? Well the production of the tongue trill has a far greater range of loudness than saliva sounds, so that a saliva sound at *ff* will have a much softer volume than a *ff* produced with tongue trill. Therefore I've tried to paint in broad strokes the overall sense of loudness levels and change. In general the sounds should try to balance, emerge or disappear into or out of the texture

2) Within voices

Often each voice will feature multiple elements laid out in multiple strata – for example the combination of lip buzz + vocal fold (sung) pitch + tongue friction. The idea is that unvoiced sounds are not just secondary noise sources appended to primary pitch material, but rather may be the primary focus. Unvoiced sounds can feature a wide variety of outputs but the singer has to be creative and willing to allow changes to occur between any of the strata involved. There is perhaps never one idealized state to achieve – rather allow the nonlinearity of the voice to foster and grow. Most sounds will feature considerable temporal change – allow and embrace them – getting back to the nonlinearity of this system – allow the sounds to morph in unpredictable ways – sometimes the system needs to be pushed to an extreme, so that the ratios of the multidimensional elements being examined will alter radically.

Due to the often radical temporal and morphological (nonlinear) aspects of the system, as well as to the different abilities between singers, it is not reasonable to specify the dynamical values for each strata too tightly.

In other words: ENGAGE, ANIMATE & make PROMINENT 3D elements – then a nearly constant change of timbral and dynamical class should result

The score identifies a number of multiphonics (either voiced and/or unvoiced) that correspond with those used in my composition, **Anaphora** (#62, 2001):

6 Buccal Salival *Frication* WITH Dental Stops (mm. 12-13, 18-19, 32-33)


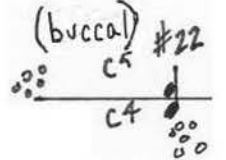

6.a. Buccal Salival *Frication* WITH Dental Stops WITH Vocal Fold *Pitch* (mm. 12-13, 33)



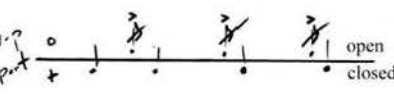
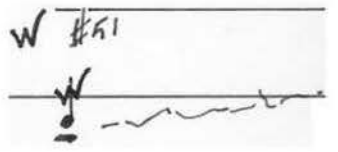
- 11 Pharyngeal *Frication* WITH Bilabial or Lingua-Dental *Whistle* (mm. 1, 2, 11-12, 17)
- 12 Uvular *Tremolo* WITH Vocal Fold *Pitch* (nasal) (mm. 10-11, 14-15, 17-18, 25-28)
- 15 Bilabial *Flutter* WITH Tongue *Flutter* (mm. 23-25)
- 15.a. Bilabial *Flutter* WITH Tongue *Flutter* WITH Vocal Fold *Pitch* (mm. 2)
- 16 Pharyngeal *Frication* WITH Vocal Fold *Pitch* (mm. 4-6, 8-11, 18, 27-30, (29), 31, 32-33, 35)
- 18 Oral Cavity *Frication* WITH Bilabial Or Lingua-Dental *Whistle* (mm. 19-21)
- 18.a. Oral Cavity *Frication* WITH Bilabial Or Lingua-Dental *Whistle* WITH Vocal Fold *Pitch* (mm. 27, 36)
- 19 Vocal Fold *Pitch* WITH Articulated Velo-Pharyngeal Port *Valving* (mm. 37-40, 43-48)
- 21 Buccal Salival *Frication* WITH Tongue *Trill* (mm. 14, 17-18)
- 21.a. Buccal Salival *Frication* WITH Tongue *Trill* WITH Vocal Fold *Pitch* (mm. 35)
- 22 Buccal Salival *Frication* WITH Lingua-Alveolar *Frication* (mm. 2-4, 21-22)
- 22.a. Buccal Salival *Frication* WITH Front Tongue *Trill* WITH Lingua-Alveolar *Frication* (mm. 1-2, 16)
- 24 Glottal *Pulses* UPON Vocal Fold *Pitch* WITH Bilingual *Trills* (mm. 6, 7-11, 18-19)
- 36 Bilabial *Buzz* WITH Pharyngeal *Frication* (mm. 19, 31)
- 36.a. Bilabial *Flutter* WITH Pharyngeal *Frication* (mm. 20)
- 37 Bilabial *Buzz* WITH Pharyngeal *Frication* WITH Vocal Fold *Pitch* (mm. 29-32, 34-35)
- 37.a. Bilabial *Buzz* WITH Vocal Fold *Pitch* (30, 38-39, 41, 43-44, 48)
- 37.b. Bilabial *Flutter* WITH Vocal Fold *Pitch* (mm. 37, 39-40, 42, 45-48)
- 44 Bilabial *Buzz* WITH Vocal Fold *Pitch* WITH Lingual or Buccal *Frication* (mm. 1, 18)
- 44.a. Bilabial *Flutter* WITH Vocal Fold *Pitch* WITH Lingual or Buccal *Frication* (mm. 1)
- 44.b. Bilabial *Flutter* WITH Vocal Fold *Pitch* WITH Lingual *Trill* (mm. 35)
- 48 Salival *Frication* in Cheek WITH Tongue *Trill* (mm. 1-3, 5, 15-17 (16))
- 48.a. Salival *Frication* in Cheek WITH Tongue *Trill* WITH Vocal Fold *Pitch* (mm. 2, 4-5)
- 51 *Whistle* (Bilabial Or Lingua-Dental) WITH Vocal Fold *Pitch* (mm. 3-4, 22, 32-34 (34), 37-48)
- 54 Vocal Fold *Pitch* WITH Lingual or Buccal *Flutter* (mm. 18-23, 23-24, 35, 37-48)
- 54.a. Vocal Fold *Pitch* WITH Lingual or Buccal *Frication* (mm. 1, 21-25)
- 54.b. Vocal Fold *Pitch* WITH Lingual *Trill* (mm. 1, 26-29)

- 55 Pharyngeal *Frication* WITH Lingual or Buccal *Frication* (mm. 28-30 (30))
- 55.a Pharyngeal *Frication* WITH Lingual or Buccal *Frication* WITH Vocal Fold *Pitch* (mm. 9, 31-32, 34-36)
- 57 Salival *Frication* WITH Vocal Fold *Pitch* (Nasal) WITH Uvular *Trill* (mm. 15)

The text generally follows IPA pronunciation: The symbols /ʁ/ = a voiced uvular fricative; /G/ = voiced uvular plosive; /g/ = voiced velar plosive

NOTATION – basics

 <p>(cheek)</p>	 <p>(buccal) #22</p>	<p>Saliva <i>frications</i> either in cheek (left and right) or buccal placement (c4 and c5) with a specific pushing gesture</p>	 <p>buzz flutter</p>	<p>L C R</p>	<p>Lip <i>buzz</i> notated on center line (as lip buzz seems to be mostly produced medially - however, if lip buzz is produced off-center, that is ok); lip <i>flutter</i> is identified as right, center or left as indicated</p>
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 <p>W (no voice)</p>	<p>Whistles may be produced either A) bilabial (lips), or B) linguadental/palatal (tongue on teeth or roof of mouth).</p>		<p>Mouth shape and degree of openness, including a closed aperture</p>		<p>A rapid opening of the velo-pharyngeal port (doorway to nasal cavity). The tone is nasal and the rapid opening and closing of the port will articulate a selected reinforced harmonic - strive for the maximum resonance to bring out a strong overtone</p>
 <p>W #21</p>	<p>Whistles may feature specific pitches or follow a general contour.</p>				

	<p>Glottal stops placed upon an already sustained tone, ad lib</p>		<p>The tongue may produce a front, mid or back tongue trill, or; it may produce a frication at the location indicated, or a flutter at the location identified</p>		<p>Frications may be produced in the pharynx from high to low</p>		<p>In addition to trills, flutters and stops, this piece will also use slight frications of a nearly sibilant quality and open, vowel-like filters</p>
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	<p>Bidental stops work better with a microphone</p>		<p>Uvular tremolo - hard to identify differences of speed or pressure - so any uvular sound is acceptable</p>		<p>Oscillation of place - if nasal filter is used, then probably we will have an oscillation of reinforced harmonics</p>		<p>A tongue flutter (here using front tongue) may be combined with a tongue frication</p>
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NOTATION – multiphonics

	<p>6. Buccal Salival Frication WITH Dental Stops</p>		<p>11. Pharyngeal Frication WITH Bilabial or Lingua-Dental Whistle</p>		<p>12. Uvular Tremolo WITH Vocal Fold Pitch (nasal)</p>		<p>15. Bilabial Flutter WITH Tongue Flutter</p>
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	<p>15.a. Bilabial Flutter WITH Tongue Flutter WITH Vocal Fold Pitch</p>		<p>16. Pharyngeal Frication WITH Vocal Fold Pitch</p>		<p>18. Oral Cavity Frication WITH Bilabial Or Lingua-Dental Whistle</p>		<p>18.a. Oral Cavity Frication WITH Bilabial Or Lingua-Dental Whistle WITH Vocal Fold Pitch</p>
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	<p>19. Vocal Fold Pitch WITH Articulated Velo-Pharyngeal Port Valving</p>		<p>21. Buccal Salival Frication WITH Tongue Trill</p>		<p>21.a. Buccal Salival Frication WITH Tongue Trill WITH Vocal Fold Pitch</p>		<p>22. Buccal Salival Frication WITH Lingua-Alveolar Frication</p>
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	<p>22.a. Buccal Salival Frication WITH Front Tongue Trill WITH Lingua-Alveolar Frication</p>		<p>24. Glottal Pulses UPON Vocal Fold Pitch WITH Bilabial Trills</p>		<p>36. Bilabial Buzz WITH Pharyngeal Frication</p>		<p>36.a. Bilabial Flutter WITH Pharyngeal Frication</p>
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	<p>37. Bilabial Buzz WITH Pharyngeal Frication WITH Vocal Fold Pitch</p>		<p>37.a. Bilabial Buzz WITH Vocal Fold Pitch</p>		<p>37.b. Bilabial Flutter WITH Vocal Fold Pitch</p>		<p>44. Bilabial Buzz WITH Vocal Fold Pitch WITH Lingual or Buccal Frication 44.a. Bilabial Flutter WITH Vocal Fold Pitch WITH Lingual or Buccal Frication</p>
	<p>44.b. Bilabial Flutter WITH Vocal Fold Pitch WITH Lingual Trill</p>		<p>48. Salival Frication in Cheek WITH Tongue Trill</p>		<p>48.a. Salival Frication in Cheek WITH Tongue Trill WITH Vocal Fold Pitch</p>		<p>51. Whistle (Bilabial Or Lingual-Dental) WITH Vocal Fold Pitch</p>
	<p>54.a. Vocal Fold Pitch WITH Lingual or Buccal Frication 54.b. Vocal Fold Pitch WITH Lingual Trill</p>		<p>55. Pharyngeal Frication WITH Lingual or Buccal Frication</p>		<p>55.a. Pharyngeal Frication WITH Lingual or Buccal Frication WITH Vocal Fold Pitch</p>		<p>57. Salival Frication WITH Vocal Fold Pitch (Nasal) WITH Uvular Trill</p>

Initial version completed: 2014\_03\_03; Inking and revisions completed: 2016\_11\_04

For more information: <https://michaelwardedgerton.wordpress.com>

# abaGa baKatur

♩ = 66 rit. ----- ♩ = 40

accel. ----- ♩ = 72

♩ = 66

The score consists of four staves of musical notation, each with specific performance instructions:

- Staff 1 (Top):** Features a treble clef and a key signature of one sharp (F#). It includes notes, rests, and dynamic markings such as *mf* and *ff*. Annotations include *#54.b*, *#48 (Cheek)*, *#44 (Lip)*, *#44.a*, *#15.a*, *W #51*, *lips*, and *#16*. A large circle with an arrow pointing right is labeled *lips*.
- Staff 2:** Features a bass clef and a key signature of one sharp. It includes notes, rests, and dynamic markings. Annotations include *Tongue fr B*, *(buccal)*, *fric*, *fluter*, *ba*, *(tongue root)*, *#48*, *(Cheek)*, *#48.a*, *(#48)*, and *(#48.a)*.
- Staff 3:** Features a treble clef and a key signature of one sharp. It includes notes, rests, and dynamic markings. Annotations include *(buccal)*, *#22*, *(no voice)*, *fric*, *x1*, *x2*, *x3*, *x4*, *E3*, and *E1*.
- Staff 4 (Bottom):** Features a bass clef and a key signature of one sharp. It includes notes, rests, and dynamic markings. Annotations include *(buccal space)*, *#22.a*, *(buccal)*, *#22.a*, *(no voice)*, *lips*, *#16*, *ford*, *to ----- nasal*, *fric*, *x1*, *x2*, *x3*, *x4*, and *x1*.

Additional annotations include *(trill + friction)* at the bottom left and *(quick glottal stops)* above the final staff.





$\text{♩} = 46$

$\text{♩} = 40$

accel. -----  $\text{♩} = 70$

(as loud as possible) (#6) (buccal) #36 lip buzz (any pitch) #36.a. flutter

(Dental) (Tongue) (any) stops fric

#22 (buccal) ct

#54

ba - - - ba - - - tar

a - - ba - - Ga

(#54) Ga - - ba - - tar

(Tongue) flutter

(as loud as possible) (#6) Buccal (no voice) #15 (voice) flutter

(Dental) Tongue slight frication/sibilant e<sup>6</sup> fric

(#24) fric B

L R #15 flutter

(#54.a) (Tongue) trill

open c<sup>2</sup> c<sup>2</sup> v c<sup>1</sup> d<sup>1</sup> e<sup>1</sup> v c<sup>1</sup> b<sup>1</sup>

open fric

open fric

a<sup>1</sup> b<sup>1</sup> c<sup>4</sup> D<sup>5</sup>

open fric

con moto

rall.  $\text{♩} = 46$

$\text{♩} = 36$

$\text{♩} = 46$

Handwritten musical score for voice and piano, featuring vocal lines and piano accompaniment with detailed performance instructions.

**Vocal Lines:**

- Staff 1 (Soprano):** Includes notes with slurs and accents. Performance notes include "ba", "a", "fa(r)", "ra", and "free".
- Staff 2 (Alto):** Includes notes with slurs and accents. Performance notes include "no vib.", "a", "ba", "ga", "ba", "ba", "tur", and "lip buzz".
- Staff 3 (Tenor):** Includes notes with slurs and accents. Performance notes include "Lips (#15)", "nasal", "ba - ba", "tur", "ba", and "Ga".
- Staff 4 (Bass):** Includes notes with slurs and accents. Performance notes include "No vibrato", "ba", "ba", "tur", "Ga", "Ga - Ga - Ga Ga - Ga", "ba - a - tar", and "E1 E3 C3 B1".

**Piano Accompaniment:**

- Staff 5 (Right Hand):** Features chords and melodic lines. Performance notes include "Trill", "Fric", "X1 X2 X3 X4 X5", and "X4 X3 X2 X1".
- Staff 6 (Left Hand):** Features chords and bass lines. Performance notes include "Fric", "X1 X2 X3 X4 X5", and "X4 X3 X2 X1".

**Performance Instructions:**

- Tempo/Style:** "con moto", "rall.", "no vibrato", "mf", "f".
- Articulation:** "ba", "a", "ga", "ba", "ba", "tur", "Ga", "ba - a - tar".
- Phrasing:** Slurs and accents throughout the vocal lines.
- Technical Notes:** "Lips (#15)", "nasal", "lip buzz", "Trill", "Fric", "X1 X2 X3 X4 X5", "X4 X3 X2 X1", "E1 E3 C3 B1".







- 1-3. ♩ = 72
- 4. = 80
- 5. = 72
- 6. = 70
- 7. = 66
- 8. = 60
- 9. = 46
- 10. = 36

Handwritten musical score for voice and instruments, featuring four staves and a vocal line with lyrics.

**Staff 1 (Vocal):** Includes circled number 44, notes for lip and nasal articulation, and lyrics: ta(r) ra ra a ba ga i/ u.

**Staff 2 (Instrumental):** Labeled LDL (#51), includes notes for lip and nasal articulation, and lyrics: a ta(r) ra a ba ga i/ u.

**Staff 3 (Instrumental):** Labeled (#54), includes notes for tongue and nasal articulation, and lyrics: ta(r) ra a ba ga i/ u.

**Staff 4 (Instrumental):** Labeled lip, includes notes for buzz and flutter, and lyrics: ta(r) ra a ba ga a i/ u.

**Staff 5 (Vocal):** Includes notes for nasal articulation and lyrics: i/ u.

**Annotations:** Includes terms like "lip", "nasal", "LDL", "BLBL", "flutter", "buzz", and circled numbers (#44), (#51), (#54), (#37.b).

2014\_05\_05 Kuala Lumpur  
 2016\_11\_04 Planning (inking + revisions completed)

# Michael Edward Edgerton Published Music

## BABELSCORES®

<http://www.babelscores.com/>

- #86\_\_2 Sonata, for alto flute (2011-12)
- #85.a\_Ari(rang), for soprano sax (2010)
- #84\_The Garden of Risk, for sinfonietta (2012)
- #80\_Keltainen huone, for choir (2008)
- #77\_\_A Marriage of Shadows, for flute (a.fl), Alto (tenor) sax, percussion, gtr, voice (2008)
- #74\_illusions, for e.hn, cl, bn, hn, tpt, tbn, pno, vla (2006)
- #70\_\_1 sonata, for piano (2004)
- #66\_Sangītaśiromani, for 7 strings (vln & vla) (2002)
- #65\_Tractatus I, for solo oboe (2002)
- #64\_String Quartet #1, for string quartet (2002)
- #62\_Anaphora, for solo voice (2001)
- #58\_Kalevi Matus, for choir (2000)
- #56\_le Critérien, for woodwind quartet (fl, ob, cl, bsn) (2000/2008)
- #55\_Mamre, for violin (2000)
- #54\_Friedrich's Comma, for two voices (1999)
- #39\_\_A Holy Person Falls into the Nile as a Pelican, for clarinet and horn (1997)
- #35\_\_Apposte Messe, for air-driven organ (1996)
- #23\_XHAIN, for piano duo (1995/2008)
- #22\_Regret of a Noiseless Sundering, for saxophone quartet (1995)

## componistenwerk

<http://www.componistenwerk.nl/>

- #80.b\_\_Yellow Room, version B (Keltainen huone) (2008, rev 2016)

## C. Alan Publications

<http://www.c-alanpublications.com/>

- 1995\_#25\_Songs of Vent (6'00), instrumentation: multi-percussion solo

## Conners Publications — CP Press Publications

<http://www.music-usa.org/conners/index.php4>

- 1998\_#49\_KOSMOS, volume two on reinforced harmonics, for one to four voices
- 1998\_#48\_KOSMOS, volume one on articulation, for one to four voices
- 1998\_#46\_Azure Suite (4'30) for soprano and overtone singer
- 1998\_#45\_Taffy Twisters (6'05) for voice and percussion
- 1998\_#43\_Sirens (8'21) for four to forty voices
- 1997\_#41\_Lingua-Palatal #1 (3'28), for two voices
- 1995\_#27\_Mountain Songs (4'01), for solo voice

## PRB Productions

<http://www.prbmusic.com/>

- 2008\_#78\_Balkan dance (5'11) for 4 blockflöte (tenor, bass F, grossbass C, Subbass F)

## Tuba-Euphonium Press

<http://www.cimarronmusic.com/filter/manufacture--tuba-euphonium-press/>

- 1987\_#5\_Ai (12'03) for trumpet, trombone, tuba

## Uetz Music

<http://www.uetz.de/music.html>

- 1988\_#9\_Unspoken Crime (12'49) for violin, cello and piano

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