

WAVES »

Concerto for solo cello, trumpet
obligato, string orchestra and
computer (Ambisonics)

By Martin Schlumpf ----- 2002



Waves

----- concerto for solo cello, trumpet obligato, string orchestra and computer (Ambisonics), composed between January and May 2002 on a commission from Expo.02 (Swiss Regional Exhibition).

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for solo cello, trumpet obligato, string orchestra and computer (Ambisonics)

----- 2002

----- Waves is dedicated to Matthias Müller, Howard Griffiths und Thomas Demenga

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Waves

Remarks

- *All the instruments sound as written (in C). Double basses transpose an octave lower, even in harmonics.*
- *All accidentals apply for the entire bar, but only in the octave indicated.*
- *The trumpet, which functions as a secondary soloist, must be placed behind the audience in the auditorium, facing the concert stage.*
- *The computer music was created by the composer in his private studio in Würenlingen. It is played back with precise spatial modulation using the Ambisonics procedure developed at the Institute for Computer Music and Sound Technology (ICST) at Zurich University of the Arts. In other words, the sounds are precisely distributed in a sound-space around the audience. For concert performances, it is necessary to have either a multi-channel audio version decoded to the actual number of speakers, or a so-called "B format" that can be played on a special player.
The minimum equipment required for the piece includes a computer, an audio interface (with at least six outputs for four audio signals and two click tracks), a console, and at least four loudspeakers placed around the audience at regular intervals. (A more sophisticated sonic distribution is possible if more loudspeakers are used.)*
- *Boxed measure numbers in the score indicate passages defined in the computer as markers for individual starting points..*
- *The complete electronics part is shown in the score using Midi staves in the bottom section of the page. The abbreviated names refer to the sound generators employed (Roland XP-50, E-MU Proteus 2000, Korg 01R/W, Unity-Sampler DS-1 2.1.3. Retro AS-1 2.1.2, and Absynth 1.2.3).*
- *The precise temporal coordination of the live and electronic levels is guaranteed by a click track (an acoustical metronome) that the conductor hears via headphones or clip. The clicks begin at m. 11 and last to the end of the piece, though they need not be used to conduct the solo cadenza (mm. 53-56).*
- *The trumpet has its own click track for most of its part. The track appears in the following passages: m. 56 beat 1 to m. 86 beat 10; m. 152 beat 1 to m. 168 beat 5; m. 179 beat 5 to m. 188 beat 1 (the 5/8 meter is always divided 3+2); and m. 213 beat 1 to the end of the piece.*
- *From mm. 53 to 56 the solo cello has a 75-second opportunity to display his or her improvising skills in a solo cadenza.*
- *Separate instrumental parts and prerecorded electronic material can be obtained from tgmusic or the composer.*



Martin Schlumpf

1947 Born in Aarau (Switzerland), on December 3.

1968-73 Studies music in Zurich: clarinet (Hansjürg Leuthold), piano (Warren Thew und Evelyne Dubourg), conducting (Ferdinand Leitner), theory and composition (Rudolf Kelterborn).

1974 Further composition studies with Boris Blacher in Berlin.

1977- Professor of music theory at Zurich University of the Arts.

1991- Teaches group improvisation at Zurich University of the Arts..



Until 1980 Mainly active as a composer of contemporary art music, winning many awards, incl. first prizes at Zurich Competition (1972, 1979) and Tonhalle Competition (1975).

1980- Returns to improvised music, first as a bass player in «Trio 80» (with Urs Blöchlinger) and from 1982 as saxophonist and bass clarinetist in own groups (especially «BERMUDA VIERECK») and many other projects.

1987- Member of Aargau Saxophone Quartet as soprano saxophonist.

1990s- Widely active in borderlands between improvisation and composition, with increasing emphasis on composing in a new «postmodern» style and a strong interest in complex polymetrical structures (research project on Conlon Nancarrow's studies) combined with increased compositional use of the computer.

Catalogue of compositions (selection):

«Evocations» for brass, piano and percussion (1972); «5 Stücke for large orchestra» (1973); «Fragment» for chamber orchestra with obligato violin (1974-75); «String Quartet 1975»; «Todesfuge» for speaking chorus (1976); «Tenebrae» for solo voices, mixed chorus, brass, harpsichord and string quintet (1976-77); «Stratifications» for solo trumpet, obligato piano and orchestra (1977/78); «Jeux» for 3 clarinets (1979); «Ostinato I and II» for 3 improvising musicians and orchestra (1980/82); «Onyx» for alto saxophone and cello (1985); «Winterkreis» for saxophone quartet (1991); «Sommerbogen» for guitar quartet (1992); «December Rains» for solo piano (1992-93); «... as time goes by ...» for piano and percussion quartet (1993); «Mouvements» for piano and orchestra (1994); «Spring» for percussion quartet (1995); «...aufflattern mit ...» for 4 women's voices (1995); «Clarinet Trio» (1997); «Rattaplasma 2» for clarinet and computer (2001); «Blue» for saxophone quartet (2003); «The Wounded Bluesplayer» for horn and resonating piano (2004); «Atemspuren» for bass clarinet and accordion (2005); «pulsar_1» for 4 instruments and computer (2006-07); «Summer Circle» for string quartet (2007); «pulsar_2» for voice, flute, piano and computer (2009); «Streams», double concerto for clarinet, bass trombone and 17 instruments (2010).

Sound recordings (with own compositions):

- Schweizer Musik des 20. Jahrhunderts (HUG, HC 9111) with «String Quartet 1975»
- Martin Schlumpf: Swiss Fusion 84 - Live (Unit records, utr 4009), 1984
- Noblesse galvanisée (Plainisphere, PL 1267-20/21) with Martin Schlumpf's BERMUDA VIERECK, 1985
- Martin Schlumpf's BERMUDA VIERECK (Unit records, utr 4038), 1990
- Cumuli (Unit records, utr 4049) with Martin Schlumpf's BERMUDA VIERECK, 1992
- Winterkreis (SOT 47-12) with Aargau Saxophone Quartet, 1992
- Swiss Percussion Ensemble + Christoph Baumann (Unit records, utr 4089), 1995, with «...as time goes by...»
- Vier Jahreszeiten (MGB, Musikszene Schweiz, CD 6129), 1996 with «Winterkreis», «Spring», «Sommerbogen» and «... aufflattern mit ...»
- Die Kunst des Tempokanons, C. Nancarrow - M. Schlumpf (artist.cd 8103 2), 2004
- Timegrid_01 (tgmusic 47.101), 2008 with ZWEIZEIT: A. Frey and M. Schlumpf
- pulsar_1 (ZHdK Records 15/09), 2009 with «pulsar_1», «Atemspuren» and «Rattaplasma 2»

Waves

Concerto for solo cello, trumpet obligato, string orchestra and electronics

by Martin Schlumpf (2002)

$\bullet = 65$

1 (The trumpet sounds as written!)

Trumpet in B \flat

Solo Cello

Violin I 4-6

Violin II 1.

Viola 1.

Viola 1/2

Cello 1.

Cello 1/2

Double Bass 1

Double Bass 2

$\frac{5}{4}$ 3+2 $\frac{4}{4}$ $\frac{3}{4}$

mf *fpp* *poco* *mf* *mf*

molto espr. *f* *fpp* *f* *p* *poco f* *molto f*

p (1)

c.s. *molto p* *mf*

c.s. *molto p* *mf*

2. c.s. *molto p* *mf*

c.s. *molto p* *mf*

2. c.s. *molto p* *mf*

p

pizz. *mp*

4

Tpt. *f* *poco f*

S.Vc. *Glissando* *flautando* *mf* (II) (IV)

$\frac{5}{4}$ 3+2 rit. $\frac{4}{4}$ a tempo

Vln. I 1. *pizz.* *arco* *poco f* *15^{ma}* *p*

Vln. I 1-3 *2./3.* *pizz.* *arco* *poco f* *15^{ma}* *p*

Vln. I 4-6 *(15^{ma})*

Vln. II 1. *p* *Glissando*

Vln. II 4-6 *15^{ma}* *4.* *p* (1)

Vla. 1. *p* *poco* *Glissando* *via sord.*

Vla. 1/2 *ord.* *poco* *Glissando* *via sord.*

Vc. 1. *ord.* *p* *poco* *Glissando*

Vc. 1/2 *p* *poco* *Glissando*

D.B. 1

7

con eleganza

S.Vc. *poco f* *f* *poco f*

$\frac{5}{4}$ $3+2$ $\frac{4}{4}$

Vln. I *mp* *mf*

Vln. I 1. *(15^{ma})* *fff*

Vln. I 1-3 *(15^{ma})* *fff*

Vln. I 4-6 *(15^{ma})* *fff*

Vln. II 1-3 *p*

Vln. II 4-6 *(15^{ma})* *+ 5*

Vla. 1/2 *s.s. pizz.* *f*

Vla. 3/4 *s.s. pizz.* *f*

Vc. 1/2 *pizz. div.* *f* *arco* *p*

Vc. 3/4 *pizz. div.* *f*

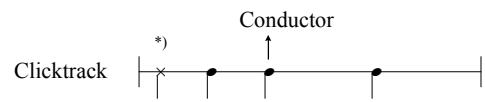
D.B. 1 *pizz.* *mp*

D.B. 2 *arco* *p*

T.11

9

Musical score for measures 9-11. The score includes parts for Tpt., S.Vc., Vln. I, Vln. II 1-3, Vln. II 4-6, Vla. 1/2, Vla. 3/4, Vc. 1/2, Vc. 3/4, D.B. 1, and D.B. 2. Measure 9 is in 4/4 time, and measure 11 is in 3/4 time. Dynamics include *mf*, *p*, and *poco f*. Performance instructions include "arco" and "c.s.".



*) Start the click track immediately after the downbeat. The conductor judges the tempo by the first two clicks and conducts the third click as the actual beat 2. The 4/4 meter of the click track should thus be regarded as merely "virtual."

12

Tpt. *p* *pp*

S.Vc. *espr.* *molto f* *f* *f* *mf* *s.p.* *sempre molto s.p.*

3/4 **4/4**

Vln. I 1-3 *mp*

Vln. I 4-6 *mp* *mf* *p*

Vln. II 1-3 *mp* *mf* *p*

Vln. II 4-6 *(15^{ma})* *+6*

Vla. 1/2

Vla. 3/4

Vc. 1/2 *pp*

Vc. 3/4 *arco* *pp*

D. B. 2.

Cltr.

15 *nervoso*

S.Vc. *poco f* *cresc. poco a poco*

3/4 **5/4 3+2**

Vln. I 1-3 *poco f* *p* *fp*

Vln. I 4-6 *fp*

Vln. II 1-3 *fp*

Vln. II 4-6

Vla. 1/2 *fp*

Vla. 3/4 *fp*

Vc. 1/2 *< p* *fp*

Vc. 3/4 *< p* *fp*

D.B. 1 *arco* *p* *fp*

D.B. 2 *fp*

Cltr

MIDI 1 Afro.Darbuka (Unity) 5:3

MIDI 2 Afro.Tambora (Unity) 5:3

MIDI 3 Afric Agogo (Unity) 5:3

MIDI 4 Cabasa (Unity) 5:3

MIDI 5 Ethno Pipes1 (XP) *5* *15^{ma}*

MIDI 6 Saintly (XP) *5*

MIDI 7 Chinese Gong (Unity) *5* *8^{vb}*

S.Vc. *molto f*

6/8

all strings: molto secco e ritmico

Vln. I 1-3 *ffp fp f p mf f*

Vln. I 4-6 *ffp fp f p mf f*

Vln. II 1-3 *ffp fp f p mf f* non div.

Vln. II 4-6 *ffp fp f p mf f* non div.

Vla. 1/2 *ffp fp f p mf f*

Vla. 3/4 *ffp fp f p mf f*

Vc. 1/2 *ffp fp f p mf f* non div.

Vc. 3/4 *ffp fp f p mf f* non div.

D.B. 1 *ffp fp f p mf f* pizz.

D.B. 2 *ffp fp f p mf f* pizz.

Ctr

MIDI 1

MIDI 2

MIDI 3

MIDI 4 Bata (Unity)

MIDI 5 *(15^{ma})* Hiten Bells (XP) *10:8*

MIDI 6 *(8^{va})*

MIDI 8 Thumb Chimes (XP)+Cym-Bell3 (Absynth)

S.Vc. *f* *mf* **5** 2+3

Vln. I *p* *mf* *f* *p* *f* *p*

Vln. II *p* *mf* *f* *p* *f* *p*

Vla. *p* *mf* *f* *p* *f* *p*

Vc. *p* *mf* *f* *p* *f* *p*

D.B. 1 *p* *mf* *f* *p* *f* *p*

D.B. 2 *p* *mf* *f* *p* *f* *p*

Cltr

MIDI 1

MIDI 2

MIDI 3 Congal (Unity)

MIDI 4

MIDI 5 (15^{ma}) 10:8 10:8

MIDI 6 Tsuzumi2 (Unity) 4:3 4:3

MIDI 7

MIDI 8 Shaker (Unity)

28

S.Vc. *mf* *cresc. poco a poco*

3/4 **5/8 2+3** **6/8**

Vln. I *mf* *f* *p* *f* *p* *mf*

Vln. II *mf* *f* *p* *f* *p* *mf*

Vla. *mf* *f* *p* *f* *p* *mf*

Vc. *mf* *f* *p* *f* *p* *mf*

D.B. 1 *mf* *f* *p* *f* *p* *mf*

D. B. 2 *mf* *f* *p* *f* *p* *mf*

Cltr

MIDI 3

MIDI 4

MIDI 5 *(15^{ma})* 10:8 10:8

MIDI 6 4:3 4:3 4:3

MIDI 8

T.33

Musical score for T.33, featuring multiple instruments and MIDI tracks. The score is divided into measures 31, 32, and 33.

Instrumentation:

- S.Vc. (Solo Violoncello)
- Vln. I (Violin I)
- Vln. II (Violin II)
- Vla. (Viola)
- Vc. (Violoncello)
- D.B. 1 (Double Bass 1)
- D.B. 2 (Double Bass 2)
- Cltr. (Clarinet)
- MIDI 3, 4, 5, 6, 8, 9

Key Performance Indicators (KPIs):

- Tempo/Style:** *molto f* (measures 31-32), *ff* (measure 33)
- Dynamic Range:** *f* (forte), *p* (piano), *mf* (mezzo-forte)
- Articulation:** *8^{va}* (octave up), *8^{va}* (octave up), *15^{ma}* (15th harmonic), *10:8* (10:8 ratio), *4:3* (4:3 ratio)
- Effects:** +Harmonic Chord (Absynth)
- Other:** Thumb Chimes (XP)

Measure 31: S.Vc. plays a melodic line with triplets. Vln. I, Vln. II, Vla., and Vc. play chords with triplets. D.B. 1 and D.B. 2 play chords with triplets. Cltr. plays a rhythmic pattern. MIDI 3, 4, 5, 6, 8, and 9 play chords with triplets.

Measure 32: S.Vc. continues the melodic line. Vln. I, Vln. II, Vla., and Vc. play chords with triplets. D.B. 1 and D.B. 2 play chords with triplets. Cltr. plays a rhythmic pattern. MIDI 3, 4, 5, 6, 8, and 9 play chords with triplets.

Measure 33: S.Vc. plays a melodic line with triplets. Vln. I, Vln. II, Vla., and Vc. play chords with triplets. D.B. 1 and D.B. 2 play chords with triplets. Cltr. plays a rhythmic pattern. MIDI 3, 4, 5, 6, 8, and 9 play chords with triplets.