

TIMESTRETCH

Andrew Hugill

*Commissioned to celebrate the opening of the Leicester Space Centre.
Funds made available by De Montfort Hall and the Leicester Space Centre.*

First Performance: Philharmonia Orchestra/Constantine,
in De Montfort Hall grounds as part of **dmh uncovered** 2001.

ORCHESTRA

Piccolo
2 Flutes
2 Oboes
2 Clarinets (Bb)
Bass Clarinet
Contrabass Clarinet
2 Bassoons
Contrabassoon

4 French Horns (F)
2 Trumpets (Bb)
2 Tenor Trombones
2 Bass Trombones
Tuba

Timpani

Percussion 1: snare drum, tambourine, tam-tam, crash cymbals, suspended cymbal, bass drum
Percussion 2: bass drum, field drum, vibra-slap, ratchet (or fishing reel),
Percussion 3: chain, field drum, tubular bells, xylophone,
Percussion 4: gong (F), bass drum, flexatone, chains, glockenspiel

Digital sound:

Violin I
Violin II
Viola
Cello
Double Bass

Diffusion notes:

Section A-E: aim for spaciousness. Some reverb on the brass and bring forward the strings/flutes.
Section E-O: aim for an antiphonal effect. Woodwind and Brass should be panned hard left and hard right by number.
Section O to end: aim for shifting textures.

Lighting notes:

Section A-E: the dawn of time (?). Light emerging from darkness.
Section E-O: medieval austerity. Perhaps play with the left/right alternation.
Section O to end: rich colours. 'Space-age' spectrum...

PROGRAMME NOTES

On January 1st, 2001 NASA's Cassini spacecraft, flying past Jupiter, detected waves in the thin gas of charged particles that fills the space between the Sun and its planets. The waves are in low radio frequencies, which were converted to sound waves to make the patterns audible. 'Timestretch' combines these sounds with orchestral material, inspired by the idea that, in outer space, time can be distorted.

The piece begins with the Cassini sounds, leading into an imagined pre-Christian melody, partly inspired by the sound of the Celtic hunting-horn: the carnyx. In the second section, the Cassini sounds are 'timestretched' 1000 times, using a digital fragmentation technique called 'brassage'. This provides a drone from which emerges a stretched version of the earlier melody, but rhythmically decorated in the style of an 11th/12th Century 'organum'. A final section blends the orchestra and Cassini sounds, timestretched 2000 times using 'granulation', to create a complex texture as the musical style switches to the 21st Century.

'Timestretch' lasts approximately 8 minutes.

Timestretch

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The score is divided into two 10-second sections. The first section starts with a tempo of 96. The instruments and their parts are as follows:

- Piccolo:** Rests in the first section, then plays a melodic line in the second section with dynamics *mp* and *f*, including a *bend* instruction.
- Flute 1 & 2:** Similar to Piccolo, with *mp* and *f* dynamics and *bend* instructions.
- Bass Clarinet & Contrabass Clarinet:** Play a melodic line in the second section with dynamics *mf* and *fff*.
- Contrabassoon:** Plays a melodic line in the second section with dynamics *fff* and *mf*.
- Horn in F 1-4, Trumpet in Bb 1-2, Trombone 1-2, Bass Trombone 1-2, Tuba:** All have *mf* dynamics and instructions to "breathe through instrument" and "do not synchronise with other players". Horns and trumpets continue breaths *ad lib.*
- Percussion 1 & 2:** Snare Drum (snares off) and Bass Drum play a rhythmic pattern in the second section with dynamics *p* and *ff*.
- Digital sound:** Labeled "Cassini sounds (untreated)", it starts with *ppp* and *mf* dynamics, then goes to *a niente*.
- Desk 1-8:** Violins I and II, and other desks, play melodic lines with dynamics *mp* and *f*, including *bend* and *bend pitch* instructions. Some desks have *pizz* (pizzicato) and *8va sempre* (8va off fingerboard) instructions.

Additional performance instructions include "occasional noises behind bridge: continue *ad lib.*" and "players do not synchronise" for the string desks.

B

This musical score page, labeled 'B', contains the following parts and markings:

- Woodwinds:**
 - Pic.** (Piccolo): Part 8, includes trills and bends.
 - Fl.** (Flutes): Flute 1 and Flute 2, includes trills and bends.
 - B.Cl.** (Bass Clarinet): Part 8, includes a melodic line with dynamics from *mp* to *fff*.
 - Ch.Cl.** (Contrabass Clarinet): Part 8, includes a melodic line with dynamics from *mp* to *fff*.
 - C. Bn.** (C Bassoon): Part 8, includes a melodic line with dynamics from *f* to *fff*.
- Brass:**
 - Hn.** (Horns): Horns 1-4, playing rhythmic patterns.
 - Bb Tpt.** (Bass Trombone): Trombone 1 and Trombone 2, includes a melodic line with dynamics from *f* to *mp*.
 - B. Tbn.** (Baritone Trombone): Trombone 1 and Trombone 2, includes a melodic line with dynamics from *mp* to *mf*.
 - Tbn.** (Tuba): Part 8, includes a melodic line with dynamics from *mp* to *fff*.
- Percussion:**
 - Perc 1** and **Perc 2**: Playing rhythmic patterns with dynamics from *ff* to *mf*.
 - Digi. snd.** (Digital Sounds): Part 8, playing rhythmic patterns.
- Strings:**
 - Desk 1-8**: Violins and Violas, includes melodic lines with dynamics from *f* to *mf*.

Key performance markings include: *f*, *mp*, *mf*, *ff*, *fff*, *p*, *norm.*, *bend*, *flz.*, *wide vib.*, *(ssia: octave up!)*, *harmonic gliss*, and *bend pitch*. A large blue watermark 'Preview File Only' is overlaid diagonally across the score.