Instruments:

1 Flute
1 Alto Flute (G)

2 Oboes

2 Clarinets (B-flat)
1 Bass Clarinet (B-flat)

2 Bassoons

4 Horns (F)
2 Trumpets (B-flat)
2 Trombones

4 Percussion Players

Violins (minimum 12)
Violas (minimum 5)
Cellos (minimum 4)
Double Basses (minimum 3)

Layout:

SMALL GROUP

1 Alto Flute

1 Bass Clarinet

1 Trumpet (needs straight, velvet, harmon and wah-wah mutes)

1 Violin
(needs metal practice mute)

1 Cello
(needs metal practice mute)

Electronics
(only simple indication in the score)

ORCHESTRA

1 Flute
2 Oboes
2 Clarinets
2 Bassoons

4 Horns
1 Trumpet
(needs straight and harmon mutes)
2 Trombones
(both need straight and harmon mutes)

4 Percussion Players

Violins I (minimum 6)
Violins II (minimum 5)
Violas (minimum 5)
Cellos (minimum 3)
Double Bass (minimum 3)

Percussion

Percussion I – 2 players - (needs a bow)

Timpani (21", 23", 25", 28", 38")
1 Roto Tom (6")
2 Small Suspended Cymbals
10 Gongs (need 2 more Gongs for
            Percussion II part, see bellow)

Crotales   *(sounds 2 octaves higher)*

Vibraphone (I)

Percussion II – 2 players - (needs a bow)

1 Bass Drum
4 Large Suspended Cymbals
1 Sizzle Cymbal
5 Wood Blocks
Tubular Bells

5 Tom Toms
1 Snare Drum
Vibraphone (II)
Almglocken

2 Gongs

2 Bongos

7 Plate Bells

All cymbals and crotales must be able to play arco (with bows).

Commissioned by Radio France / IRCAM with IRCAM computer music realization by Manuel Poletti

First Performance: Orchestre Philharmonique de Radio France conducted by
Reinbert de Leeuw, 9th June 2007, Agora Festival, Salle Olivier Messiaen, Paris.
Ircam computer music designer: Manuel Poletti
Ircam sound engineer: David Poissonnier

The score is in C

The "Small group" and "Orchestra" are both amplified. The dynamic balance should be made by the mixer/sound designer (especially in the middle section where the violin and cello in the "small group", using metal practice mutes, play against the orchestra).

Accidentals (including grace notes) last for the duration of the bar in which they are written and only affect the pitch of the note to which they directly refer, not other octaves.

All grace notes must be played BEFORE the beat.

All the grace notes must be played as fast (rapid) as possible.
sfzp - type gestures must be played with rapid dynamic contrast.
Exaggerate the dynamics, and also "espressivo" markings must be played with extra sweetness.

To conductor:

▼ = Cue for electronics

To Strings, Wood Winds & Brass:

= trem. (for strings), fluttertongue (for winds/brass) unless otherwise stated.

To Strings:
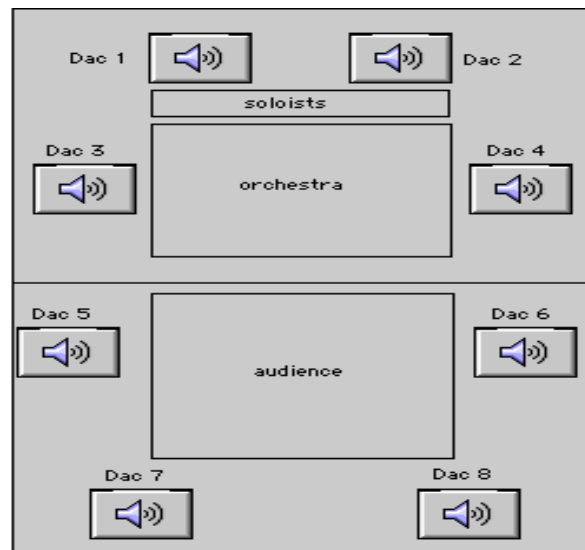P.O. = Position Ordinary
S.P. = Sul Pont.

Electronics: Please see the attached DVD
(Includes documentations + MAX/MSP patch)
Computer music designer : Manuel Poletti - email : <manuel.poletti@ircam.fr>
Sound ingeneer : David Poissonnier - email : <david.poissonnier@ircam.fr>

Map on stage + positions of speakers (soloists = small group)

Programme Note

I have been writing music using contrasting materials, lines, textures, energetic rhythms, for a long time. For this piece I want all these contrasts to have their genesis in a single piece of musical material. For this piece, which is for electronics and orchestra, I was inspired a lot by software called "CataRT", developed at IRCAM. It is a very new piece of software.
The CataRT software system facilitates the creation of music by rearranging snippets of pre-recorded sound. These snippets are arranged in different interfaces through which one navigates and finds material paced according to its sonic character. For instance one can navigate for similarities of pitch, loudness, brilliance etc... This allows one to explore a large corpus of sounds interactively, and by composing this path, to create novel harmonic, melodic and timbral structures.

Whilst writing I saw the image of fish or birds, maybe even insects, "swarming". In the orchestral part, the textural sounding parts are written using a slow lyrical counterpoint, which I chop into smaller pieces by using accents. This mirrors the granulations in the electronics and, as these granulations are written for acoustic instruments, each behave differently according to the tempo of the lines.

I've always wanted to be a fish. I imagined that in this piece, sometimes you see big fish which are made out of a shoal of smaller fish. Often these leave the water and start flying. I also imagined the water in which they were swimming, freezing suddenly, then cracking into lumps of ice which float up into the air. Now the fish, which are still flying, are gamboling around the ice cubes. Here I see the reflections of the light on the bodies of those fish!

Towards the end, I use another program which was developed by Manuel Poletti. This takes the musical mateiral of a pre-defined two bar section of the orchestral tutti, and then redistributes it. In one section you can hear this acting as a brass group against strings, whilst the orchestra plays fragments of lyrical counterpoint. Here my intention was to play with the standard effect of orchestral tutti surrounded by an electronic soundworld (often fragmented and scattered texture), and create exactly the opposite.

Dai Fujikura (edited by Harry Ross)

CataRT is developed in Ircam's Real-Time Music Interaction team (IMTR) by Diemo Schwarz and is partially funded by the French RIAM research project Sample Orchestrator.

swarming essence (2007, revised 07/01/2008)
for orchestra and electronics

Dai Fujikura