

Electronic and mixed music at Casa Ricordi

"All of the pieces I have written that have implied electronics have to be revised constantly because of the change of technology. [...] every other year, the whole system changes. And I see around me all composers running, literally running after new technology that's going to be better in a few years. [...] if you write a piece for electronics, you're constantly forced to renew the system to make it still available for the concert hall. [...] Technology forces me to go back, and work over again. A new tape. Changing from a tape to computer. And then from computer to a new type of computer. Or from one synthesizer to a new type. And it's endless."

David Bündler, "Interview with Gerard Grisey", *20th-Century Music* 3 (1996),
<<http://www.angelfire.com/music2/davidbundler/grisey.html>>

Preservation, restoration and edition of the works with tape by Luigi Nono

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Document preservation

“The preservative approach considers all the information presented in the document as an artifact. It aims to preserve the documentary unity. The process of re-mediation here uses the new digital medium to represent, immediately and fully transparently, the information and material characteristics of the original document as it came to us.”

Documentary edition

“The documentary approach focuses on the form of each document, on the interplay of relationships in its sound fabric and, in the case of several witnesses of the same work, between the documents themselves, on the production equipment and techniques, the compositional practice and the authorial bases. The documentary approach aims to create accurate editions accompanied by a review of the sources.”

Angelo Orcalli, “Recorded music: from the ethics of preservation to the critical editing”, in Orcalli and Cossettini, *Sounds, Voices and Codes from the Twentieth Century*, Udine, DILL - University of Udine, 2017, p. 39. <http://mirage.uniud.it/sites/default/files/Sounds_voices_and_codes.pdf>

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Documentary editions / restorations

Y entonces comprendió

La fabbrica illuminata

Omaggio a Emilio Vedova

Musica-Manifesto n. 1:

Un volto, del mare – Non consumiamo Marx

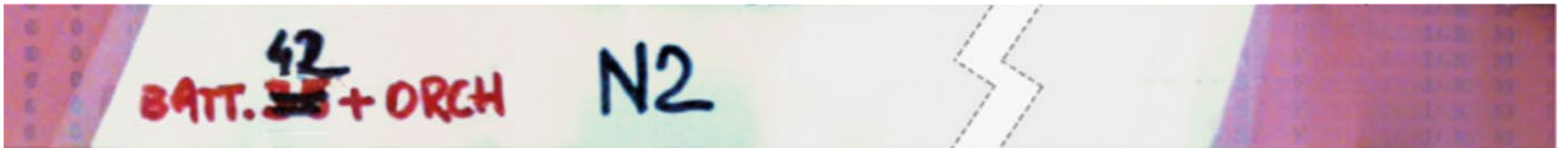
Como una ola de fuerza y luz

Al gran sole carico d'amore

Preservation, restoration and edition of the works with tape by Luigi Nono

Al gran sole carico d'amore

- Two scores, of which the most recent and published refers to the 1978 version, the other [...] contains traces of the first version and of the revision work which would then lead to the second
- two different and authoritative versions of the tapes
- a video of the 1978 staging
- a set of preparatory materials from the Luigi Nono Archive in Venice



Cfr. Luca Cossetini, "Al gran sole carico d'amore thirty years on", in Orcalli and Cossetini, *Sounds, Voices and Codes from the Twentieth Century*, Udine, DILL - University of Udine, 2017, pp. 349-368. <http://mirage.uniud.it/sites/default/files/Sounds_voices_and_codes.pdf>

Gérard Grisey

Le temps et l'écume

- *Jour, Contre-jour* (1979), for electric organ, 13 musicians and 4-track magnetic tape
- *Les chants de l'amour* (1982-84), for 12 mixed voices and 4-track magnetic tape with computer generated sounds
- *Le Temps et l'écume* (1989), for four percussionists, two synthesizers and chamber orchestra

Gérard Grisey

Le temps et l'écume

2 Flûtes (1°: Fl.en do, Fl. picc. ord. et Fl. picc. accordée un quart de ton plus bas, Fl. en sol)
(2°: Fl.en do, Fl. picc., Fl. en sol)

2 Hautbois (1° et 2° aussi cor anglais)

2 Clarinettes

(1°: Cl. Sib, Cl. La et Cl. Mib accordées un quart de ton plus bas) *

(2°: Cl. Sib, Cl. La et Cl. Mib)

1 Clarinette contrebasse en Sib (aussi Cl. basse en Sib)

2 Bassons (2° aussi Contrebasson)

2 Trompettes (1°: Trp. en Do, Trp. en sib accordée un quart de ton plus bas)
(2°: Trp. en Do, Trp. en sib)

2 Cors en Fa

2 Trombones

4 Percussions

2 Synthétiseurs Yamaha** (deux exécutants et deux assistants)

4 Violons

2 Altos

2 Violoncelles

2 Contrebasses (2° Cb. à cinq cordes)

La partition est notée en sons réels, sauf pour les synthétiseurs dont les différentes transpositions sont indiquées avec les registrations.

* Si les parties de Cl. Mib sont exécutées sur la Cl. Sib, prévoir une Cl. Sib supplémentaire accordée $\frac{1}{4}$ ton plus bas pour le premier clarinetiste.

** Deux versions sont disponibles: 1°) DX 7 ou DX 7 II, 2°) SY 77 ou SY 99

Ne pas mélanger SY et DX à cause de la différence de timbre.

Les cartouches ou disquettes contenant les différents timbres sont disponibles avec le matériel.

Gérard Grisey

Le temps et l'écume

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G rard Grisey

Le temps et l' cume

Preservation of the patches

- Midi dump
- Transcription of the parameters: DX7 and SY →

1: FORMHARM 1												Yamaha DX7: bank1 a												
On/Off	1	Car	<input checked="" type="checkbox"/>	2	Mod	<input checked="" type="checkbox"/>	3	Car	<input checked="" type="checkbox"/>	4	Mod	<input checked="" type="checkbox"/>	5	Car	<input checked="" type="checkbox"/>	6	Mod	<input checked="" type="checkbox"/>						
EGRate	25	40	71	46	18	22	19	13	56	41	33	46	99	6	42	6	31	22	21	46	25	12	9	2
EGLev	99	99	99	0	98	76	91	99	99	99	99	1	99	99	99	0	99	99	99	0	89	99	89	0
Scaling	0	A-1	0	0	A-1	0	0	A-1	0	0	A-1	0	0	A-1	0	0	A-1	0	0	A-1	0	0	A-1	0
Curve	-Lin	-Lin			-Lin	-Lin			-Lin	-Lin			-Lin	-Lin			-Lin	-Lin			-Lin	-Lin		
Output Level	88	Vel	RSc	AM	91	Vel	RSc	AM	99	Vel	RSc	AM	95	Vel	RSc	AM	99	Vel	RSc	AM	82	Vel	RSc	AM
Freq	M	Coar	Fine	Det	M	Coar	Fine	Det	M	Coar	Fine	Det	M	Coar	Fine	Det	M	Coar	Fine	Det	M	Coar	Fine	Det
	f	1.0	00	0	r	1.	00	0	f	41.	69	0	r	.	50	0	r	1.	01	0	r	1.	00	-5
Pitch Rate	99	99	99	99	Range	Vel	RSc	LFO	Wave	Spd	Del	PMD	AMD	PMS	Sync	Mode								
EG	Lev	50	50	50	50	-	-	-	W	84	0	6	67	3	On	-								
Algorithm	5	Pitch Envelope																						
		99																					
		75																					
		50	[---]-----																					
		25																					
Key TP	C1																							
Feedback	6																							
Key Syno	Off	0																					

o EG	▪ MODE	ATTACK	ATTACK
	▪ R1	12	14
	▪ R2	9	16
	▪ R3	0	0
	▪ R4	31	0
	▪ RR	19	27
	▪ L2	63	63
	▪ L3	62	63
	▪ RS	+2	+0
o OUTPUT			
	▪ BP1		
	• NOTE	C-2	C1
	• OFFSET	+0	+0
	▪ BP2		
	• NOTE	G0	G2
	• OFFSET	+0	+0
	▪ BP3		
	• NOTE	C6	C6
	• OFFSET	+0	+0
	▪ BP4		
	• NOTE	G7	G7
	• OFFSET	-34	-34
o SENSITIVITY			
	▪ VELOCITY SENS	+2	+2
	▪ RATE VEL SWITCH	OFF	OFF
	▪ AMP MODE SENS	+0	+0
	▪ PITCH MODE SENS	0	3
o LFO			
	▪ WAVE	SINE	SINE
	▪ SPEED	0	0
	▪ DELAY	0	0
	▪ A MOD DEPTH	0	0
	▪ M MOD DEPTH	0	0
	▪ F MOD DEPTH	0	0
	▪ INIT PHASE	0	0

Gérard Grisey

Le temps et l'écume

Strategies for a new edition

- Sampling the sounds produced by the synthesizers?

DX7 part

⑦ $\text{♩} = 80$

malgré les p, mp ou f!

ad libitum irrégulier entre 40 et 23

DATA ENTRY

MOD. WHEEL

ppp *p*

- Emulation of the original hardware:
 - SY: closed architecture, emulation not available
 - DX7: Dexed, FM8, Arturia, etc.


Salvatore Sciarrino

Perseo e Andromeda

- Andromeda: soprano
- Il drago: mezzosoprano or tenor
- Perseo: barytone and bass (2 singers for one character)
- Synthesis sounds in real time (at least 2 performers)

Salvatore Sciarrino

Perseo e Andromeda

- Andromeda: soprano
- Il drago: mezzosoprano or tenor
- Perseo: barytone and bass (2 singers for one character)
- Synthesis sounds in real time (at least 2 performers)  Music V generated sounds, played live with two workstations
 - Real-time synthesis with 4i system
 - Spatialization
 - Reverberation

```

NOT 2 11 0.1 75 3458.5 3500 1;
NOT 3 11 0.1 75 3458.5 3500 1;
NOT 4 11 0.1 75 3458.5 3500 1;
NOT 5 11 0.1 75 3458.5 3500 1;
NOT 6 11 0.1 75 3458.5 3500 1;
NOT 10 11 0.1 75 3458.5 3500 1;
NOT 19 11 0.1 75 3458.5 3500 1;
NOT 20 11 0.1 75 3458.5 3500 1;
NOT 22 11 0.1 75 3458.5 3500 1;
NOT 23 11 0.1 75 3458.5 3500 1;
COM CIOTOLO RIVERBERATO;
NOT 25 11 0.1 75 3458.5 3500 1;
COM *****;
COM OG1;
GEN 13 31 7 512 0,0 1,1 0,2.75;
GEN 13 31 8 512 0,0 0,1 -1,2.75;
GEN 13 31 9 512 50,0 450,1 0,2.75;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 13 1 2.75 60 440 25 50 450 7 8 9 0;
COM *****;
COM PAG.5;
COM *****;
COM OG1;
GEN 20.83 31 7 512 0,0 1,0.17 0,1.5;
GEN 20.83 31 8 512 0,0 0,0.17 1,1.5;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 20.83 1 1.5 50 440 -25 100 900 7 8 8 0;
TER 26;
COM *****;
COM OG2;
GEN 0 31 1 512 0,0 1,0.17 0,0.83;
GEN 0 31 2 512 0,0 0,0.17 1,0.83;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 0 1 0.83 60 415 25 500 -400 1 2 2 0;
TER 1;
COM *****;
COM OG3;
GEN 0.5 31 1 512 0,0 1,1.5 0.25,2.66 0,2.83;
GEN 0.5 31 2 512 0,0 0,1.5 1,2.66 1,2.83;
GEN 0.5 31 3 512 0,0 1,1.5 0,2.66 0,2.83;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 0.5 1 2.83 50 415 25 100 400 1 2 3 0;
COM *****;
COM CIOTOLO, CT7.PAR, 4.1.91;
COM *****;
NOT 0 11 0.1 75 3458.5 3500 1;
TER 0.1;
COM *****;
COM OG4;
GEN 0 31 1 512 0,0 1,1 0,3;
GEN 0 31 2 512 0,0 0,1 -1,3;
GEN 0 31 3 512 0,0 1,1 0,2 0,3;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 0 1 3 60 440 25 100 400 1 2 3 0;
COM *****;
COM OG5;
GEN 4.16 31 1 512 0,0 1,0.17 0,0.83;
GEN 4.16 31 2 512 0,0 0,0.17 1,0.83;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 4.16 1 0.83 60 415 25 100 400 1 2 2 0;
TER 5;
COM *****;

```

Workstation 2

```

COM OG6;
GEN 0.5 31 1 512 0,0 1,1.5 0,3.5;
GEN 0.5 31 2 512 0,0 0,1.5 1,3.5;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 0.5 1 3.5 60 415 25 100 900 1 1 2 0;
COM *****;
COM OG7;
GEN 7 31 1 512 0,0 1,1 0,5.75;
GEN 7 31 2 512 0,0 0,1 1,2.75 0,3 1,3.75 0,4 1,4.75 0,5 1,5.75;
GEN 7 31 3 512 50,0 450,1 0,2.75 0,4.75 950,5.75;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 7 1 5.75 65 415 25 50 950 1 2 3 0;
TER 13;
COM *****;
COM OG8;
GEN 0.25 31 1 512 0,0 1,1.75 0,5.75;
GEN 0.25 31 2 512 1,0 0,1.5 1,1.625 0,1.75 1,2.91 0,3.08
1,4.24 0,4.41 1,5.75;
GEN 0.25 31 3 512 0,0 0,1.75 450,3.08 0,4.24 0,5.75;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 0.25 1 5.75 55 415 25 50 450 1 2 3 0;
COM *****;
COM PAG.6;
COM *****;
COM CIOTOLI, CT8.PAR;
COM *****;
NOT 14 11 0.1 75 3458.5 3500 1;
NOT 15 11 0.1 75 3458.5 3500 1;
NOT 17 11 0.1 75 3458.5 3500 1;
NOT 19 11 0.1 75 3458.5 3500 1;
NOT 22 11 0.1 75 3458.5 3500 1;
NOT 25 11 0.1 75 3458.5 3500 1;
NOT 28 11 0.1 75 3458.5 3500 1;
COM *****;
COM OG1;
GEN 16.5 31 1 512 0,0 1,1.5 0,3.25; GEN 16.5 31 2 512 0,0 1,1.5
0,3.25;
GEN 16.5 31 3 512 0,0 0,1.5 950,3.25;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 16.5 1 3.25 50 415 25 50 950 1 2 3 0;
TER 29;
COM *****;
COM OG2;
GEN 0 31 1 512 0,0 1,5 0.25,5.66 0,5.83;
GEN 0 31 2 512 0,0 0,5 -1,5.66 -1,5.83;
GEN 0 31 3 512 50,0 50,4.34 450,5 0,5.66 0,5.83;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 0 1 5.83 55 440 25 50 450 1 2 3 0;
COM *****;
COM OG3;
GEN 8.16 31 1 512 0,0 1,0.17 0.25,0.83 0,1;
GEN 8.16 31 2 512 1,0 1,0.17 0,0.67 1,0.727 0,0.784 0,1;
GEN 8.16 31 3 512 1,0 1,0.17 0,0.784 0,1;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 8.16 1 1 50 415 25 50 150 1 2 3 0;
COM *****;
COM OG4;
GEN 9.49 31 2 512 1,0 1,0.17 0,0.83 0,1;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 9.49 1 1 50 415 25 200 -150 1 2 3 0;
COM *****;
COM CIOTOLI, CT9.PAR;

```

Workstation 2

Salvatore Sciarrino

Perseo e Andromeda

Andromeda

Rizzon- te

Ma- re

ma- re

Sempre

og3

og4

og5

og6

og7

(f) ciotoli ct9.par

```

COM *****
COM OG7;
GEN 0 31 1 512 0,0 1,1 0,3;
GEN 0 31 2 512 0,0 0,1 1,3;
COM ----- A -- F -- DF -- Q -- DQ -- ;
NOT 0 1 3 60 440 -25 100 400 1 2 2 0;
COM *****

```

Salvatore Sciarrino

Perseo e Andromeda

Strategies for a new edition

- Music V generated sounds: original audio files already existing
- Real-time synthesis with 4i system:
 - Migration of the code in Max environment
 - Sampling
- Revision of the score adding references to the electronic events.

"It is desirable that the interaction between subjects and realities linked to the world of creation and dissemination of electronic and mixed music will increase, and that therefore the publishing system, the scientific community (historical-critical investigation and theoretical reflection) and the world of research and production centers for electroacoustic music will establish an ongoing dialogue and collaboration."

Marco Mazzolini, "Musica elettronica e scrittura: appunti di un editore", *Musica/Tecnologia*, 13 (2019), p. 33.