

Gino Marinuzzi Jr:
*Electronics and Early Multimedia Mentality in Italy*¹

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In this essay I propose to consider the complex convergences between electronic music and media practices in Rome in the 1950s and 1960s, by reconstructing the experience of an almost forgotten figure, composer Gino Marinuzzi Jr (1920-96). One of the reasons that led me to deal with Marinuzzi is the fact that his engagement with technology as a structuring device of compositional processes is paramount, and brings to the fore crucial issues of 'applied' music's problematic reputation in the Italian cultural debate. In reviewing Marinuzzi's biography over the period 1949-75 – which covers the overall time-span of his activity as a composer –, my goal is to exemplify the key phases of this transitional period in Italian music history, in which technology, through the growth of media and their increasing importance in cultural representations, came to constitute a new value of musical activity and at the same time renewed old aesthetic questions concerning the autonomy of music.

1. The invisible musician

Two authoritative assessments, written at a distance of 17 years, historically frame Marinuzzi's work and reputation among Italian musicologists and critics. During the

¹ This essay was developed as a part of my postdoctoral fellowship at the Dipartimento di Beni culturali e ambientali, Università di Milano, which is co-financed by the «Dote ricerca»: FSE, Regione Lombardia. The following abbreviations for archives and collections are used throughout this essay: GMC (Gino Marinuzzi's private home collection, Rome); FMN (Fondo Marinuzzi at Nomus, Milan); ASFM (Archive of the Studio di Fonologia della Rai, Museo degli Strumenti Musicali, Castello Sforzesco, Milan); FFC (Fondo Filippo Crivelli, Biblioteca del Dipartimento di Beni culturali e ambientali, University of Milan). I am grateful to the following people: Marinuzzi's daughters Anna Maria and Giovanna along with Liana Santarone, Gino's widow; Filippo Crivelli, Guido Guerrasio, Andrea Padova, Federico Savina, Giuliano Strini and late Roman Vlad for having shared their memories with me; Maddalena Novati for her constant support. Parts of this essay update and correct information concerning the Fonosynth's chronology, contained in M. Corbella, *Paolo Ketoff e le radici cinematografiche della musica elettronica romana*, «AAA • TAC», 6, 2009, pp. 65-75.

XII Festival Internazionale di Musica Contemporanea in Venice, 1949, where the composer presented his *Piccolo concerto* for violin and orchestra (1947), sharing the programme with Samuel Barber's *Second Essay for Orchestra*, op. 17 (1942), Massimo Mila noted:

More interesting [than Barber's composition] is *Piccolo concerto* for violin and orchestra by Gino Marinuzzi junior, skillfully interpreted by [Aldo] Ferraresi. Various currents of contemporary music converge in it, from neoclassicism to atonality, and convey a rather fragmentary eclecticism to the work, albeit supported by honest intentions. Marinuzzi certainly still has a long way to go before he is able to define a completely personal voice, but in all likelihood he will succeed².

The second statement is by Renato Di Benedetto, who wrote the concert notes for the stage reprise of Marinuzzi's radio work *La signora Paulatim* (1965):

[...] it never comes across as *music*, that is, as an autonomous organism, but simply as sound effect. This explains the eclectic, chameleonic nonchalance with which it passes from the most complicated procedures of serial technique to the sensual language of Straussian chromaticism, from the use of electronic instruments to the most blatant and melodramatic 'diminished sevenths'. It neither determines nor characterises, but is instead determined from the situation on the scene [...]. It is music, in sum, in which the musician has disappeared, from which he deliberately keeps his own personality at a distance³.

The two pieces of criticism are united by the appreciation of Marinuzzi's compositional skills, but also by a certain concern for his eclecticism, which (they fear) might be detrimental to a full definition of his personal aesthetics. Basing our judgement on these statements alone, we might mistakenly assume that Marinuzzi's music simply did not change much over 17 years. Or we could infer that the composer's research followed a path that did not meet the paradigms and expectations of contemporary musicology. For Mila and Di Benedetto, the fact that music could not stand autonomously and convey listeners as to the composer's world view was a defect that needed to be corrected, a deviance that needed to be fixed; I would argue instead, that for

² «Più interessante il *Piccolo concerto* per violino e orchestra di Gino Marinuzzi junior, eseguito con bravura dal Ferraresi; vi confluiscono diverse correnti della musica contemporanea, dal neoclassicismo alla atonalità, che conferiscono al lavoro un aspetto di eclettismo un po' frammentario, ma che sono sorrette da una convinzione sincera. Certamente a Marinuzzi resta da percorrere molto cammino per raggiungere un linguaggio interamente personale, ma è probabile che vi arriverà» (M. Mila, *Al Festival Musicale di Venezia: Vivo successo di Hindemith e Milhaud*, «L'Unità», 8 settembre 1949, p. 3). All translations are mine unless otherwise specified.

³ «[...] non suona mai come *musica*, ossia come organismo autonomo, ma semplicemente come effetto sonoro. Si spiega così la versipelle, camaleontica disinvoltura con cui passa dai più complicati procedimenti della tecnica seriale ai linguaggi sensuali del cromatismo straussiano, dall'impiego degli strumenti elettronici a quello della più plateale e melodrammatica 'settima diminuita'. Essa non determina né caratterizza, ma è invece determinata dalla situazione scenica [...]. Una musica insomma dove il musicista non compare, dalla quale anzi si preoccupa di tenere deliberatamente in disparte la propria persona» (R. Di Benedetto, *La signora Paulatim di Gino Marinuzzi Jr*; concert notes, in *IX Autunno Musicale Napoletano*, Napoli 1966, FFC).

Marinuzzi and several other composers of his generation, who were simultaneously engaged in theatre, radio, film and television activities and did not produce a solid corpus of autonomous works, the dominant paradigm of musical autonomy was no longer imperative, although it continued to exert its lure, expressing its own ideological objectives and, sometimes, even a haunting obsession.

In dealing with media on a daily basis, these composers grew to become 'specialists' – to use Sergio Miceli's term – and had to come to terms with the «levelling of hierarchies» and allow «syncretism, stylistic mix and quotation technique [...] as well as the employment of concrete and electronic music and the increasingly decisive contribution of reproduced music»⁴. This did not happen for all of them in the same way nor at the same time, and one could even go as far as to affirm that for several composers born in the 1920s, this led to them being removed from official historiography, despite their relevant contributions in shaping music technologies and, most of all, the sound of a modern Italian mediascape over the seminal quarter century (1950-75) in which a new media system was constructed in Italy on the ashes of Fascism. In other words, these 'invisible' composers were early and largely unknowing vehicles of what Nicholas Cook has recently defined as a «multimedia mentality», in opposition to the «autonomy mentality» of academic musicology⁵. Cook refers to present-day musical multimedia, while in the 1950s and 1960s in Italy, the rising role of media induced a traumatic fracture between composers' professional activities and their sociocultural (self-)representations, which most often than not could not be mended within their lifetime, still dominated by the autonomy paradigm as regards both the cultural intelligentsia and musical education.

This is the reason for which I will avoid portraying Marinuzzi's biography as a coherent and unitary experience, but rather present it as a multi-layered compound of events, which eventually led him to retire from the public scene to dedicate himself to teaching. Reconstructing these events offers the advantage of being able to touch upon various aspects of the relationship between composition and technology, and also provides an alternative perspective on the history of Italian electronic music.

2. *A 'composer for the media': a tentative portrait of Marinuzzi*

When I first became interested in Marinuzzi around 2008, he had already long been relegated almost exclusively to oral history. With the exception of one monographic article⁶, his name was only cursorily mentioned in histories of electronic music, linked

⁴ S. Miceli, *Film Music: History, Aesthetic-Analysis, Typologies*, edited and translated by M. Alunno and B. Sheldrick, Ricordi and Libreria Musicale Italiana, Milano and Lucca 2013, p. 254.

⁵ N. Cook, *Beyond Music: Mashup, Multimedia Mentality, and Intellectual Property*, in J. Richardson, C. Gorbman and C. Vernallis (eds.), *The Oxford Handbook of New Audiovisual Aesthetics*, Oxford University Press, Oxford 2013, pp. 53-76.

⁶ L. Zaccone, *Gino Marinuzzi Jr. e l'elettronica nella Roma del dopoguerra*, «Musica/Realtà», 26, 78, 2005, pp. 105-132. This article draws on a section of its author's dissertation, which he kindly made available to me: Id., *L'esperienza elettroacustica di Domenico Guaccero*, Tesi di Laurea, Università di Roma-

to the Fonosynth – an electronic device he invented and which will be one of the focal objects of this essay – and was barely mentioned in historical overviews of the Roman music avant-garde. Film buffs would recall him as the author of the electronic music for the cult ‘B-movie’ *Terrore nello spazio* (*Planet of the Vampires*, M. Bava 1965), whose soundtrack was recently reissued⁷. Although new researches on the Roman electronic music scene have shed new light on his figure in the last five years⁸, the present essay is the first attempt to provide a comprehensive overview of Marinuzzi’s artistic career.

Even though he was fully immersed in Rome’s electronic music scene, Marinuzzi cannot be considered as an exponent of the avant-garde, whose poetics and militant battles he never embraced. Nor was he a traditional ‘concert’ composer, since his catalogue only counts about a dozen published classic-symphonic works. Finally, he cannot readily be ranked even among the representatives of popular music, a label he would not have applied to himself⁹, although he was a lover of jazz, authored songs for refined theatrical singers such as Laura Betti¹⁰, and made several arrangements of American and Italian popular music for radio formats¹¹.

If any label could be attached to him, it would have to be ‘composer for the media’ and it is this very definition that I propose to examine. Marinuzzi’s musical multiform engagement with cinema, radio and television involved a variety of aspects that went beyond composing. As an exemplary anecdote, we learn from a letter that in 1970 that

Tor Vergata 2005.

⁷ *Terrore nello Spazio/Planet of the Vampires: Orchestral score and electronic sound effects by Gino Marinuzzi Jr*, CD, Cinevox CDDM007 2003.

⁸ The following studies dedicate unprecedented attention to Marinuzzi, along with the rediscovery of Marinuzzi’s lifelong friend and early collaborator Paolo Ketoff (1921-96), sound technician and inventor: M. Corbella, *Musica elettroacustica e cinema in Italia negli anni Sessanta*, Ph.D. dissertation, Università degli Studi di Milano 2010; L. Pizzaleo, *Musica elettroacustica a Roma: gli anni Sessanta*, Edizioni Accademiche Italiane, Saarbrücken 2014. As for the Fonosynth, see M. Corbella, *Fonosynth*, in *The Grove Dictionary of Musical Instruments*, *Grove Music Online* (forthcoming); L. Pizzaleo, *Il liutaio elettronico: Paolo Ketoff e l’invenzione del Synket*, Aracne Editrice, Roma 2014 (Immota harmonia, 20), pp. 31-38.

⁹ Folk singer-songwriter Gio’ (Giovanna) Marinuzzi, one of Gino’s two daughters, described to me her father’s initial detachment from her first experiences at the Folkstudio in Rome in the early 1970s. Only gradually would he come to appreciate her musical career (personal communication [06/12]).

¹⁰ Laura Betti performed a few songs composed by Marinuzzi, namely *La scrittrice di fumetti*, with lyrics by Siro Angeli, on the radio programme *Almanacco d’occasione* (see «Radiocorriere», 37, 49, 4-10 dicembre 1960, pp. 3, 37), *La generosa* (lyrics by Alberto Arbasino) and *Mi butto*, with lyrics by Alberto Moravia (featured in *Laura Betti – Paolo Poli*, LP, Carosello LC4001-2 1964). The two latter songs were part of Betti’s theatre show *Giro a vuoto*, directed by Filippo Crivelli and invited by Mario Labroca at the XXIII Festival Internazionale di Musica Contemporanea, Venice, on 3 and 5 October 1960 <<http://www.archivistoricolafenice.org/ArcFenice/ShowFile.ashx?fileType=Show&cid=41959>> (10/14). Miranda Martino performed the song *Sole freddo*, featured in the film *Vento del sud* (E. Provenza 1959). The «teleromanzo» *Jekyll* (G. Albertazzi 1969) featured the song *Questa cosa che chiamiamo mondo*, with lyrics by Giorgio Albertazzi. The song *I Lost a World*, performed by Lara Saint Paul (aka Silvana Savorelli), is included in the LP *Servizio dall’Oriente*, Edizioni Musicali Gemelli, GG 10-006 1971, reissued on CD by Cometa Edizioni Musicali in 2012.

¹¹ Marinuzzi collaborated on various radio formats that were aimed at ‘elevating’ popular music through orchestral arrangements, such as *Fantasia della domenica* (1959) and *Arcidiapason* (1960).

he was appointed to assist technicians in the live radio broadcasting of the Orchestra Sinfonica di Roma della RAI from the auditorium at the Foro Italico. After the widely received event on March 17, where Leonard Bernstein conducted *Fidelio* (and 11.000 people stood in line for the 800 seats of the auditorium!)¹², Marinuzzi resigned from his position with a vehement letter to the heads of the company, supporting his dissatisfaction with technical explanations that reveal his unusual knowledge of recording technologies, certainly acquired during his experience in cinema post-production: he complained about his lack of control in arranging the orchestra and the microphones in an optimal way for broadcasting and, most of all, he bemoaned that handling the mixing console was not included among his responsibilities:

I believe that it will not be possible to obtain truly satisfactory sound recordings until the controls of the mixer are completely handled by a *professional* musician, or in any case by someone able to aptly read any type of score and adapt the recording technique to the musical taste and style that is performed at that moment. The presence of a [musical] assistant does certainly not solve the problem, for this type of job demands a direct and prompt manual control, together with a sensibility and a wit that cannot be transmitted through an interposed person. Let us not forget that the mixer is an *instrument*; as passive as it may be, it is nonetheless determinant in maintaining the balance and the sound relations pursued by the interpreter¹³.

This conception of technology as an active instrument of musical delivery acquires further significance considering Marinuzzi's reputation of «musician-technician» that he had grown in the electronic community of Rome throughout the 1950s and 1960s, as acknowledged in an often-reported conversation between Domenico Guaccero and Marinuzzi in the radio-series *Musica ex machina*:

Guaccero: It seems to me that you represent this combination of musician and technician [...].

Marinuzzi: I must specify that I'm not a technician, because real technicians could resent such a claim. I'm an enthusiast, and electronics for me was, initially, no more than a hobby. Then, you know how it happens, when you become truly fond of certain problems, you end up learning something, especially after so many years¹⁴.

¹² L. Padellaro, *Bernstein dirige alla TV il Fidelio*, «Radiocorriere», 47, 15, 12-18 aprile 1970, pp. 109-110.

¹³ «io non credo che sia possibile ottenere delle riprese sonore veramente soddisfacenti finché i comandi del dosatore o mixer che dir si voglia non saranno completamente nelle mani di un musicista *professionista* e comunque in grado di leggere correntemente qualsiasi tipo di partitura e di adeguare la tecnica della ripresa al gusto ed allo stile di musica che in quel momento viene eseguita. La presenza di un assistente non risolve certo il problema, dato che questo tipo di lavoro richiede un controllo manuale diretto e immediato, oltre a una sensibilità e ad un gusto che non può essere trasmesso per interposta persona. Non si dimentichi che il mixer è uno *strumento*, passivo finché si vuole ma determinante ai fini del mantenimento di equilibri e rapporti sonori cercati dall'esecutore» (G. Marinuzzi, [typewritten letter to the heads of RAI], 30 March 1970, GMC; emphasis in the original).

¹⁴ «*Guaccero*: "In te mi pare che si realizza un po' questa combinazione di musicista e tecnico [...]"

Despite this modesty, Marinuzzi had become a point of reference for technical issues concerning electronics throughout the 1960s in Rome, and his research, which had led him to create the Fonosynth in 1963, was a catalyst for the scattered experience of the Roman electronic music scene. As Luigi Pizzaleo has aptly noted,

Roman composers seem to move within a network of a number of studios, diverse in vocation, size and technical resources, none of which can be compared to any of the major European realities (including Milan). Some of them are branches of film companies (such as Fonolux or Fono Roma), some gravitate around public institutions which are in no way intended for music production (such as the studio of the Istituto Superiore di Poste e Telecomunicazioni or the one that was activated by the end of the 1950s at the Discoteca di Stato), while others are hosted in institutions that are not interested in establishing any organic relation with them (such as the Centro Elettronico of the Accademia Filarmonica Romana)¹⁵.

During its lifetime (1963-ca. 1971), the Fonosynth became a resource for other composers, first rented for film post-production, then as part of the equipment of the Studio R7¹⁶. But even before the synthesizer was physically assembled, Marinuzzi promoted electronic music in Rome in the 1950s, as recalled by Luigi Pestalozza, whose account is not only precious for being one of the rare extensive memories of the pioneering atmosphere surrounding Marinuzzi's house, but also because it foregrounds the role of cinema in generating musical poetics:

[...] in the aftermaths of the war, we encountered the first minimal electronic facilities in Gino Marinuzzi Jr's home; he used them for his film soundtracks. Meanwhile, he was experimenting and opening up a new world for us. Obviously, electronic music was not invented in his studio, but, as for Italy, perhaps yes, perhaps it was born in Marinuzzi's house. I recall how he explained that cinema had pushed him towards the unknown media, to become a researcher. It was indeed film music – with its developing

Marinuzzi: "Prima di tutto devo precisare che io non sono un tecnico perché a questo punto i veri tecnici potrebbero risentirsi di un'affermazione di questo genere. Io sono un appassionato di queste cose, diciamo che l'elettronica è stata per me, inizialmente almeno, piuttosto un hobby, che altro? Naturalmente, sai come succede, che quando tu di certi problemi incominci ad appassionartene veramente a fondo, qualcosa, specialmente in tanti anni, qualcosa finisci per imparare [...]"» (*Club d'ascolto: Musica ex machina*, radio-series curated by D. Guaccero and P. Grossi, 23 March 1967; for a full transcription of the interview, see L. Zaccone, *Gino Marinuzzi Jr e l'elettronica*, cit., pp. 131-132).

¹⁵ «I compositori romani attivi nel campo della musica elettronica sembrano muoversi nel reticolo di una pluralità di studi diversificati per vocazione, estensione e radicamento, nessuno dei quali paragonabile ad alcuna delle grandi realtà europee (compresa quella milanese). Alcuni di essi sono aggregati ad aziende operanti nel settore del cinema (come la Fonolux o la Fono Roma), altri sono organizzati intorno ad enti pubblici il cui mandato istituzionale non è in nessun caso la produzione musicale (come lo Studio dell'Istituto Superiore di Poste e Telecomunicazioni o quello attivato alla fine degli anni Cinquanta del secolo scorso presso la Discoteca di Stato), altri ancora sono ospiti di istituzioni che non intendono stabilire con essi alcuna relazione organica (come il Centro Elettronico dell'Accademia Filarmonica Romana)» (L. Pizzaleo, *Musica elettroacustica a Roma*, cit., p. 4).

¹⁶ Ivi, pp. 65-84.

form or its development of a musical form – that put him in touch with technologies that were different from those traditionally attached to music¹⁷.

2.1. *The early years (1949-56)*

Marinuzzi was born in New York City in 1920 to Anna Sofia Amoroso and Gino Marinuzzi Senior, a famous Sicilian opera conductor and composer, who at that time was touring the United States and was later appointed musical director at the Chicago Opera Theater. After having begun with the violin, Gino Jr became a precociously talented pianist and started to compose at an early age (his first publically premiered composition, *Concertino* for piano, oboe, alto sax and orchestra, dates to 1936) whilst studying at the Conservatory of Milan, where he graduated in piano and composition in 1941-42 under Giulio Cesare Paribeni, Renzo Bossi and Enzo Calace. In 1943 he was deported to the Nazi concentration camp of Ludwigshafen and after he was liberated he composed in Milan his *Lagerlieder* for four hands piano (1944), a series of elaborations from Slavic, Gypsy, Ukrainian, and generally Eastern European folk tunes he had learnt from his fellow prisoners and annotated on makeshift materials during captivity.

His earliest documented involvement with cinema dates to 1949, when he scored the music for two documentaries¹⁸, while working as *maestro sostituto* at the Opera di Roma (1946-51). The fact that Enzo Masetti (1893-1961) invited him as the youngest of five composers to contribute to the chapter *Aspetti della musica nel film* of his influential volume *La musica nel film* (1950)¹⁹, shows that Marinuzzi had quickly earned a respectable reputation in the field. With his first score for a feature-length film, the Lux Film production *Romanzo d'amore* (Duilio Coletti 1950), Marinuzzi had in fact entered the circle of composers who were engaged by musicologist Guido Maggiorino Gatti in his project of renovation of 'author' film music. Masetti's proximity to Marinuzzi is attested by the evidence that he too was credited in Coletti's film for «musical adaptations». Masetti taught two parallel programmes in film music compo-

¹⁷ «le prime attrezzature elettroniche, minime, le abbiamo conosciute in questo dopoguerra nella casa di Gino Marinuzzi Jr, che se ne serviva per le sue colonne sonore. Intanto ricercava, ci scopriva un mondo, una ricerca. Naturalmente la musica elettronica non nasceva nel suo studio, ma quanto all'Italia, forse sì, forse è nata proprio in casa di Gino Marinuzzi Jr. Ricordo come spiegava che il cinema lo aveva spinto a quel mezzo sconosciuto, a diventare il ricercatore. A spingerlo, invece, era stata la musica da film la sua forma in sviluppo o lo sviluppo di una forma musicale a contatto con tecnologie diverse da quelle tradizionali della musica» (L. Pestalozza, s.t., in P.M. De Santi – D. Chiadini (a cura di), *Filmconcerto: Orchestra Sinfonica e Coro di Roma della Rai*, rassegna a cura di G. Gelmetti ed E. Morricone con la collaborazione di Rosella Nobilia, Roma: Rai Radiotelevisione Italiana, [1983], p. 14).

¹⁸ *La leggenda di Verona* (G. Guerrasio, 1949) and *Un millesimo di millimetro* (V. Sabel, L. Sinisgalli 1949). The fact that I have not retrieved evidence of earlier films does not exclude the possibility of earlier titles coming to light in the future.

¹⁹ E. Masetti (a cura di), *La musica nel film*, Bianco e Nero, Roma 1950 (Quaderni della Mostra Internazionale del Cinema di Venezia), pp. 30-48. The other composers contributing to the chapter were Nicola Costarelli (b. 1911), Giuseppe Rosati (1903-62), Vincenzo Tommasini (1878-1950) and Antonio Veretti (1900-78).

sition at the Santa Cecilia Conservatory (1943-60) and at the Centro Sperimentale di Cinematografia (1942-60)²⁰ and can be considered one of the first film music specialists in the Italian tradition. In introducing his collection of essays, he openly addresses experimentalism as an essential paradigm of film music: «[cinema offers] means of incomparable audacity, of bewildering originality: I refer to everything that can be done in the lab, in recording and mixing rooms»²¹. He goes on to describe techniques of reversing and layering sounds to create «mysterious and very striking effects»²², options of interpolating music and noise, echoing sound, and so forth. Masetti is very conscious that this prospect might sound «merely technical» but, he adds,

nothing prevents us from believing that a new leap in the aesthetical field is being prepared. Film music cannot be [...] forever discredited, [...] because it is a vital part of that lively phenomenon named cinema²³.

Masetti, who collaborated on several occasions with director Alessandro Blasetti, might even have had a role in paving the way for Marinuzzi's next engagement in the feature-length film *1860 (Gesuzza, the Garibaldian Wife)*, A. Blasetti 1951), a re-release of the homonymous film originally made by Blasetti in 1933 with a completely redubbed soundtrack.

Marinuzzi's contribution to Masetti's volume – which remains his only theoretical publication on film music – shows a first-hand familiarity with processes of film production and suggests that he was not a newcomer to the film industry. The composer begins his theoretical elaboration by comparing film music with programme music, in that both are «subordinated» to an external idea or dramaturgy:

If with *musica a programma* we mean a kind of sonic expression whose inspiration necessarily originates from an extra-musical artistic fact, and which aspires to illustrate and interpret that fact, film music commentary can undoubtedly be considered as such. [...] This character of 'subordination' is after all co-substantial to the very origins of cinema and perhaps appears more evident in the 'silent' period²⁴.

²⁰ E. Speranza, *Masetti, Enzo*, in *Dizionario Biografico degli Italiani*, Vol. 71, Treccani, Roma 2008, <[http://www.treccani.it/enciclopedia/enzo-masetti_\(Dizionario-Biografico\)/](http://www.treccani.it/enciclopedia/enzo-masetti_(Dizionario-Biografico)/)> (07/14).

²¹ «[...] il musicista si può valere di infiniti altri [mezzi], pressoché illimitati nelle loro possibilità future, mezzi di un'audacia incomparabile, di un'originalità sconcertante. Voglio alludere a tutto ciò che si può fare in laboratorio, che si può fare in sede di registrazione e di mixage» (E. Masetti, *Introduzione ai problemi della musica nel film*, in Id. [a cura di], *La musica nel film*, cit., pp. 7-29: 22-23).

²² «lo stranissimo e magico effetto di uno scivolare di suoni per tutta la gamma dall'alto al basso, in graduale rallentando fino a fermarsi» (Ivi, p. 23).

²³ «È vero, che da qualche tempo la musica cinematografica s'attarda in tentativi di risolvere dei problemi puramente tecnici, ma nulla ci autorizza a credere che non sia per preparare un nuovo balzo nel campo estetico» (Ivi, p. 8).

²⁴ «Se per *musica a programma* si vuole intendere quella espressione sonora la cui ispirazione trae necessariamente origine da un fatto artistico che all'arte dei suoni è estraneo e che tale fatto pretende illustrare ed interpretare, la musica di commento cinematografico può senz'altro essere considerate tale. [...] Tale carattere di 'subordinazione' è del resto connaturato alle origini medesime della cinematografia

Drawing on the practice of compiling music for silent films, he laments cinema's «power to transform into functional music, something that was conceived with completely different aims»²⁵. In line with traditional modernist complaints against cinema, Marinuzzi pinpoints what he considers the main reason for a wrong use of music in films, that is, the exaggerated indulgence on sync points:

the reign of *sincrono* is established: tyrant of composers, orchestra conductors and film editors, and delight of most producers and directors. The stopwatch climbs beyond sport arenas and rinks and, unsatisfied with obsessing tens of thousands of sport supporters, finds it opportune to upset poor musicians who approach film scoring. [...] Now, it is certain that music for film must maintain an illustrative character: I agree with the importance of some 'syncs' that have an actual dramatic meaning (including avoided syncs, sudden silences, etc.); I agree with the specific stylistic setting of each soundtrack, depending on the specific genre of the film. [...] What I firmly disagree with is subduing music to the silliest details, to those famous 'secondary syncs' which are not only meaningless, but generate a sense of annoyance in the spectators, who are obliged to listen, in the space of 30 seconds, to an orchestra producing passionate phrases abruptly interrupted by a villain's ambush, followed immediately by a coach leaving, a father crying, a fight, a landscape. [...] The composer has become something like a professional 'food taster', who picks at a little of everything and, eventually, eats nothing²⁶.

Despite this criticism, the author does not miss to highlight the «infinite expressive options»²⁷ afforded by the newly «discovered» cinematographic technique of film scoring, which opens up the opportunity of developing new experimental resources (a feature that was to become his personal trademark in the following years):

ed appare forse più evidente se riferito ai tempi del 'muto'» (G. Marinuzzi, *Aspetti della musica nel film*, cit., p. 35; emphasis in the original).

²⁵ «Si può [...] dire che il cinematografo ha avuto, ahimè, il potere di far divenire specificamente funzionale anche musica nata per tutt'altro scopo» (*Ibid.*).

²⁶ «si instaura il regno del 'sincrono' tiranno sovrano di compositori, direttori d'orchestra e montatori, e delizia della maggior parte dei produttori e registi: il cronometro scavalca stadi e piste e, non soddisfatto di avere ossessionato decine di migliaia di tifosi crede opportuno turbare i sonni al povero musicista che si accinge a commentare un film. [...] Ora è certo che la musica di un film essendo di carattere illustrativo tale carattere deve principalmente mantenere: d'accordo quindi sulla importanza di taluni 'sincroni' e cioè di quelli che hanno un effettivo significato drammatico (ivi compresi i sincroni per antitesi, i silenzi improvvisi, ecc.); d'accordo sulla particolare impostazione stilistica di ogni singolo commento relativamente al particolare genere del film che tale commento illustra. [...] Niente affatto d'accordo, invece sul totale asservimento della musica ai particolari più sciocchi, a quei famosi 'sincroni secondari' che non solo non servono a nulla ma generano un notevole senso di fastidio nello spettatore, obbligato, nello spazio di 30 secondi, ad ascoltare l'orchestra pronunziare frasi appassionate presto interrotte dal 'cattivo' in agguato, al quale segue immediatamente una carrozza che parte, degli starnuti, un padre che piange, una battaglia, un panorama, ecc. [...] il compositore si è trasformato per necessità in uno di quegli 'assaggiatori' di professione, che piluccano un po' di tutto e, in definitiva, non mangiano nulla» (Ivi, pp. 36-37).

²⁷ «Le possibilità espressive si estendono all'infinito» (Ivi, p. 36).

One should always bare in mind that music is essentially abstract as an art and thus it can evoke images and sensations, which intrude, by virtue of their very indeterminacy, into the domain of pure fantasy. In this view, the musical commentary must be completely freed from any stylistic bias and enabled to resort to any of the harmonic, instrumental and timbral means which our century has, at least potentially, endowed us with. [...] The artist has always recurred to the means of *his own time* [...]. Opera has always been conceived and realised upon such principle: we don't see why this principle shouldn't be valid especially in motion pictures, an extremely young form of art, which is undergoing a rapid evolution²⁸.

Marinuzzi expresses his wish for a «golden era»²⁹ in film music composition, in which his own younger generation manages to free itself from the formulaic habits of elderly composers and is finally able to elevate film music to the level of «the noblest musical expressions of our time»³⁰. In order to do so, he deems it necessary that younger musicians be given more opportunities by film producers and directors and, most of all, that they have «the time to cultivate a solid cinematographic technique as apprentices of those who master these skills already»³¹.

As is evident from the programmatic tone of this article, Marinuzzi committed himself from the very beginning to the technical specificity of film music and substantially embraced Masetti's propositions. At the same time, throughout his career he appeared to resist the concept of specialism, intended as a separation between 'absolute' and 'applied' composition, defining himself instead as a musician firmly rooted in the tradition of western art music. He postulated a change in the traditional figure of the composer, capable of encompassing new technical dimensions – an attitude that was tangentially touched in the above-mentioned conversation with Guaccero:

Guaccero: For the musicians who cope with counterpoints and instrumentations, with grand aesthetic issues, yours might appear as a new figure of the composer... well, maybe not so new, since Bach used to build and fix his own organs...

Marinuzzi: Indeed, it's not so new after all... let's say that it's a custom that was lost for some time³².

²⁸ «Bisognerebbe sempre tener presente che la musica è un'arte essenzialmente astratta e che quindi ad essa è concessa la evocazione di immagini, di sensazioni, che appunto in quanto non precisabili invadono con maggior prepotenza il regno della pura fantasia. Da questo punto di vista il commento musicale potrebbe essere un prezioso ausilio al risultato drammatico della pellicola: è però necessario che esso venga completamente liberato da ogni preconcetto di stile, che ad esso venga concesso di valersi di tutti i mezzi armonici, strumentali, timbrici di cui il nostro secolo lo ha, almeno potenzialmente, arricchito. [...] L'artista si è sempre valso dei mezzi *del suo tempo* anche quando ha voluto far rivivere immagini e situazioni di epoche lontanissime» (Ivi, pp. 37-38; emphasis in the original).

²⁹ «Noi pertanto auspichiamo l'avvento di un'epoca aurea per il musicista cinematografico» (Ivi, p. 38).

³⁰ «[...] solo allora la musica per film potrà finalmente affiancarsi alle più nobili espressioni musicali del nostro tempo» (Ivi, p. 39).

³¹ «Bisogna però dare ai giovani il tempo di formarsi una agguerrita tecnica cinematografica, e per far sì che ciò avvenga, bisogna che essi si affianchino subito a coloro che questa tecnica possiedono completamente» (*Ibid.*).

³² «*Guaccero*: «Questo per i musicisti che generalmente combattono con i contrappunti e le

A glimpse of Marinuzzi's approach to noise and sound manipulation can be retrieved from *Un millesimo di millimetro* (1949), a 9-minute industrial documentary realised by Virgilio Sabel and Leonardo Sinisgalli on a commission by Olivetti, Italy's leading company in the field of calculating machines and early computer technology³³. The documentary was Olivetti's first film production and won the «Premio internazionale per il cortometraggio» at the XI Mostra Internazionale d'Arte Cinematografica di Venezia, 1950. The emphasis on micro-measurement constituting the film's subject serves as an occasion for the filmmaker to dwell on the extensive use of techniques of macro-photography, which were experimental at the time³⁴. The prevalence of blow-ups and close-up shots makes this documentary akin to an abstract film, and this very similitude underpins the main rhetoric strategy of the work, that is, making the contents and the visual construction converge around a «technological paradigm» – a characteristic trend of Italian corporate cinema of the 1950s and 1960s³⁵. Although the soundtrack of this film is still quite basic, the exhibition of 'artificial' constructions of sound falls under a technological paradigm through three different configurations:

1. the production of 'bird' sounds (02:46-03:19), most likely via *concrète* techniques, anticipating the voice-over that describes mechanical birds of the 18th century;
2. the noise of rotary engines dubbing the steel industry machineries (03:51-04:36);
3. the manipulation of piano solo phrases resulting in a timbre akin to a music box, used to underscore the construction matrixes generating «thousands of equal pieces» (04:53-05:56) and the rotation of precision tools and the microscopic shots of molecules of matter, in what can be considered as the climax of the film (08:21-09:44).

These «daring» characteristics were promptly praised by composer Adone Zecchi, who lingered on the sort of *ballet mécanique* set up by music accompanying «mechanic contraptions»³⁶.

strumentazioni, con i grandi problemi di estetica, mi pare che questa è una figura nuova del compositore... cioè non tanto nuova, in quanto Bach si costruiva e si aggiustava i suoi organi...» *Marinuzzi*: «Appunto, non è poi una cosa del tutto insolita... diremo che se n'era persa un po' l'abitudine» (*Club d'ascolto: Musica ex machina*, cit.).

³³ The film is currently preserved at the Archivio Nazionale Cinema d'Impresa of Ivrea and is retrievable on the archive's official web-tv <<http://www.fondazioneesc.tv>> (11/14). The music is erroneously attributed to Goffredo Petrassi in N. Bondanese, *Musica e generi documentaristi in Italia tra gli anni Cinquanta e Sessanta*, in R. Giuliani (a cura di), *La musica nel cinema e nella televisione*, Guerini, Milano 2011, pp. 177-217: 190, 198.

³⁴ As Ilario Meandri and Paolo Biondo describe in their contribution to this issue, the electronic microscope was presented as a technological novelty at the Fiera Internazionale di Milano in 1946.

³⁵ See A. Cecchi, *A Music Semiotic Perspective on the Italian Industrial Cinema of the Economic Miracle: The Technology Paradigm and the Modes of Audiovisual Representation*, in A. Colturato (ed.), *Film Music: Practices, Theoretical and Methodological Perspectives: Studies around Cabiria Research Project*, Kaplan, Torino 2014, pp. 241-263.

³⁶ «Il film guadagna in interesse – considerata l'aridità della materia – dall'audace impostazione del suo [Marinuzzi's] commento. [...] Al posto di danzatrici in *tutù* o di apollinei danzatori dissessualizzati, aghi, cerniere, denti, ruote, sfere, ed altre mille diavolerie meccaniche si muovono e la musica dà ordine

One of Marinuzzi's most prestigious collaborations took place in 1952, when he worked with the elderly Jean Renoir for *Le Carrosse d'or* (*The Golden Coach*), an Italian-French co-production starring Anna Magnani, for which Marinuzzi carried out a double adaptation from Vivaldi's concertos and from musical themes of the *Commedia dell'Arte*. Fiction film scoring developed throughout the 1950s, although it was mostly in the documentary genre that Marinuzzi expressed his propensity for experimentation. Director Guido Guerrasio, who collaborated with the composer on about 60 documentary films, explained to me that Marinuzzi experimented in the style of *musique concrète* already in his early short documentaries on industrial subjects, such as *La valle del carburo* (1951) and *Miracoli della chimica* (1951)³⁷. According to this director, Marinuzzi wrote a «symphony for textile machineries» for the latter, while in the opening titles of the pioneering 3-D documentary *Ritmo in tre* (1953)³⁸, Marinuzzi supplied what Guerrasio described as «musica elettronica». Unfortunately, none of the mentioned films has been unearthed so far, so we can only rely on the memories of this director.

2.2 *The Centro Elettronico (1956-59)*

In 1956, the Accademia Filarmonica Romana agreed to lend Marinuzzi one room in its headquarters in via San Pantaleo. Sometimes referred to as the «Centro di Fonologia dell'Accademia Filarmonica Romana»³⁹ – with the obvious intent of evoking the Studio di Fonologia in Milan (hereafter: SFM)⁴⁰ –, other times labelled with the unofficial name Centro Elettronico, the laboratory was in fact little more than a space at the disposal of Marinuzzi for his own equipment, as a note signed by the vice-president of the Academy, Adriana Panni, suggests:

ad ogni loro movimento, ne determina fisicamente il ritmo, li spiega, insomma, rendendoli decorativi e divertenti. La crudezza realistica dei rumori è stata abolita e trasfigurata in una musica dinamica di ritmo e di timbro, pronta a sottolineare senza nascondersi in un comodo ed anodino sottofondo. Se l'unità formale non è posta come assunto, perché ogni sequenza vive di vita propria, un'unità estetica, viene invece, pienamente centrata; al posto di *rondò*, di *temi con variazioni*, di *forme sonata* è evidente una compatta e coerente unità sinfonica proprio del musicista di buona razza ed in possesso di una sensibilità aderente al suo tempo e di una tecnica musicale e musico-cinematografica ragguardevolissima» (A. Zecchi, *Diorama musicale della XI Mostra Internazionale d'Arte Cinematografica*, «Bianco e Nero», 11, 11, novembre 1950, pp. 24-33: 33). Many thanks to Antonio Ferrara for bringing this review to my attention.

³⁷ G. Guerrasio, personal communication (04/08). This information is consistent with Hugh Davies's dating of Marinuzzi's first experimental works in his private studio to 1950-57 (H. Davies [comp.], *Répertoire international des musiques electroacoustiques*, Le Group de Recherches Musicales de l'ORTF and The Independent Electronic Music Center, Paris and Trumansburg [NY] 1968, p. 107).

³⁸ The documentary employed a 3-D system called *sistema Cristiani* and used footage from explorations of the Dolomites. It used 4-split screen technique and required special glasses for the audience.

³⁹ A. Quattrocchi, *Storia dell'Accademia Filarmonica Romana*, Presidenza del Consiglio dei Ministri, Roma 1991, p. 201.

⁴⁰ Emulating the Milanese 'model' was a 'Leitmotiv' recurring also in the ensuing years in Rome with the creation of the Studio di Fonologia di Roma, a 1962 seminal experience that would eventually lead to the constitution of the Studio R7 in 1967. See L. Pizzaleo, *Musica elettroacustica a Roma*, cit., pp. 65-68.

We declare that M° Gino Marinuzzi has appointed, completely at his own expense, a laboratory of electronic music which is now in operation at the site of this Academy. Since the Academy is a cultural institution, this laboratory has no commercial goals. We specify that M° Marinuzzi did not benefit from any financial supply⁴¹.

Certainly other composers who had already been part of the gatherings at Marinuzzi's house gravitated around the Centro Elettronico⁴², and it is very likely that Roman Vlad, artistic director of the Academy between 1955 and 1958, looked favourably on the inclusion of a studio devoted to electronics in the institution. Vlad frequently engaged with the world of electronics, but had no advanced technical competences in the field: for the electronic pieces he composed in Milan, he was supported by Marino Zuccheri, the chief sound technician of the SFM⁴³, while he himself acknowledged Marinuzzi and Paolo Ketoff as points of reference whenever he was in need of electronic support for his film and radio work in Rome⁴⁴. As for electronic works produced using the facilities of the Centro, it is not clear whether or not Vlad's radio opera *Il dottore di vetro*, composed for the Prix Italia 1959 and broadcast by the RAI on 26 February 1960, was partially elaborated there: it certainly received a 44-hour final edit by Bruno Maderna at the SFM in July 1959⁴⁵, but one cannot exclude that the first phase of the electronic composition took place in Rome, as Hugh Davies reported, allocating this and other electronic works by Vlad in a «studio pas retrouvé, probablement [...] un studio de Film»⁴⁶. Although not directly involving the Centro

⁴¹ «Si dichiara che il M° Gino Marinuzzi ha attrezzato, a sue complete spese, un laboratorio di musica elettronica in funzione presso la sede di questa Accademia. Detto laboratorio non ha alcuna finalità speculativa, essendo l'Accademia un ente culturale. Si precisa che il M° Marinuzzi non ha usufruito di alcuna sovvenzione. Il Vicepresidente (Adriana Panni)». The official note is dated «6 marzo 1959», and is followed by a hand-written annotation by the composer: «N.B. Il laboratorio funziona dal 1956». The document is transcribed by Zaccone (*Gino Marinuzzi Jr e l'elettronica*, cit., p. 122), who in his dissertation includes also a scanned reproduction.

⁴² Different sources confirm this information, although it is difficult to establish to what extent other composers were actively involved: Goffredo Petrassi and Guido Turchi appear to be 'institutional' presences, due to their roles in the directorial board of the Accademia, while Domenico Guaccero, Carlo Franci and Vittorio Fellegara were more directly engaged (L. Pizzaleo, *Musica elettroacustica a Roma*, cit., pp. 39-41). Federico Savina, who, as we will see, was a close collaborator of Marinuzzi and Ketoff in that period, recalls also Mario Peragallo and Gianfranco Maselli among the composers involved in experimenting with tape music (F. Savina, personal communication [03/09]).

⁴³ Vlad was invited by the RAI to compose his *Ricerzare elettronico* (1962) with the facilities of the Studio di Fonologia in Milan. As part of the same initiative, Marinuzzi was invited to compose his *Traiettorie* (1961).

⁴⁴ Vlad, personal communication (03/09). Vlad's electronic soundtracks for the films *Per Firenze* (F. Zeffirelli, 1966) and *Letà di Napoli* (unidentified, 1967), as well as for the play *La lunga notte di Medea* (M. Scaparro 1966) were appointed at NIS Film, where Ketoff was employed and Marinuzzi kept his equipment until 1967 (H. Davies, *Répertoire international*, cit., p. 110).

⁴⁵ *Produzione musica funzionale nel periodo 1° luglio 1959 [-] 1° marzo 1960*, typewritten report, ASFM; see also M. M. Novati and J. Dack (eds.), *The Studio di Fonologia: A Musical Journey 1954-1983 (Update 2008-2012)*, Ricordi, Milano 2012, pp. 294-295.

⁴⁶ H. Davies, *Répertoire international*, cit., p. 110. The reference to a «studio de Film», might even

Elettronico's facilities, the hypothesis that Carlo Franci's soundtrack for the documentary *Samba 8 ala rotante* (G. Petrosemolò 1959) was post-produced at Fonolux⁴⁷ might ratify the sort of symbiosis between the Centro Elettronico and the studio at Cinecittà where Ketoff worked as chief sound technician and Marinuzzi started to post-produce his soundtracks no later than 1959 (I will expand on this aspect later).

The only evidence of a collaborative work ascribable to the Centro is *Dialoghi nell'infinito*, a «racconto radiofonico» written by Livia De Stefani and directed by Nino Meloni⁴⁸. Conceived for the Prix Italia 1958⁴⁹, its score was officially credited to Vittorio Fellegara⁵⁰ but we learn from Davies that Marinuzzi composed the electronic parts⁵¹. This information is corroborated by the recovery of three tape reels containing preparatory materials for the radio work at the FMN⁵².

2.2.1 *Establishing a lexicon: Dialoghi nell'infinito and Antigone*

In his extensive analysis of *Dialoghi nell'infinito*, Pizzaleo singles out a series of *objets sonores* that constitute the basic electronic lexicon of this early work: sine waves undergo a variety of organizational procedures, such as mixtures in inharmonic or harmonic relation, with sharp or soft attacks and scale or glissando coordination. Other more complex 'gestures' become recognisable through their recurrence in the work: a «tremolo» effect accomplished through a sub-audio amplitude modulation, a «cheeping» effect, obtained by applying a short envelope to a group of random sine waves, and a «double-bass string» effect, attained through a combination of low and mid-low frequency sinusoids to which an envelope with almost vertical attack and slow release is applied⁵³. On this basis, Pizzaleo comments on the electronic equipment that Marinuzzi most likely had available at that point:

suggest either Cicognini's loft – where Marinuzzi continued his researches after dismissing the Centro Elettronico – or Fonolux, where Paolo Ketoff worked as a chief sound technician (see § 2.3).

⁴⁷ Ivi, p. 107. The online database of the ASAC (Archivio Storico delle Arti Contemporanee, Venezia) attributes the documentary to the XVI Mostra internazionale d'arte cinematografica di Venezia of 1955, with the misspelled title *Samba 8 alla rotante*.

⁴⁸ Marinuzzi had already crossed paths with Nino Meloni in the radio-series *Maschere italiane* curated by Anton Giulio Bragaglia and Giandomenico Giagni (1953) by Anton Giulio Bragaglia and Giandomenico Giagni (1953).

⁴⁹ A. I. De Benedictis, *Radiodramma e arte radiofonica: Storia e funzioni della musica per radio in Italia*, Edt, Torino 2004 (De Sono, Tesi 5), p. 171.

⁵⁰ The fact that Fellegara was the secretary at the Accademia Filarmonica between 1956 and 1959 reinforces the hypothesis that the electronic part of the work was done at the laboratory.

⁵¹ See H. Davies, *Répertoire international*, cit., p. 105.

⁵² The FMN has been constituted in 2013, after the acquisition and digitalisation of the composer's tape reels. Nomus has reached an agreement with Marinuzzi's heirs to acquire a digital copy of Marinuzzi's papers and scores (in progress). Reels concerning *Dialoghi nell'infinito* are inventoried as Reel 13, 20 and 33, FMN. Tracks related to the radio work are, respectively: 5-10 (Reel 13), 6-21 (Reel 20), 6-9, 14 and 16-20 (Reel 33).

⁵³ L. Pizzaleo, *Musica elettroacustica a Roma*, cit., pp. 45-48.

The music on tape seems to be composed almost exclusively via oscillators and magnetophones, while all the more complex operations on amplitude can be ascribed to protracted tape editing; it is possible that square waves are the result of the weighted sum of sinusoids and even ‘filtered white noise’ could in fact result from an enervating stratification of several sinusoids. We must instead admit the presence of a device for amplitude modulation on sub-audio band (tremolo)⁵⁴.

An analysis of the preparatory tapes substantiates Pizzaleo’s hypotheses, clearly sourcing the matrix of the compositional process in tape manipulation. The sound sources are limited to sine wave oscillators and the human voice. As for the recurring «bass strings effect», it is difficult not to recall the picturesque device described by Federico Savina as *scopacordo* (literally: broom-string), which might well have been used as a sort of envelope generator:

[It was] a broomstick to which a metal string was attached, with a piece of wood that functioned as a guitar bridge to keep the string tight, and an American magnetic pick-up that served to amplify sound⁵⁵.

Savina is a qualified oral source for complementary information regarding Marinuzzi’s early equipment. Born in Turin in 1935, he moved from Milan to Rome in 1956 and was able to collaborate with Marinuzzi on a regular basis between 1958 and 1960, after having served 28-month in the navy. For about one year after Savina’s return, Marinuzzi entered a period of frenetic research aided by his young assistant. One of the technician’s oldest memories is that Marinuzzi ordered a Viking tape recorder from the United States⁵⁶. Savina also recalled another model of tape recorder, namely the Grundig TK9,

which was one of the first recorders that could play ‘forward’ and ‘backward’, for it had two double needles and the capstan in between, so that it was possible to record in both scrolling directions without rewinding the tape⁵⁷.

⁵⁴ «La musica su nastro sembra composta quasi esclusivamente con oscillatori sinusoidali e magnetofoni, mentre tutte le più complesse operazioni sull’ampiezza possono essere ricondotte ad una paziente opera di taglio dei nastri; è possibile che anche le onde quadre siano il risultato di una sovrapposizione di sinusoidi pesate, e persino il “rumore bianco filtrato” potrebbe essere in realtà il risultato dello sfibrante lavoro di stratificazione di parecchie decine di sinusoidi. Si deve invece ammettere necessariamente la disponibilità di un apparecchio in grado di imprimere ai segnali sinusoidali una modulazione di ampiezza in banda sub-audio (tremolo)» (Ivi, p. 50).

⁵⁵ «[Era] un manico di scopa con una corda metallica, un pezzo di legno a mo’ di ponticello per tenere la corda tirata, un *pick-up* magnetico americano per amplificare il suono» (F. Savina, personal communication [03/09]). Parts of this conversation are transcribed in Italian in M. Corbella, *Paolo Ketoff e le radici cinematografiche*, cit. pp. 67-68.

⁵⁶ Viking of Minneapolis, Inc., then Telex, converted to tape recorder manufacturing around 1957. For a profile of the company’s production, refer to the record provided by the Museum of Magnetic Sound Recording, Austin (TX) <<http://museumofmagneticsoundrecording.org/ManufacturersViking.html>> (07/14).

⁵⁷ «Era il primo registratore che andava ‘avanti’ e ‘indietro’, nel senso che aveva le testine doppie e il capstan al centro, per cui poteva incidere il nastro prima in un senso poi nell’altro senza bisogno di

This information is relevant since two of the three tape reels referable to *Dialoghi nell'infinito* (Reels 20 and 33) are recorded by splitting the ¼" tape in two halves and following the two scrolling directions. Marinuzzi and Savina soon started to experiment with tape:

Marinuzzi's typical demands were: «Can I slow down the speed of the tape recorder?». [...] Then he asked me: «You know, I'd need a sound akin to wind». [...] Someone built for me a runner to cut the tapes with 30°, 60°, 90° and longer angles, to make crossfading⁵⁸.

According to Savina, the *scopacordo*, when filtered, could produce a persuasive «wind effect» that Marinuzzi eventually used in his film soundtracks, such as that for the alpinist documentary *Grandes Murailles* (G. Guerrasio 1957)⁵⁹:

I had bought a thick manual of the RCA⁶⁰ that I read at night, and that was where I found a circuit that could produce that [wind] sound effect: it was substantially a shifting filter. The problem was that we needed to work in radio frequency in order to shift frequencies. So, I started to build it in the flat where I lived: first, I made the power supply for the tubes and an elementary device with a knob, a very selective shifting filter. The next problem was how to establish the exact frequencies of the shifts. Marinuzzi's requests became more and more challenging: he wanted the filter to be suitable to be set from point to point, but it was not possible with our poor means, working on continuous-time implementation. Every time I fixed a problem he was overjoyed, but then he would come back after three days and tell me: «You made it on one octave, I need it working on two»; I would make it on two, four octaves, but in order to do so I had to solve several issues, the band was very wide. [...] The goal was to make twelve oscillators to be tuned according to our needs. To make oscillators wasn't particularly difficult [...]. But Marinuzzi asked me to 'tie' two of them, in order to produce two notes at a time and make them shift to untempered frequencies; then he wanted three at a time, up to twelve. With twelve oscillators in my flat I ended up sleeping on the floor. [...] It took me one month and a half to assemble them. In the end Marinuzzi started asking me [...] about] attack, sustain, decay... such things demanded technologies that I was not equipped to do⁶¹.

capovolgere le bobine» (F. Savina, personal communication [03/09]). The model TK9 started to be produced in Germany in 1953, see: <<http://www.tonbandmuseum.info/grundig2.html>> (10/14).

⁵⁸ «Le classiche domande di Marinuzzi erano: "Si può rallentare la velocità del registratore?" [...]. Dopodiché mi chiese: "Sai, avrei bisogno di un suono tipo quello del vento". [...] Mi ero fatto costruire una guida per tagliare i nastri con i diversi angoli, 30°, 60°, 90°, un angolo lungo in maniera che potevi miscelare due suoni» (F. Savina, personal communication [03/09]).

⁵⁹ Guerrasio recalls that the sound post-production of the film was hosted «at the studio where Paolo Ketoff worked», that is, Fonolux (G. Guerrasio, personal communication, 04/08).

⁶⁰ Savina is probably referring to F. Langford-Smith (ed.), *Radiotron Designer's Handbook*, Wireless Press, Stoney (Aus) 1934 <https://archive.org/details/Radiotron_Designers_Handbook_1953> (11/14). Officially distributed by RCA, the handbook was reprinted several times in the 1950s and was widely spread in Italian film and radio studios. Many thanks to Ilario Meandri for his suggestion.

⁶¹ «Io avevo comprato un grosso libro dell'RCA che leggevo la sera. Avevo trovato che c'era un circuito che poteva fare questo effetto [di vento], era praticamente un filtro modulabile. Solo che per muovere la

One section of *Dialoghi nell'infinito* is particularly relevant for our discussion, for it anticipates a characteristic tendency of Marinuzzi's electronic scores for the screen: at 7:39 into the work, a 20-second electronic cue displays a type of organization that «recalls traditional music syntax» and «more generally, evokes an orchestral timeline»⁶². As shown in Fig. 1, sound objects come to stand for traditional musical gestures, serving clear instrumental functions (regular rhythmic drive, inter-punctuation, melody): essential to this configuration is the underpinning ostinato, obtained through the looping of a two-part sample (highlighted in the square in Fig. 1).

For Marinuzzi, such a design can be considered as the starting point of a thread in which electronics emulates the functioning of musical instruments, and in this light it can be seen as orientating the subsequent research towards constructing a device capable of 'behaving' as a musical instrument according to necessity. The Fonosynth in fact soon represented a relatively compact studio, pandering to the musical sensibility of a film composer and aimed at adapting to different extemporaneous directions dictated by film scoring, ranging from the musical instrument to the 'noise machine'. One of the most typical uses consisted in providing drones with a perceivable pulse interweaving with the narrative and visual rhythm, capable of enacting a hybrid function in between ambience sounds and proper musical underscoring.

Hence, it is probably not by chance that this kind of 'orchestral' configuration based on looping becomes prominent in the audio-visual work immediately following *Dialoghi nell'infinito*, that is, the TV adaptation of Sophocles' *Antigone*, directed by Vittorio Cottafavi and broadcast on 5 December 1958. A rather experimental work realised by an accomplished theatre and film director who was also a prolific theorist of early television⁶³, *Antigone* resulted in a complex multi-camera live broadcast and consistently demanded electronic music, as described in the director's notes:

[frequenza], cosa che oggi si farebbe con un potenziometro, allora bisognava farlo in radiofrequenza. Così mi misi a costruirlo nella piccola casa dove abitavo: cominciai con l'alimentatore per le valvole e feci un primo apparecchio con una manopola, praticamente un filtro molto selettivo che si muove. Il problema successivo fu come farlo muovere, da che punto a che punto. Le richieste di Marinuzzi si facevano sempre più esigenti: voleva che il filtro si muovesse da un punto a un punto, nonostante non fosse possibile con quei mezzi farlo in banda continua. Appena gli risolvevo un problema era contentissimo sul momento, però tre giorni dopo tornava e mi diceva: "Sai, però, tu me l'hai fatto su un'ottava, a me servono due ottave"; facevo due, quattro ottave, per fare ciò bisognava risolvere parecchi problemi, la banda era molto ampia. [...] Lo scopo era avere dodici oscillatori da 'accordare a piacimento'. Quindi mi misi a fare gli oscillatori, questo non era particolarmente difficile [...]. Poi Marinuzzi mi chiese di 'legarne' due, in modo da poter eseguire due note contemporaneamente e farle slittare su frequenze non temperate; poi di seguito tre, fino ad arrivare a dodici. Con dodici oscillatori in casa io finii per dormire per terra. [...] Fu un mese e mezzo di lavoro. Alla fine Marinuzzi mi chiese: "Sì, ma come faccio a suonare? Posso solo fare degli *shift*, mi manca l'attacco, il *sustain*, il *decay*..."; diventava una tecnologia che io non ero in grado di fare» (*Ibid.*).

⁶² «I materiali uditi finora vengono organizzati in strutture complesse che si richiamano alla sintassi musicale tradizionale [...]. Si tratta di oggetti sonori, più o meno reiterati, che nel loro complesso evocano una *timeline* orchestrale» (L. Pizzaleo, *Musica elettroacustica a Roma*, cit., p. 46).

⁶³ See A. Aprà, G. Bursi and S. Starace (a cura di), *Ai poeti non si spara: il cinema e la televisione di Vittorio Cottafavi*, Cineteca, Bologna 2010.

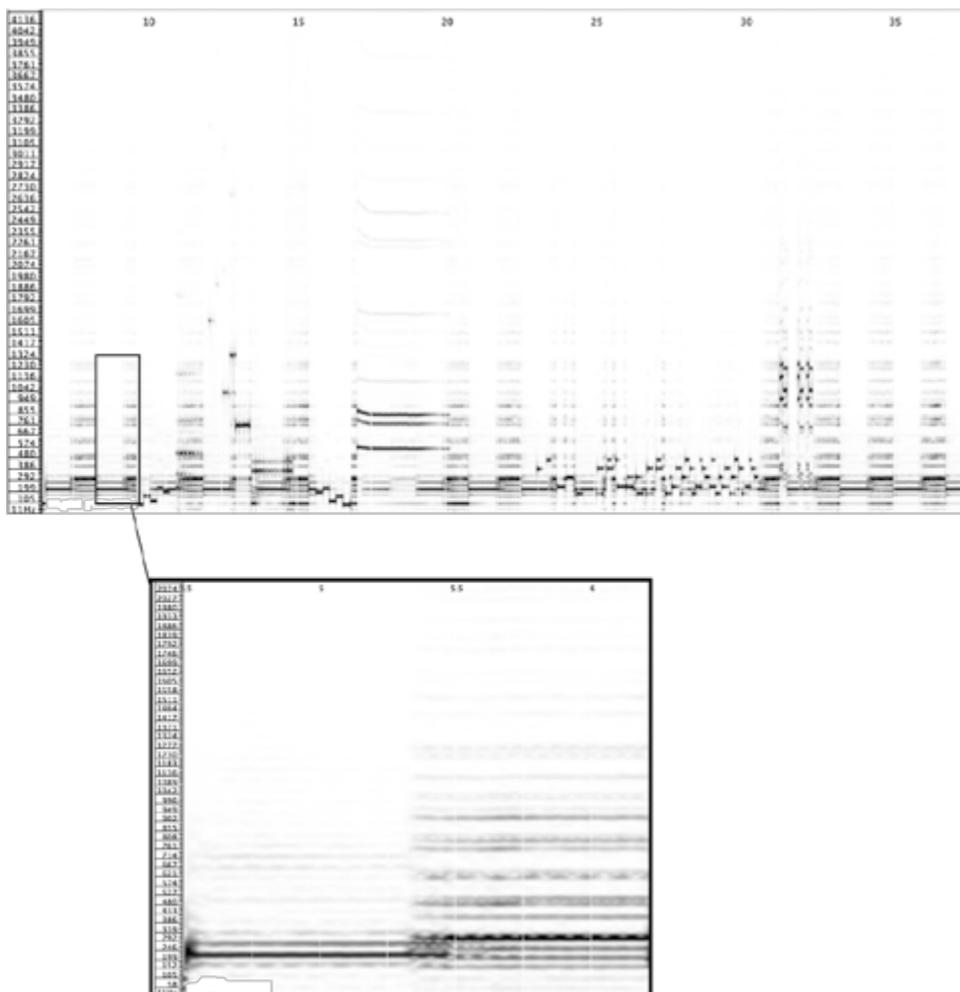


Fig. 1 Spectrogram of Track 17, Reel 33 (online audio resource no. 1), with a detail of the ostinato sample as heard singularly in Track 16 (in the square, online audio resource no. 2). The software used throughout the essay for spectrograms and sound analysis is Sonic Visualiser, v. 2.4.1, developed by at Queen Mary, University of London <<http://www.sonicvisualiser.org/>> (11/14). Online audio resource: <<http://www.fupress.net/index.php/mt/article/view/16449/15353>>.

*Music has to be electronic. Sophocles demands abstract and pure sound, that is, without secondary vibrations. A music out of time, classic, but sounding extremely modern. At the beginning of every choir's intervention, music must remind the spectator of the presence of the divine, especially when the deep and desperate humanity of the story makes us forget it. It is necessary to remind the spectator at any time of the sacred character of Greek theatre*⁶⁴.

⁶⁴ «La musique doit être électronique. Pour Sophocle, il faut un son abstrait et pur, je veux dire sans vibrations secondaires. Une musique en dehors du temps, classique, mais aux sons d'un modernisme extrême. La musique, à chaque intervention du chœur, doit rappeler au spectateur la présence du divin

As a general observation, Marinuzzi's choice to combine a vocalising choir (Coro Polifonico Romano conducted by Gastone Tosato)⁶⁵ with purely synthetic sound finds an evident dramaturgical motivation in the director's notes as the most straightforward way of sonically illustrating these human and divine tones of Greek theatre. The most surprising aspect, in comparing the music for this theatre adaptation to that for the radio work only four months prior, is the decisive increase in timbral richness and nuance, which suggests that technological research at the Centro Eletttronico had proceeded quickly⁶⁶. The analysis of the opening titles⁶⁷ exhibits that the emulation of orchestral functions is paramount here and further emphasised by the interaction with the choir. Fig. 2 shows how the entire cue is constructed through the juxtaposition of autonomous stand-alone blocks, each of which results from a combination of elements that respond to different musical functions, such as rhythmic drive, melodic contour, punctuation. For example, number 17 indicates a series of glissando gestures composing a sort of 'harpist palette' that plays an essential unifying role in the cue, working as a majestic introductory motto for the choir, and as a punctuation of the entire piece. Other recurrent micro-elements, such as those identified by numbers 1 and 13, construct a tight mnemonic directionality.

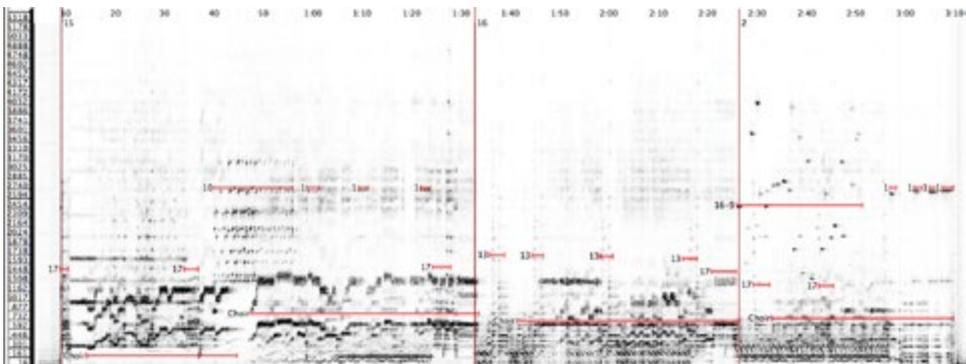


Fig. 2 Spectrogram of Track 2, Reel 22 (online audio resource no. 3). The numbers correspond to the indexes of preparatory tracks collected on Reel 16, which served as the basis for the construction of the opening titles. The vertical lines mark the macro-segmentation (matching respectively with Tracks 15, 16 and 2 of Reel 16, online audio resources nos. 4, 5 and 6), while the horizontal lines highlight, by track index, recurrent single elements that can be identified in the preparatory reel. Online audio resource: <<http://www.fupress.net/index.php/mt/article/view/16449/15353>>.

alors que l'humanité profonde et désespérée de l'histoire nous l'a fait oublier. Il faut toujours rappeler au spectateur le caractère sacré du théâtre grec» V. Cortafavi, *Notes pour la mise en scène d'Antigone de Sophocle*, «Présence du Cinéma», 9, 1961, pp. 33-41: 40; emphasis in the original.

⁶⁵ The Coro Polifonico Romano was the choir of the Accademia Filarmonica Romana.

⁶⁶ The complete selection of musical cues for *Antigone* can be found in Reel 22 (FMN), while Reel 16 contains the raw preparatory materials, which served as working modules of diverse complexity for the composition of *Antigone's* definitive cues.

⁶⁷ For this analysis I used Track 2, Reel 22 (FMN).

By delving into the actual composition of each macro-segment in more detail, it becomes clear that they are invariably constructed on a rather transparent dual logic. Surprisingly, and contrarily to *Dialoghi nell'infinito*, Marinuzzi conceived this work by splitting the ¼" tape in two halves but using them this time in the same scrolling direction, as a 2-channel recording. A closer look at the first section of the opening titles (Fig. 3) clearly shows how sound objects are displaced on the two half-channels in order to set up a binary polarisation of complementary characters, such as, for instance, a pedal drone (ch.1) against an ostinato figure (ch.2): although subjective, I believe that my suggestions of orchestral families help clarifying the composer's frame of mind. At the same time, the modular/combinatory conception underpinning the construction of each element, from the micro- to the overarching structure of the piece, should now be evident.

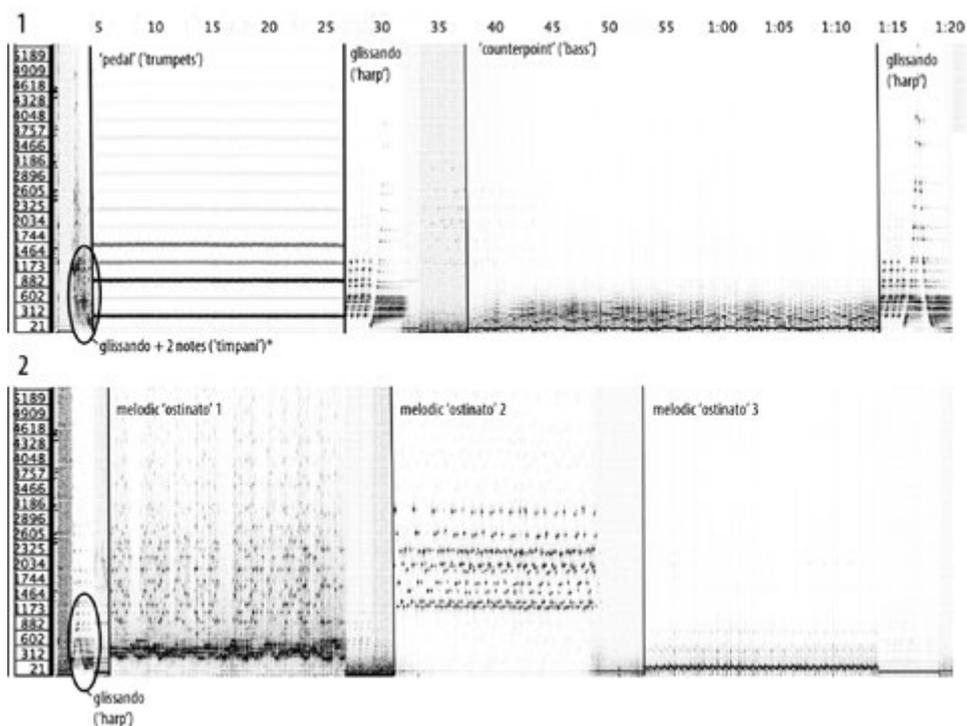


Fig. 3 Spectrograms of channels 1-2, Track 15, Reel 16 (online audio resource no. 4). Vertical lines signal the attack of each different sound object, which I labeled similarly to orchestral functions. The asterisk signals that the same sound object can be found in *Dialoghi nell'infinito*. Online audio resource: <<http://www.fupress.net/index.php/mt/article/view/16449/15353>>.

As for the timbral richness that presupposes an evolution of the Centro Elettronico's equipment, indirect evidence suggests the existence of a regular exchange with the Studio di Fonologia in Milan, ostensibly a way for Marinuzzi to acquire new skills for

projecting devices. For instance, a copy of Reel 22 containing the definitive cues for *Antigone* can be found at the ASFM under the cataloguing number R013⁶⁸. Reel 18 is labelled «Effetti elettronici (Berio)» (Fig. 4) and suggests either that Marinuzzi borrowed some raw sound effects from Berio, or that he prepared some for him: and yet, unfortunately, Marinuzzi's habit of overdubbing his tapes for new uses has deprived us forever of this reel's original content. Finally, the most apparent proof of such collaboration is a letter by Marinuzzi to his «friends» of the SFM. The amicable tone of the letter suggests that contacts between the SFM and Marinuzzi occurred on a regular basis and that the composer drew on the circuits schemes sent to him by Marino Zuccheri, in order to set up some of his own facilities:

Dear friends,

I've been wanting to write you for some days to thank you for your courtesies during my stay in Milan. As usual, back in Rome I was submerged by various family and work troubles. To make up for it, I fixed my oscillators and now I have terrific square waves! [Untranslatable play on words].

I kindly ask my friend Marino [Zuccheri] to receive from Dr. Lietti the promised schemes [play on words] (dyn. mod. – ring mod. – octave filters and possibly *delta-effè* filter⁶⁹) and send them to Federico Savina, via Gregorio VII, 324, Roma. Thanks in advance. I think that our Renzo [Dall'Oglio] will soon go around with his baby on his arm instead of his worksheet [play on words] Greetings to Roman Vlad from me [...] ⁷⁰.

The letter is undated, but should have been written around 1959-60, according to a couple of cross-references: (a) Roman Vlad, who is mentioned, was possibly with Maderna at the SFM, editing his radio opera *Il dottore di vetro*⁷¹; (b) the reference to Renzo Dall'Oglio might signify that he had already become the director of the SFM, after Berio left in 1959; (c) we know that Savina 'left' Marinuzzi at the latest in 1961, when he was hired at International Recording.

⁶⁸ The first seven tracks of reel R 013 (ASFM) are the exact copy of seven of the eight tracks of Reel 22 (FMN). Track 8 of R013 is instead a (choral!) cue from Berio's «racconto radiofonico» *Waterloo* (G. B. Angioletti 1957).

⁶⁹ The «delta-effè» (read: ∂ -f) filter is arguably a normal bandpass filter, which was given the most creative denominations in Italy in those years. « ∂ -f» stands for the frequency band to which the filter refers, or, more precisely, the distance (in Hz) between the frequency of the band centre and the 'bell' point, with a certain number of dB of amplitude decay. Many thanks to Luigi Pizzaleo for his scientific consultancy.

⁷⁰ «Cari amici, / volevo scrivervi già da parecchi giorni per ringraziarvi ancora di tutta la cortesia che mi avete usato in occasione del mio soggiorno milanese. Come al solito, arrivando a Roma, sono stato travolto da vari casini lavorativi e familiari. In compenso ho rimesso a posto i miei oscillatori ed ora dispongo di onde quadre da far faville! Valgono addirittura doppio e sono perciò bi-onde (chiedo scusa!). / Prego l'amico Marino di farsi dare dal Dr. Lietti i Promessi schemi (Mod. din. – Mod. anello, Filtri d'ottava e possibilmente il filtro deltaeffè) e di mandarli a Federico Savina, via Gregorio VII 324 Roma. Grazie anticipate. / Penso che il nostro Renzo fra poco girerà col figlio anziché col foglio. Perciò auguroni molto affettuosi. Salutatemi il Roman Vlad, anche a lui buon lavoro a scala variabile. / Ancora grazie di tutto, / vostro Gino Marinuzzi» (G. Marinuzzi Jr, Letter to the Studio di Fonologia di Milano, [1959-60], ASFM, «Corrispondenza 1959», n. 321).

⁷¹ See footnote 45.

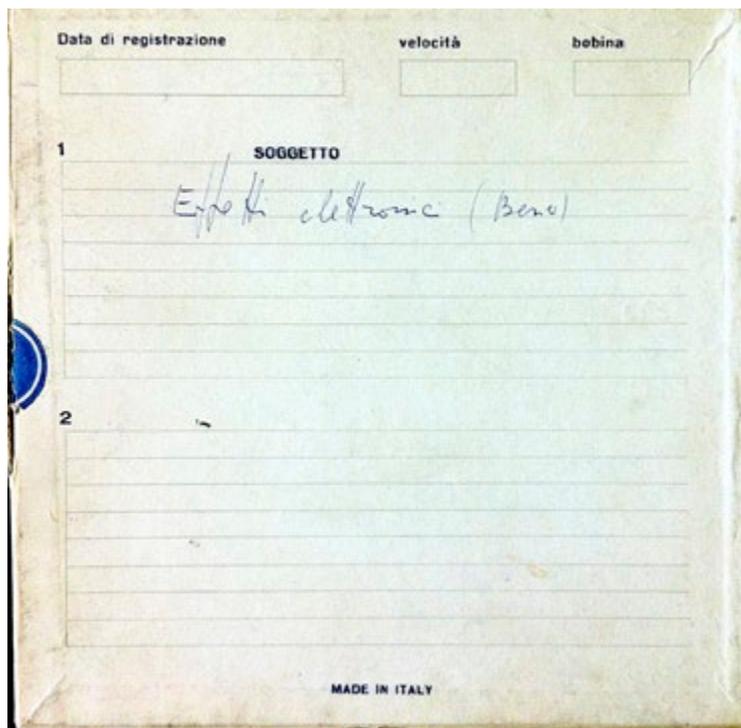


Fig. 4 Reel 18, box (*verso*), FMN.

2.3 Constructing the Fonosynth (1959-63)

1959 was a watershed year for electronic music in Italy on the whole, in Rome as well and in particular for Marinuzzi. If Berio's resignation from the SFM and his leaving for Tanglewood, together with the closure of the journal and concert season «Incontri musicali», marked a phase in which the Milanese electronic music scene underwent restructuring⁷², other Italian centres were beginning to produce new initiatives, such as the epochal breach of electronic music at the Venice Biennale and the creation of the GUNM (Gruppo Universitario per la Nuova Musica) in Palermo⁷³. Rome in particular witnessed the first large-scale penetration of international electronic experiences into its cultural life: Antonio De Blasio organised a conference-concert at the Discoteca di Stato, where electronic compositions by himself and Vittorio Gelmetti were publicly presented; the first issue of the journal «Ordini» was

⁷² N. Scaldaferrì, *Musica nel laboratorio elettroacustico: Lo Studio di Fonologia di Milano e la ricerca musicale negli anni Cinquanta*, Libreria Musicale Italiana, Lucca 1997 (Quaderni di Musica/Realtà, 41), pp. 84-85.

⁷³ D. Tortora, *Nuova Consonanza: Trent'anni di musica contemporanea in Italia (1959-1988)*, Libreria Musicale Italiana, Lucca 1990 (Musicalia, 2), pp. 15-19.

released under the editorial board made up of Franco Evangelisti, Egisto Macchi, Guaccero – later to co-found the Studio R7 – and musicologist Antonino Titone⁷⁴; lastly, Cage and Darmstadt made the first breakthrough at the Accademia Filarmonica Romana⁷⁵. The concert on April 30 at the Teatro Eliseo conflated all at once the main tendencies of the avant-garde: Maderna's *Musica su due dimensioni* (1958) was given its national première, and for the first time *Thema: Omaggio a Joyce* (Berio, 1958), *Gesang der Jünglinge* (K. Stockhausen, 1955-56) and Pierre Boulez's *Sonatine pour piano et flûte* (1946) were performed in Rome, as well as Evangelisti's *Incontri di fasce sonore*, which he had composed two years prior at the WDR in Cologne. In the same programme, alongside Hans Werner Henze (*Whispers from Heavenly Death*, 1948) and Goffredo Petrassi (*Serenata per cinque strumenti*, 1958), Marinuzzi too was to present his *Intermezzi per Antigone*, clearly consisting of excerpts of his music for the mentioned TV adaptation. It should not surprise us then, that Marinuzzi's piece stood apart, signalling, perhaps for the first time so blatantly, his distance from the cornerstones of the «Darmstadt generation⁷⁶»: Marinuzzi's *Intermezzi* did not make use of dodecaphony, serialism or alea, and his more traditionally oriented language was promptly exploited by an ultra-conservative critic as a way to instil a gratuitous (and frankly unsustainable) polemic within the avant-garde world:

[...] Gino Marinuzzi junior, with his *Intermezzi per Antigone*, was the least chaotic of all: he proved that, even with electronic means, it is possible to record a somewhat coherent music. Instead, others, such as Evangelisti, Stockhausen, Maderna, Berio, think that electronic apparatuses must bring to the fore twists of sound, sonic bands and screeches that have little to do with music⁷⁷.

From 1959 onward Marinuzzi's electronic research was predominantly audio-visual, and this turn coincided with a new period of rambling that gravitated around three venues: his domestic studio (or the still active Centro Elettronico)⁷⁸, a loft in

⁷⁴ Ivi, pp. 25-28.

⁷⁵ See A. Quattrocchi, *Storia dell'Accademia Filarmonica Romana*, cit., p. 203. For Gioachino Lanza Tomasi, that concert «era sostanzialmente la prima irruzione massiccia di Darmstadt nella programmazione romana» (G. Lanza Tomasi, *La musica contemporanea: un impegno costante*, in A. Quattrocchi, *Storia dell'Accademia Filarmonica Romana*, cit. pp. 227-72: 268).

⁷⁶ Ivi, p. 203.

⁷⁷ «Gino Marinuzzi junior, con i suoi *Intermezzi per l'Antigone* è risultato il meno caotico di tutti: infatti tiene presente che con lo strumento elettronico è possibile registrare anche musica che abbia una certa linea. Altri, invece, Evangelisti, Stockhausen, Maderna, Berio pensano che con gli apparecchi elettronici si debbano portare in primo piano contorcimenti di suoni, fasce sonore e stridii che con la musica hanno poco a che fare» (S.A., *La vita musicale in Italia*, «Musica d'oggi», 2, 6, giugno 1959, p. 260). I am grateful to Laura Pronestì for bringing this article to my attention.

⁷⁸ There is no direct evidence for the year of the dismissal of the Centro Elettronico. I am inclined to date it to 1959-60, although Davies reports it active until 1961-62 (H. Davies, *Répertoire international*, cit., p. 108); however, we know from Strini that the researches on the Fonosynth took place in Cicognini's loft, and he has no memories about the Centro Elettronico.

via Margutta 33, belonging to film composer Alessandro Cicognini (1906-95)⁷⁹ and Fonolux, the post-production sound studio at Cinecittà where Savina worked with Ketoff as an apprentice. When Savina moved to International Recording in 1961, Marinuzzi had already turned to a student of electronic engineering named Giuliano Strini (b. 1935). Strini would regularly work in Cicognini's loft with Marinuzzi who paid him 27,000 liras per month, a very appealing salary for a young student who was brilliantly completing his studies⁸⁰. Today Strini is a retired professor at the Department of Physics at the University of Milan, and he recalls those days of research as a formative experience for his own studies, with special regard to his research on transistors⁸¹. Although the Fonosynth was based on tube technology, Strini stresses the fact that he projected an electronic transistor switch (*commutatore elettronico*), a component that does not appear in the exemplar of the synthesizer preserved today at the Deutsches Museum in Munich⁸².

I had conceived an electronic switch [to be used for the new satellite technology]: on a satellite you have several sensors and it is impossible to couple each sensor with a transmitter, therefore the electronic switch enabled you to move quickly from one sensor to the other. At that time, only telephone switches were available, which were very slow because they were mechanic, let alone their weight that was incompatible with the needs of a satellite. Hence, a transistor switch allowed this kind of usage. However, the utility of the switch on the Fonosynth was not so much to move the signal from one oscillator to the other, but to obtain completely new sounds: the speed of switching, in fact, becomes part of the fundamental frequency of the resulting sound, thus the electronic switch helped us obtain an enormous variety of timbres. The possibilities of an electronic switch are in fact huge: you can mix signals basing on time division instead of frequency division. This is the point: if you want to synthesize two signals, you can

⁷⁹ Cicognini was a close friend of Marinuzzi and together they scored two films together: *Il maestro di Don Giovanni* (*Crossed Swords*, M. Krims, 1954) and *Il giudizio universale* (*The Last Judgement*, V. De Sica, 1961). Marinuzzi's electronic music for the latter is uncredited. Concerning Cicognini's studio, see also Savina's contribution in this issue.

⁸⁰ This and the following information are based on two conversations I had with Strini, the last of which I video-recorded on July 2012.

⁸¹ Strini's scientific articles published during or immediately after the realisation of the Fonosynth prove that his researches alimented his applications of the transistor theory to the synthesizer. For reference, see: G. Strini, *A Linear Gate Circuit for High-Speed and Low Level Switching Application*, «Alta frequenza», 31, 11, 1962, pp. 160-66; U. Pellegrini and G. Strini, *I transistori in regime di saturazione e il loro uso come interruttori*, «Rendiconti della LXIV Riunione Annuale», Stresa 1963, pp. 1-7.

⁸² It is essential to specify that the exemplar of the Fonosynth that is today preserved in Munich is in fact a second version of the machine, on which Marinuzzi allegedly started to work in 1967, right before the constitution of the Studio R7 (see H. Davies, *Répertoire international*, cit., p. 108: «version nouvelle du Fonosynth sous construction, 1967»). In the mentioned interview on *Musica ex machina* (1967), Guaccero tells Marinuzzi: «If I'm not wrong you are handcrafting a brand new device in this period». We do not know the nature of the differences between the second and the first version of the synthesizer: the few surviving historical pictures of the synthesizer can approximately be dated to 1968, and portray the same exemplar that is held in Munich (see Fig. 5). I omit in this essay a technical description of the Fonosynth, which is thoroughly illustrated in L. Pizzaleo, *Il luitaio elettronico*, cit., pp. 34-38.

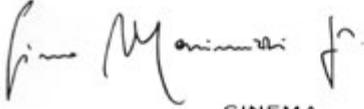
add them analogically, so you hear both of them simultaneously (it is easily done with a couple of resistors). But if you mix them via a switch, the outcome is totally new, for it results from the harmonics generated by the turning on and off of the oscillators, at the frequency of addition/difference between the turning off and the original frequency; then you obtain a very rich spectrum, that becomes even richer the more signals are involved. The Fonosynth had 8 channels, which means that it was possible to mix up to 8 in-signals: it was the first time that someone did anything like that⁸³.

Strini's account is also essential to date the completion of the Fonosynth to no earlier than 1963⁸⁴. In fact, Strini graduated in November 1962 and moved to Milan right after, without seeing the Fonosynth completed. Whilst he strongly emphasises his own responsibility in the realisation of the main electronic devices – not without a polemic undertone for having being neglected in earlier historical recollections about the Fonosynth – he credits the assembly work entirely to Ketoff:

The assembly of all the materials came later. There were scattered pieces on a desk, maybe one exemplar for each piece: what they did was to duplicate them and put them

⁸³ «Avevo fatto il commutatore elettronico perché in un satellite Lei ha parecchi sensori e non può mettere un trasmettitore per ogni sensore. Allora bisognava leggerne prima uno, poi l'altro, poi l'altro e via dicendo. Dunque si trattava di fare un commutatore veloce che passasse da uno all'altro. I commutatori che c'erano a quell'epoca erano quelli telefonici che, a parte il peso che era assolutamente impensabile da mettere su un satellite, erano molto lenti perché erano meccanici. E allora si poteva fare con dei transistori. Però l'uso qui [nel Fonosynth] non è tanto commutare da un segnale a un altro, il fatto è che se Lei ha alcuni oscillatori e li commuta abbastanza velocemente, non sente prima uno, poi l'altro e cose di questo genere, perché se lo fa ad una frequenza di, ad esempio, 500 Hz, ottiene un suono completamente nuovo. Cioè, la velocità di commutazione entra a far parte della frequenza fondamentale del suono risultante, quindi ciò significa ottenere una grandissima varietà di possibili timbri. Le possibilità di un commutatore elettronico sono praticamente enormi: Lei può mescolare con divisione di tempo invece che con divisione di frequenza. Questo è il punto: se Lei vuole mescolare due segnali li può, diciamo così, sommare in modo analogico, dunque li sente entrambi simultaneamente. Questo lo si può fare facilmente con un paio di resistenze. Se invece lo fa con un commutatore, ottiene una cosa completamente nuova. 'Switchandolo' significa che Lei accende e spegne uno e l'altro segnale: quando Lei accende e spegne qualcosa, genera una quantità enorme di armoniche alla frequenza somma/differenza della frequenza di spegnimento e della frequenza originale, quindi viene fuori uno spettro ricchissimo. Poi di questi segnali ne può sommare due, tre, dieci, quanti ne vuole. Mi sembra che il Fonosynth avesse 8 canali, quindi Lei metteva fino a 8 segnali in ingresso e poteva mescolarli come voleva: era la prima volta che si faceva» (G. Strini, personal communication [07/12]).

⁸⁴ There has been debate around the Fonosynth's construction dates. At the origins of this uncertainty is a typewritten curriculum preserved at the GMC, which pre-dates it even to 1957, making it coincide substantially with the foundation of the Centro Elettronico (this document was erroneously dated to 1958 by Zaccone [*Gino Marinuzzi jr. e l'elettronica*, cit., p. 125], but it could not have been written prior to 1965, since *La signora Paulatim*, *La mandragola* and other works of the early 1960s are mentioned). There is now agreement in situating the beginnings of the research that would eventually lead to the modular synthesizer to the conventional date of 1957. Furthermore, Strini's account perfectly matches with a document in which Paolo Ketoff maintains that «in 1962 Marinuzzi turned to me to realise a device incorporating a series of oscillators, filters and modulators to obtain electronic sounds. From this collaboration the Fonosynth originated [...]»; P. Ketoff, *Synket, generatore elettronico di suoni sintetici* [...], 1967, transcribed in D. Tortora, *Nuova Consonanza: 1989-1994*, Libreria Musicale Italiana, Lucca 1994 (Musicalia, 2A), pp. 124-6: 124.


 CINEMA

ROMANZO D'AMORE LA CARROZZA D'ORO AMO UN ASSASSINO 1800 (Tibaldi) A FIL DI SPADA IL MANTELLO ROSSO EPICOLE ALLA CONQUISTA DI ATLANTIDE SARTTE DIO DELLA GUERRA CUORI UMANI VENTO DEL SUD IL MAESTRO di D. Giovanni (in coll. con A. Cicognini) LE VOCI BIANCHE LE PIACEVOLI NOTTI HONG KONG UN ADDIO LA MANDRACOLA MATCHLESS (in coll. con E. Morricone) OPERAZIONE TRE GATTI GIALLI TERRORE NELLO SPAZIO AMORE O QUALCOSA DEL GENERE	(Colletti) (Rinori) (Bardino) (Blasetti) (Bragaglia) (Scotese) (Cottafavi) (M. Baiò) (Provenzale) (Krimas) (Festa Campatillo e M. Francina) (Lucignoni e Crispino) (Poldero) (Lattuada) (Lattuada) (Bova) (Partesano)
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Fra i documenti più importanti: **L'ITALIA NON E' UN PAESE POVERO** (Ivenci)
IL MILLESIMO DI MILLIMETRO (Sabell)
KANUT SAR (Guerrasio)

Racconti sceneggiati (Televisione): **TOM JONES**
IL CONTE DI MONTECRISTO
SIMILIATI E OFFESI
DEMETRIO PIANELLI



Marinuzzi alle prese con il «Fonosynth», apparecchiatura per la realizzazione di musica elettronica costruito da Strini, Keteff e Marinuzzi stesso.



Fig. 5 Brochure, [ca. 1968], GMC, with details of the Fonosynth (probably second version). The assumption on the date is made possible by the list of works included in the first page, the most recent of which date 1968 (*Amore o qualcosa del genere*, D.B. Partesano; *Matchless*, A. Lattuada). The fact that *Jekyll* (G. Albertazzi 1969) is not mentioned suggests that the brochure is prior to its realisation. The only unidentified title is *Cuori umani*.

together. I was not in touch with Ketoff: after I moved to Milan, Marinuzzi was collaborating with Ketoff and I remained in touch with Marinuzzi via mail, so that he could transfer my work to Ketoff. They assembled the Fonosynth when I was already in Milan. [...] One thing that has to be credited to Ketoff are the dynamic compressors. He was the head of the studio at Cinecittà and there he had a small laboratory in which he built various devices for music recording. So he handcrafted dynamic compressors and Marinuzzi would say: «How wonderful is the dynamic compressor!», because if you apply it to the piano, the attack could be attenuated and a much longer sound would result, a sort of dynamics... Another thing that Marinuzzi had already [before we started to work together] was the ring modulator⁸⁵.

As for Fonolux, tangentially mentioned in this passage by Strini as «the studio at Cinecittà», we should not fail to notice that the suffix Fono- in the synthesizer's name suggests at first sight a possible link to the name of the post-production company in question: in other words, the name might have been a tribute to the studio where Paolo Ketoff, who worked there as a chief technician between 1957 and 1965⁸⁶, experimented with techniques of sound post-production, dismantled and customised machines, developed handcrafted devices such as dynamic compressors, reverb chambers and plates, and established a new standard of sound post-production concurrently with the other new rising studio in Rome, International Recording⁸⁷.

2.4 *Sampling and improvising (1961-67)*

The production chain of the film music industry entails compositional and aesthetic dynamics that are far removed from those required in the context of laboratory experimentation, in that they «cannot afford the long times of the studio residences [...], nor that praxis of 'trying and retrying' which characterised the timbral exploration of the earlier period of the Milanese studio»⁸⁸. Or, to put it in Savina's more colourful tone:

⁸⁵ «L'assemblaggio dei materiali è venuto dopo, erano tutte cose sparse su un tavolo, magari in un solo esemplare, si è trattato di duplicarli e metterli assieme. Tra me e Ketoff non ci sono mai stati collegamenti: quando mi sono trasferito a Milano, Marinuzzi collaborava con Ketoff, allora ci siamo scritti un po' di lettere per trasferire le cose che avevo fatto e spiegarle a Ketoff. Hanno assemblato il Fonosynth che io ero già a Milano. [...] Una cosa che va attribuita a Ketoff sono i compressori dinamici. Ketoff era a capo del laboratorio di registrazione a Cinecittà e aveva un laboratorietto in cui costruiva vari aggeggi per registrare la musica. Allora lui aveva in modo artigianale fatto i compressori dinamici e, diceva Marinuzzi: "Gran bello il compressore dinamico!", perché suonando il pianoforte su un compressore dinamico l'attacco iniziale si abbassava e quindi veniva una cosa molto più lunga, una dinamica... Un'altra cosa che aveva già Marinuzzi [prima che iniziassimo a lavorare insieme] era il modulatore ad anello» (G. Strini, personal communication [07/12]).

⁸⁶ See Ketoff's *curriculum vitae* transcribed in L. Pizzaleo, *Il liutaio elettronico*, cit., pp. 18-19.

⁸⁷ See I. Meandri and M. Corbella's *Appendice tecnica* in this issue.

⁸⁸ «La catena di produzione del film non può permettersi i tempi lunghi delle residenze in studio [...] né può permettersi quella prassi del "provare e riprovare" che caratterizza l'esplorazione timbrica della prima stagione milanese» (L. Pizzaleo, *Il liutaio elettronico*, cit., p. 34).

Film is a ‘cook’n’eat’ business: you need a device to play the film, you make the sounds and the film is done, you can’t go back and change it. In Milan they made musical compositions, they didn’t have the problem of time. Here in Rome there was immediacy⁸⁹.

This very notion of ‘immediacy’ translated into two apparently clashing attitudes, which, as I will try to demonstrate, are in fact manifestations of the same frame of mind: sampling and improvising. With sampling I allude to the fact that Marinuzzi constituted a sort of sound library through which he was able to ‘quickly’ supply electronic sound effects to film soundtracks. Recurring electronic sound objects are detectable, with few exceptions, in most of his films post-produced at Fonolux⁹⁰ and later at NIS Film. There is no room to go into details here, but a few examples should suffice to show that Marinuzzi capitalized from his seminal experiments on *Dialoghi nell’infinito* and *Antigone*, stored sound objects onto tape and recombined them in several ways, according to a film’s narrative needs: for instance, the same ‘chipping’ and ‘tremolo’ effects that were heard in *Dialoghi nell’infinito* reappear in *Il giudizio universale*⁹¹, *La mandragola* (*The Mandrake*, A. Lattuada 1965, post-produced at International Recording), *Terrore nello spazio* (most probably post-produced at NIS Film) and *Matchless* (A. Lattuada 1967, co-scored with E. Morricone and probably post-produced at NIS Film); elements of *Antigone*’s electronic cues, especially the ostinatos analysed in Fig. 3, supply a good part of the material for the animated sequence in the first episode of *L’Italia non è un paese povero*; similarly, the ‘double bass string’ effect occurs in the sequence just mentioned and again in *Ercole alla conquista di Atlantide*, when Hercules discovers Uranus’ stone. Such recurrences entail a re-semantisation of sound ‘gestures’ from film to film, as is the case, for example, of the ‘harp glissando’ from *Antigone* mutating into a radioactive light sound in *Ercole alla conquista di Atlantide* (Fig. 6).

I suggest that this early sampling practice can be regarded as a peculiar form of improvisation in the environment of a post-production studio: the limited sound palette afforded extemporary short-hands for narrative demands, for which both traditional music and naturalist soundscapes were thought to be inappropriate. The arrival of the Fonosynth in 1963 allowed these demands to be dealt with in a manner more akin to musical thinking.

⁸⁹ «Il film è una cosa ‘cotta e mangiata’, devi avere un apparecchio, vai in sala, vedi il film, fai i suoni che servono, e il film è fatto, non si può tornare dopo due mesi per modificarlo. A Milano facevano composizioni musicali e non avevano il problema del tempo. Qui a Roma c’era l’immediatezza» (F. Savina, personal communication [03/09]).

⁹⁰ A tentative list of Marinuzzi’s titles post-produced at Fonolux would have to include: *Grandes Murailles* (G. Guerrasio 1957), *Vento del sud* (E. Provenzale 1959), *L’Italia non è un paese povero* (*Italy is not a Poor Country*, J. Ivens 1960), *Ercole alla conquista di Atlantide* (*Hercules and the Captive Women*, V. Cottafavi 1961), *Il giudizio universale* (*The Last Judgement*, V. De Sica 1961), *Kanjut Sar* (G. Guerrasio 1961), *Marte, dio della guerra* (*The Son of Hercules vs. Venus*, M. Baldi 1962).

⁹¹ Marinuzzi’s presence in this film, officially credited to Cicognini for the acoustic score, is corroborated by SIAE evidence.

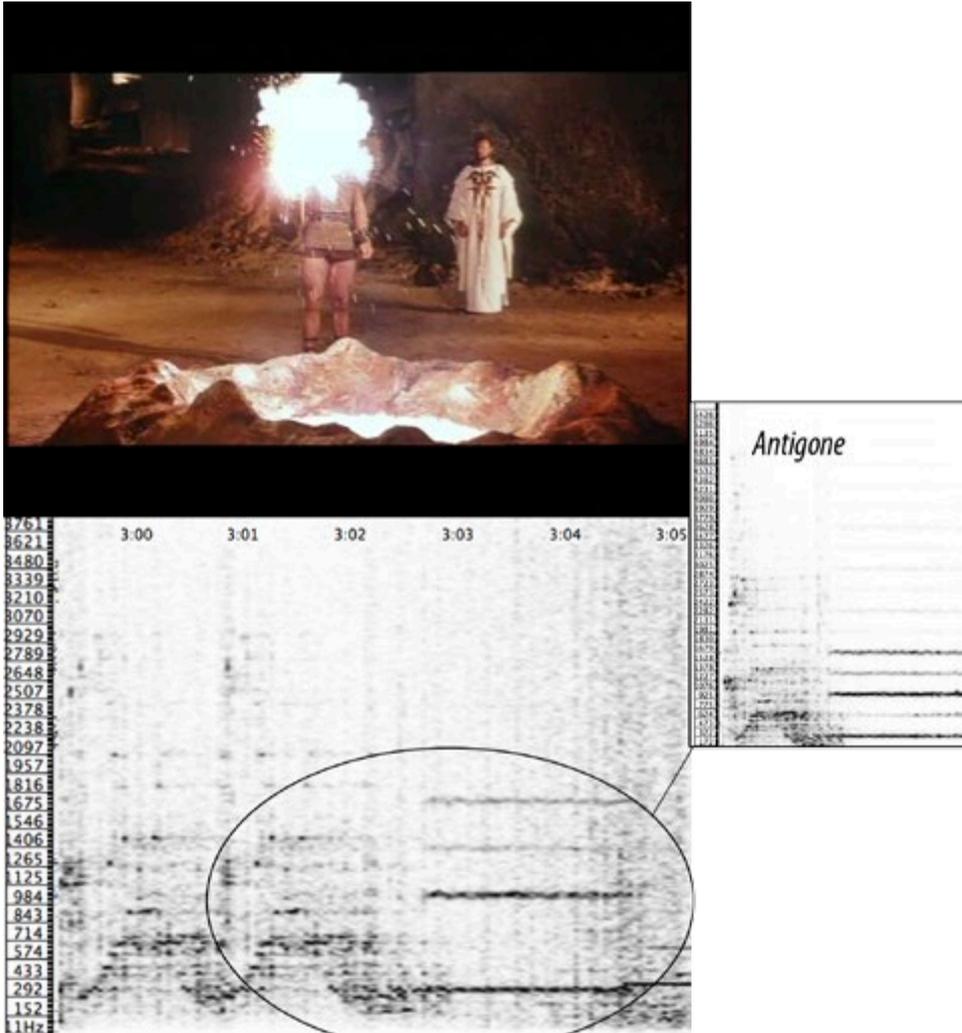


Fig. 6 Spectrogram of the sync-point in *Ercolo alla conquista di Atlantide* (1:15:05-1:15:09). In the square is the same sound effect identified as «harp glissando» in *Antigone* (see Figs. 2-3).

I insist on the notion of improvisation because it emerges as a paradigm of Marinuzzi's poetics from most of his written testimonies. Marinuzzi's half cynical, half ironical refusal to provide Dall'Oglio with a description of *Traiettorie* (1961) – his only commissioned electronic piece while in residence at the SFM – can be understood as a sign of uneasiness towards forms of structural planning and notation of his electronic compositions:

[...] I detest speaking about my work. Feel free to say what you like about it, after all, you witnessed the entire working process and you well know which criteria I fol-

lowed (or rather, to be frank, which ‘absolute lack of criteria’). If any, you can highlight this peculiarity: the piece was completely improvised; you can mention as well that the title, which I think fits pretty well, was found once the composition had already been finished. For the rest, say what you think is best, you will easily find resonant and reverberated words, such as «sonic essentiality», «rarefied timbre», «opposed planes» etc., a set of phrases that has worked indifferently from Webern on.

I especially suggest: «double-reversed-wedge construction, with highest density at the centre and initial and final rarefactions». One curious detail, as journalists say, is that eventually Marino [Zuccheri] and I only used the reverberation and even eliminated the original sound source; we’re magicians, aren’t we?⁹²

Despite his initial scepticism and a certain polemic undertone, Marinuzzi eventually accepted to write a presentation of *Traiettorie*, which is useful in outlining some aspects of his compositional poetics. After articulating in detail the type of procedures and devices employed, the last sentence recoups the core of the above-mentioned letter:

As for my working method, I preferred to proceed in such a way as to complete each section of the composition by ‘inventing’, so to say, each new phase after the previous was finished, on the basis of what I had already done; I had not pre-conceived any schema, not even an indicative one, nor did I use any system of notation. Therefore, the limits of the electronic means notwithstanding, this piece has rather the character of an ‘improvviso’⁹³.

If this emphasis given to improvisation can certainly be attributed to the tight schedules Marinuzzi was used to in film music production, it cannot be written off as a professional idiosyncrasy. Here, improvisation must not be understood with any references to jazz or contemporary Alea, but rather as a way to focus on the absence of rigid formal underpinnings and linguistic bonds, and pinpoint the composer’s subjective drive. After all, Marinuzzi’s symphonic production explicitly inscribes itself in the

⁹² «Di’ tu quello che vuoi, tanto più che hai assistito a tutta la lavorazione e sai quali criteri ho seguito (anzi per dire la verità quale ‘assoluta mancanza di criteri’). Il pezzo è stato del tutto improvvisato e se mai si può sottolineare questa particolarità, come pure può essere segnalato che il titolo, che del resto mi pare abbastanza aderente, è stato trovato a composizione ultimata. Per il resto di’ quello che credi meglio, potrai facilmente trovare parole risonanti e riverberate come “essenzialità sonora” “timbrica rarefatta” “piani contrapposti” ecc., frasario che da Webern in poi va sempre bene. / Ti consiglio in modo particolare: “costruzione a doppio cuneo rovesciato, con massimo addensamento al centro e rarefazioni iniziali e finali”. Particolare curioso, come dicono i giornalisti: alla fine Marino ed io abbiamo usato la sola riverberazione eliminando addirittura la sorgente sonora originale; che maghi!» (G. Marinuzzi Jr, Letter to Renzo Dall’Oglio, 26 March 1961, ASFM, «Corrispondenza – 1961»).

⁹³ «Per quanto riguarda il metodo di lavoro ho preferito procedere in maniera da completare in ogni sua parte la composizione, man mano che essa veniva realizzata, ‘Inventando’, per così dire, le parti successive sulla base di quanto era già stato fatto; non ho predisposto alcuno schema, neppure a carattere indicativo e non ho usato alcun sistema di notazione. Pertanto, nei limiti consentiti dal mezzo elettronico, si può dire che questo pezzo abbia il carattere di un ‘Improvviso’» (G. Marinuzzi Jr, *Traiettorie*, typewritten program note for the radio broadcast in the series *Musica sperimentale*, 3rd episode, 12/1/1962, ASFM, 4 pp.; the document is entirely transcribed, in a slightly different version, in L. Zaccone, *Gino Marinuzzi jr. e l’elettronica*, cit., pp. 126-127: 127).

tradition of western art genres such as the toccata, the fantasia, the divertissement and the impromptu, as is evident in his choice of titles: *Divertimento su un tema popolare* (1943), *Fantasia quasi passacaglia* (1952) and, most of all, *Due improvvisi* (1961), the piece that represents the symphonic counterpart to *Traiettorie*. In *Due improvvisi*, Marinuzzi created a progressive and «free language, freely atonal, not serial, hence not Schönbergian»⁹⁴. In occasion of the piece's première, which was radio-broadcast on 11 March 1961 and performed by the Orchestra Sinfonica di Roma della Rai conducted by Ettore Gracis, Laura Padellaro appropriately noted that

Improvisation means here a free creative impulse, sustained by a refined instrumentation: the choice of timbres, always original and sharp, and the iridescence of the sound, faded in subtle tones, demonstrate that the freedom of his compositional technique is coupled by a total accuracy in orchestration, glaringly influenced by his electronic experiences⁹⁵.

Due improvvisi ratifies the creative triangle between electronic research, 'applied' music and concert composition; the way in which procedures are structurally borrowed does not materialise into a hierarchic directionality, but rather exhibits the coexistence of each plane. In other words, electronic production for films was a congenial way to explore his conception of the creative act, based on the extemporaneous reaction to the needs of the moment. Moreover, the fact that electronics and tape music allowed notational systems to be overcome places Marinuzzi in an isolated position with respect to his colleagues in Milan. His refusal of notation was elevated to an attempt to liberate composition from the mediation of pre-planning. The Fonosynth's resemblance to a musical instrument, able to respond to the composer's extemporaneous demands, can be thus interpreted as a crucial step towards the realisation of these propositions.

Although the Fonosynth cannot be considered as an instrument destined to performance, [Marinuzzi's] need for 'playability' and immediacy imposed an intuitive modality of control over the time variance of parameters; from this stemmed the conception of a controller such as the keyboard (a matrix of 24x6 rectangular platens) capable of guaranteeing a certain degree of coherence between the experience of the musical gestures and a typology of sounds which were almost always belonging to the domain of tone continuum and microtonality. In order to avoid anachronisms and misunderstandings, it is better to highlight that the Fonosynth's keyboard did not control anything more than the generators connected to it, probably square wave oscillators. It was

⁹⁴ «con i *Due improvvisi* scelsi un linguaggio più libero, liberamente atonale, non seriale, quindi non schonbergiano. E nemmeno aleatorio, però: a mio parere il compositore deve essere responsabile di ogni nota» (G. Marinuzzi Jr, interviewed in L. Ketoff, *Le note secondo Marinuzzi*, «La Repubblica», [unidentified issue], 1988, clipping, GMC).

⁹⁵ «Improvvisazione significa qui libero slancio inventivo che però si sorregge a [sic] una strumentazione affinata: e la scelta dei timbri, sempre originale e scaltrita, l'iridescenza del suono sfumato in sottilissimi toni, dimostrano che alla libertà della tecnica compositiva si contrappone il pieno rigore di quella strumentale, palesemente influenzata dall'esperienza elettronica» (L. Padellaro, *Tre novità presentate da Ettore Gracis*, «Radiocorriere», 38, 10, 5-11 March 1961, p. 4).

not a voltage control applicable to any stage of the sound signal. In other words, it was not possible to freely decide to which generators or filters to apply the control signal coming from the keyboard. Nonetheless, the conception and the design of the keyboard exhibit an attentive reflection on the topics of control interface and affordance⁹⁶.

Pizzaleo's acute observations find an indirect confirmation in Strini's recollection of a tentative instrument that Marinuzzi had devised, which clearly reveals the composer's instrumental approach to electronics:

Marinuzzi had made a sort of electronic accordion, whose keys were as similar as possible to an accordion's keyboard. Each key was matched to an oscillator with a knob through which he could adjust the frequency with a screwdriver, an operation that had to be made every four or five days⁹⁷.

This performing attitude towards electronic music draws a connection between Marinuzzi and the American composers who influenced the invention of the Synket, the smaller synthesizer constructed by Ketoff immediately after the Fonosynth (1964-67)⁹⁸.

A second aspect brought to the fore by *Due improvvisi* is the importance of electronic research in enhancing orchestration techniques, timbral texturing and modular thinking. In a late interview, Marinuzzi himself openly admitted that electronics «influenced my way of orchestrating. Sometimes I try to accomplish sounds and effects which are proper to electronic music through the orchestra»⁹⁹. Examples of this permeability in writing can be found in the second movement of the composition¹⁰⁰, but it is above all in his film music that this aspect stands out. Fig. 7 shows an excerpt of cue *N. 3* from *Terrore nello spazio*, in which *ostinati* of the flute and the viola behave like looped figures over which violins design a high-pitched cluster that, merged with the sustained

⁹⁶ «Benché il Fonosynth non possa essere considerato uno strumento destinato alla performance, il bisogno di rapidità esecutiva e immediatezza di risultati imponeva una modalità intuitiva di controllo della tempo-varianza dei parametri; di qui l'ideazione di un controller come la tastiera (una matrice di 24x6 lamine rettangolari) in grado di assicurare un certo grado di coerenza tra l'esperienza del gesto esecutivo e una tipologia di suoni quasi sempre collocati nel dominio del continuo e della microtonalità. Al fine di sgombrare il campo da anacronismi e fraintendimenti, è bene sottolineare che la tastiera del Fonosynth non controlla altro che i generatori ad essa direttamente collegati, probabilmente i generatori di onde quadre. Non si tratta di controllo in voltaggio applicabile a qualunque stadio del percorso del segnale; in altri termini, non era possibile decidere liberamente a quali generatori o filtri applicare il segnale di controllo proveniente dalla tastiera. Tuttavia, la concezione e il design della tastiera del Fonosynth denunciano una riflessione attenta sul tema dell'interfaccia di controllo e dell'*affordance*» (L. Pizzaleo, *Il liutaio elettronico*, cit., p. 36).

⁹⁷ «Marinuzzi poi aveva fatto una specie di fisarmonica elettronica che aveva dei tasti, i più simili possibili alla tastiera di una fisarmonica e a ogni tasto corrispondeva un oscillatore con un potenziometro con cui si regolava la frequenza; allora andava lì con il cacciavite ad aggiustare la frequenza, operazione che doveva essere fatta ogni quattro o cinque giorni» (G. Strini, personal communication [07/12]).

⁹⁸ Concerning the ideation of the Synket, see M. Corbella, *Paolo Ketoff e le radici cinematografiche*, cit. and L. Pizzaleo, *Il liutaio elettronico*, cit., pp. 39-59.

⁹⁹ See footnote 113 for the Italian transcription of the entire passage.

¹⁰⁰ The two movements are respectively named *Preludio* and *Richiamo*.

The image shows a page of handwritten musical notation for the piece "Terroro nello spazio, N. 3". The score is written on multiple staves, with various musical notations including notes, rests, and dynamic markings. The page is numbered "127" in the top right corner. The score is divided into two systems, with a circled "2" at the beginning of the first system and a circled "4" at the beginning of the second system. The staves are labeled with instrument abbreviations: "8" (likely Flute), "F" (Flute), "C" (Clarinet), "A" (Alto Saxophone), "T" (Trumpet), "B" (Baritone), "4" (likely Trombone), "T" (Trumpet), "T" (Trumpet), "T" (Trumpet), and "Cb" (Cello/Double Bass). The notation includes various note values, rests, and dynamic markings such as "p" (piano) and "f" (forte). The page is published by GMC, as indicated by the logo and the text "1988 EXTRA" at the bottom.

Fig. 7 *Terroro nello spazio*, N. 3 (p. [3], bars 9-12), handwritten score, GMC.

cymbals («B.» stands for «batteria», i.e. drums), resembles a mixture of sinusoids in inharmonic relation; finally, the short phrases by plucked double-basses, harp and vibraphone recall the punctuation figures in the electronic cues previously analysed.

A synthesis of these apparently centrifugal tendencies can be found in the work that best created a fusion of electronic and orchestral means in the composer's entire production, and represents his most ambitious authorial project: *La signora Paulatim*, a radio opera broadcast in 1965 and adapted for the stage in 1966 at the Autunno Musicale di Napoli under the stage direction of Filippo Crivelli. One of the two opening remarks of this essay presented Di Benedetto's criticism on this radio work in an isolated way. It would not however be fair to omit that Di Benedetto fully realised that the apparent absence of the composer's personality was consistent with the nonsensical undertone of the plot based on the homonymous short story by Italo Calvino¹⁰¹, in which the two bourgeois protagonists, *la signora Paulatim* and *il commendator Paulatim* are empty simulacra acting mechanically and surrounded by the alienated workers of their pharmaceuticals factory. The 'bi-dimensionality' of the music is in other words coherent with that of the characters.

By renouncing its autonomy, [the music] deliberately embraces the falsity of the story, underpinning its profiles and contours, mirroring its fundamental inauthenticity. [...] What remains, then, from this general mystification? The answer is precisely in the absence of the musician (whose traces we can however grasp at least once: in the instrumental *intermezzo* [...]); a piece that is rich in authentic musical substance, solidly constructed on a ground bass in the guise of a passacaglia, over which the wind instruments elaborate elegant and aerial counterpoints), in the declared, smiling falsity of the music. Absence and emptiness imply in themselves a presence, albeit an immaterial one that cannot be grasped¹⁰².

We could speak of 'applied' music if *La signora Paulatim* were a piece in which the composer offered his work to a pre-existing dramaturgy. But this was not the case: the entire project was conceived by Marinuzzi and thus the music is but one of the components of the work¹⁰³; we learn from handwritten notes on the score that slides and

¹⁰¹ I. Calvino, *La signora Paulatim* (1958), in Id., *Racconti*, Vol. 1, Milano, Mondadori 1993, pp. 217-225.

¹⁰² «Rinunciando ad ogni valore autonomo, [la musica] ha assunto deliberatamente la falsità della vicenda, ricalcandone le sembianze e i contorni, riflettendone la fondamentale non-autenticità. [...] Che cosa rimane, allora, di questa generale mistificazione? La risposta è proprio nell'assenza del musicista (del quale però almeno una volta indoviniamo i lineamenti: nell'intermezzo strumentale [...]); un pezzo ricco di autentica sostanza musicale, solidamente costruito su un ostinato di bassi a modo di passacaglia, sul quale gli strumenti a fiato svolgono eleganti, aerei contrappunti), nella dichiarata, sorridente falsità della musica. L'assenza, il vuoto, postulano di per se stessi una presenza, ma immateriale e inafferrabile» (R. Di Benedetto, *La signora Paulatim di Gino Marinuzzi Jr*, cit.).

¹⁰³ As early as 1961, Marinuzzi had started to work with Calvino on another radioplay, based on his short story *Luna e Gnac*, of which a manuscript score, a script by Calvino (together with two letters) and a home recording (with Marinuzzi playing the piano and overdubbing all the characters' sang parts) survive (ZMar 032, FMN, Milano).

film footage were projected on stage for the theatre reprise directed by Filippo Crivelli. The latter retains a vivid memory of how he himself prepared the slides by taking photos of a pharmaceutical company in Milan, in addition to which he commissioned a film to accompany various scenes of the opera¹⁰⁴. Unfortunately, neither the slides nor the film have surfaced thus far, but the director's notes preserved in Crivelli's archive provide extensive descriptions of how each visual aid was 'synchronised' to the music¹⁰⁵. I purposely stretch the term 'synchronising' when referring to the high number of timing notes that are present both in the score and in the director's notes. We could almost speak of an 'upside-down' synchronisation, in which, contrarily to what happens in film post-production studios, video and lighting¹⁰⁶ apparatuses tightly match the unfolding of the music score.

Fig. 8 offers a detail of the finale, by crossing an excerpt of the score (8a) with the corresponding part in the director's notes (8b). The finale is set up on a similitude between the liberation of tropical birds from Paulatim's aviary and the flow of workers leaving the factory:

The flock flies above a flow of motorcycles, but goes in the same direction; above the grey and black workers, that multi-coloured cloud of birds is like a song without words that the workers don't know they are singing¹⁰⁷.

The electronic sound effects that sonorize the first part of the scene (Fig. 8a) give way to the orchestra, which 'gives voice to' the «song without words» of the workers. To visually render the dialectic between the birds and the workers, coloured and black and white video footages are alternated (Fig. 8b). This sequence perfectly clarifies how, in Marinuzzi's dramaturgy, the music was never conceived to stand autonomously, but always as part of a multimedia discourse in which all elements (voice, electronic and orchestral resources, video, lighting and narratives) are tightly interwoven.

2.5 *The gradual retirement (1967-71)*

Due improvvisi and *Traiettorie* marked Marinuzzi's abrupt and subtly polemic retirement from the field of 'absolute' music in 1961. For the rest of the decade, he continued to work in the fields of television, radio and cinema. From 1965 to 1967, the Fonosynth and probably other equipment were hosted at NIS Film with Ketoff, until the two friends converged to the Studio R7, bringing their electronic machiner-

¹⁰⁴ F. Crivelli, personal communication (10/14).

¹⁰⁵ F. Crivelli, typewritten notes with handwritten annotations, «Materiali – *La signora Paulatim* 1966», 4 pp., FFC.

¹⁰⁶ Several indications about lightning are disseminated in the score as handwritten notes.

¹⁰⁷ «Lo stormo degli uccelli sorvola quello delle biciclette a motore, ma va nella stessa direzione; sopra gli operai grigi e neri, quella nuvola di uccelli d'ogni colore è come un canto senza parola che gli operai non sanno di cantare» (*La signora Paulatim*, speaker's part, printed score, pp. 171-173, GMC).

RECITANTE (mentre la musica va su di tono, sempre più aerea e spie-
gata): Vola fuori lo stormo multicolore dei fagiani argentati, dei
 ralli acquatici, dei pappagallini assurri. Sale in cielo, compatto.
 I ragazzi sparano.

(Detonazioni lontane, quasi armoniose)

RECITANTE: Lo stormo si allarga, ma nessun uccello cade, solo qual-
 che penna variopinta cala giù ondeggiando.

(Ululo di sirena)

RECITANTE: Suonano le sirene di mezzogiorno. Dall'uscita del perso-
 nale della "Farmaceutica Paulatin S.A." sfocia una folla di biciolet-
 te,...

(Stacco di motori e motorini che si allarga,
 si espande)

RECITANTE: ... di motocicli, di motorette, che prende a correre in uno
 stormo largo e compatto.

→

a)

45

Gli uccelli stanno un momento fermi, senza spiccare. Vola fuori lo stormo multicolore dei fagiani argentati, dei ralli acquatici, dei pappagallini assurri. Sale in cielo compatto, i ragazzi sparano. (filmato in bianco e nero; contro il cielo uccelli volano - alberi)

Suonano le sirene di mezzogiorno. Dall'uscita del personale della "Farmaceutica Paulatin S. A." sfocia una folla di biciclette, di motocicli, di motorette, che prende a correre in uno stormo largo e compatto. (filmato in bianco e nero; uscita da una fabbrica, atrio e cortile PAULATIN, primi piani operai, file di biciclette, ancora primi piani di operai)

(Info la scena)

Lo stormo degli uccelli si allarga, ma nessuna cade, solo qualche penna variopinta cala giù ondeggiando. (filmato in bianco e nero; un operaio guarda il cielo, cielo con uccelli che volano, cielo grigio pulito che in dissolvenza diventa assurro. Caduta di piume di diverso colore (filmato a colori). Stacco su file di biciclette e motorette (filmato in bianco e nero).

Gli uccelli vanno nella stessa direzione degli operai: sopra gli operai grigi e neri, quella nuvola di uccelli d'ogni colore è come un canto senza parola che gli operai non sanno di cantare. (filmato a colori: le piume diventano un groviglio di colori. Dissolvenza di colori quasi in giochi prismatici)

1.30" + colori 1.30"

cedute finire
 Vere 25"

b)

Fig. 8 (a) Detail of the sheet inserted in the score of *La signora Paulatin*, between pp. 170-171, GMC; (b) Detail of director's notes, [p. 4], FFC.

ies with them to Piazza Cinque Giornate. As Pizzaleo has exhaustively showed, the project of a Studio capable of hosting the experimental activity of five composers and two technicians relying on commercial engagements with the media, fell through over the space of three years (1967-69), despite the commitment of three new associates in 1969 – namely Ennio Morricone, Fiorenzo Carpi, and Bruno Nicolai – that could potentially have raised the Studio's profile in the field of film music. A memorandum of the Studio R7, preserved at the Archivio Guaccero and transcribed by Pizzaleo, reveals that by that year,

Marinuzzi, Ketoff, Evangelisti and to a certain extent Guiducci have lost interest in the life and the activity of the Studio. Marinuzzi works with his own equipment (and has always been saying that he wanted to leave) [...] ¹⁰⁸.

After supplying the (partially electronic) music for *Jekyll*, a 4-episode TV series directed by Giorgio Albertazzi that competed in the Prix Italia 1969¹⁰⁹, Marinuzzi moved his equipment to the Sermi Film¹¹⁰, where he prepared other soundtracks for television¹¹¹ and realised three compilation records in which electronic tracks from his previous films were reshaped in the new emerging style of 'underground' stock music. The genre of stock music, also known as library or production music, was launched in Italy around 1968, mainly under the name «musica per sonorizzazioni», as a joint venture by film music editors and independent record companies. As owners of the rights to film music soundtracks, editors such as Bixio, Sermi, Gemelli and others, started re-releasing cues from different films and grouping them into compilations, which were launched on the market with suggestive titles; meanwhile, independent record companies such as Flipper Music started buying music catalogues from abroad and commissioned new stock music to Italian musicians. Electronic, 'lounge' and 'atmospheric' pieces were naturally privileged. Sometimes film composers were directly involved in composing new pieces or reworking old ones. Some of them even started their own stock music labels, such as Piero Umiliani with his Sound Work Shop studio. Marinuzzi's compilations with Sermi were: *Muraglie di ghiaccio – Figure geometriche* (LP, Sermi SP 111 1968), *Rhythms in Suspense* (LP, Sermi SP 124 1969¹¹²), which mainly revisits cues from *Jekyll*, and *Musica ed elettronica* (LP, Sermi SP 131 [1971]), an anthology of Marinuzzi's electronic cues, including rearranged tracks from

¹⁰⁸ «Marinuzzi, Ketoff, Evangelisti e in una certa misura Guiducci hanno perso interesse per la vita e l'attività dello Studio. Marinuzzi perché lavora a parte alla sua apparecchiatura (e ha sempre detto di volere andarsene) [...]» (L. Pizzaleo, *Musica elettroacustica a Roma*, cit., p. 150).

¹⁰⁹ From «Radiocorriere», 46, 18, 4-10 maggio 1969, p. 43, we learn that Albertazzi re-edited the four episodes to fit into a 2-hour film to be presented at the Prix Italia. In that edition, the award was won by Gino Negri's *La fine del mondo* (G. Bettetini).

¹¹⁰ See L. Pizzaleo, *Musica elettroacustica a Roma*, cit., pp. 51fn, 84.

¹¹¹ *Il brigante* (V. Zaganelli 1969); *Sopralluogo filmati per una lettura dei racconti malesi di J. Conrad* (2 episodes, G. Moser 1970); *All'arrembaggio, tigrotti di Mompracen – Appunti durante un viaggio in Borneo alla ricerca di Emilio Salgari* (G. Moser 1971).

¹¹² Reissued on CD by Cometa Edizioni Musicali CMT 10040 2013.

Antigone and *Terrore nello spazio* and original pieces which reutilise older tape materials and newly written acoustic parts.

Marinuzzi last two retrieved films are collaborations with Nino Rota, namely *Hi wa shizumi, hi wa noboru* (*Sunset, Sunrise*, K. Kurahara 1973) and *Alle origini della mafia* (*The Origins of Mafia*, E. Muzii 1976).

In 1988, he returned to concert music after 27 years, composing *Concertante* for piano and orchestra, a piece commissioned by the Orchestra Sinfonica di Roma della RAI, at the time under Gioacchino Lanza Tomasi's artistic direction. On this occasion, in an interview with his lifelong fellow's wife, Landa Ketoff, he bitterly expressed his retrospective thought on the avant-garde. Asked about the reasons for which he retired from the music scene, he answered:

A climate of musical terrorism had come into being. Those who didn't compose following a certain school were practically banned and derided, without possibilities of finding a space. It was normal to go on with systems and formulas. A perfectly constructed, or sometimes only provocative music: the right music for the technological era in which we live, they used to say. But it wasn't right to me: that music communicated nothing, it didn't provoke emotions of any kind. [...] I don't deny that I myself had believed in a 'technological' music, and that I too was fascinated by electronic music. Although I soon realised it was a dead end, this experience was important to me: for instance, it influenced my way of orchestrating. Sometimes I try to accomplish sounds and effects that are proper to electronic music through the orchestra. The biggest mistake of those years, however, was not so much experimenting but the will to put a drastic end to the tonal system, generating absurd taboos and destroying all spontaneity, all freedom of invention. Even the great composers of the past used forms (not formulas), but with the highest freedom and with innumerable exceptions¹¹³.

In a rather cryptic manuscript, undated but probably dating to the 1980s, we discover a surprising sympathy for the Italian Neoromantic movement, under the form of a tentative manifesto in which, yet again, the idea of the primary role of the composer's expressive freedom is stressed¹¹⁴:

¹¹³ «Era venuto a crearsi un clima di terrorismo musicale. Chi non componeva secondo una certa scuola era praticamente messo al bando, era deriso, non trovava spazi. Si andava con sistemi, formule. Musica perfettamente costruita, oppure soltanto provocatoria: la musica giusta per l'era tecnologica in cui viviamo, si diceva. Ma a me non stava bene; era musica che non comunicava nulla, non dava emozioni di sorta [...] Non nego di aver creduto anch'io a una musica 'tecnologica', di essere stato affascinato dalla musica elettronica. Sebbene abbia presto capito che era una strada senza sbocchi, è un'esperienza che ha influenzato il mio modo di orchestrare. A volte cerco di raggiungere con l'orchestra, suoni, effetti, propri degli strumenti elettronici. L'errore maggiore di quegli anni, però, non furono tanto le sperimentazioni quanto l'aver voluto far finire in modo drastico il sistema tonale, creando assurdi tabù e distruggendo ogni spontaneità, ogni libertà di invenzione. Anche i grandi del passato usavano forme (non formule), ma nella massima libertà, con innumerevoli eccezioni» (G. Marinuzzi Jr interviewed in L. Ketoff, *Le note secondo Marinuzzi*, cit.).

¹¹⁴ The main founder of the Italian Neoromantic movement, Marco Tutino (b. 1959), assured me that Marinuzzi never got in touch with the movement, although the possibility remains that he was linked to some composers in Rome who sympathised with the movement (perhaps one of his students?). M. Tutino, personal communication (09/14).

There is no law other than the one that links two or more sounds in a determinate way and responds only to the expressive necessity of the author *in that given moment*. Those links will never become a fixed rule for others¹¹⁵.

Did Marinuzzi foresee in the ‘Neoromantic generation’ the possibility of overtaking the ideological impasse of the avant-garde? «[Today] there is more tolerance», he indirectly answered,

thanks among other things to the new generations of composers who rebelled against their teachers and want to take advantage of all the experiences of the past. This is why I accepted the proposal of the RAI to couple an old composition [*Due improvvisi*] with a new one. It is almost a challenge, with no pretensions of stating anything definitive, I am already satisfied to be able to express this freedom¹¹⁶.

Pianist Andrea Padova, Marinuzzi’s former pupil who premiered *Concertante* in 1988 and spent several hours talking with his teacher about his self-isolation from the music scene, has pointed-out a further reason of Marinuzzi’s uneasiness, namely the «profound dyscrasia he felt between composing for the concert hall and for cinema and television»¹¹⁷. After having struggled all his life with the paradigm of autonomy, Marinuzzi would leave to coming generations his unsolved dilemma as a composer for the media.

¹¹⁵ «Non vi è legge all’infuori di quella che unisce due o più suoni in una determinata maniera rispondente solo alla necessità di espressione dell’autore *in quel dato momento*. Tali unioni non diverranno mai una regola fissa sfruttabile da chiunque» (G. Marinuzzi Jr, *Alcuni punti di vista su di un possibile movimento Neo Romantico*, undated, typewritten manuscript, GMC; emphasis in the original).

¹¹⁶ «C’è maggior libertà, maggior tolleranza, imposte anche dalle nuove leve di compositori che si sono ribellati ai maestri e intendono profittare delle esperienze, di tutte le esperienze del passato, senza tabù. È per questo che ho accettato la proposta della RAI di accostare un mio vecchio lavoro a un’opera nuova. È quasi una sfida. Senza alcuna pretesa di dire alcunché di definitivo, ma già soddisfatto del solo potermi esprimere in libertà» (G. Marinuzzi Jr interviewed in L. Ketoff, *Le note secondo Marinuzzi*, cit.).

¹¹⁷ I am quoting a passage from an unpublished concert note that Padova wrote for one of his performances of *Concertante* and that he kindly forwarded to me.