In the course of the last century, the rise and evolution of sound reproduction techniques radically changed the relationship between humans and music. Music has come to be a constant presence in our everyday life: we come across it on the radio, on TV, on CD or a computer, at home, in shops, at the station, in waiting rooms, restaurants, and anywhere possible, that is, everywhere. This is a radical change if one considers that, until the end of the 19th century, the only way to listen to, and enjoy, music was to perform it live. All this has changed the evolution of musical language. While sound reproduction techniques have been exploited by the industrial sector, mainly for commercial purposes, on the other hand composers have seen in these new media an opportunity to carry out research and unprecedented experiments in music. Immediately after WWII, in Europe, several study centres for electronic music were opened, in which composers were able to learn sound processing techniques, and set out to create new types of music works and entertainment.

This article aims at providing a possible educational path based on Ritratto di città (Portrait of a City), one of the first Italian compositions in the 1950s to be created using the new technologies.

A “portrait” of Milan

Ritratto di città is a radio composition created in 1955 by Luciano Berio, Bruno Maderna, and Roberto Leydi. As can be inferred from the title, it aims at “depicting” a series of moments (dawn, evening, night), places (the Duomo, the station, the Navigli channels), or simple actions (such as an accountant’s tiring, repetitive work) in a typical Milan day in the 1950s. The composition expresses this by combining two levels: the verbal, i.e. the text by Leydi, recited...
by the voices of actors Nando Gazzolo and Ottavio Fanfani, and the musical level, consisting of various acoustic events (sounds, noises, short music pieces) selected, processed, or created from scratch by Berio and Maderna.

*Ritratto di città* is one of the first Italian experiments in the fields of musique concrète and electronic music – the former is based on the processing of ambient sounds and noises on magnetic tape; the latter relies on synthesized material, that is, sounds that are artificially produced by electronic devices. The earliest experiments in musique concrète were carried out by Pierre Schaeffer in 1948, in a studio of the French radio and television company RTF; experiments in electronic music first started in WDR’s *Studio für Elektronische Musik* in Cologne, founded in 1951 by Herbert Eimert at the German radio WDR (*Westdeutscher Rundfunk*). The distinction between these two types of music was especially relevant in the earliest years of activity of these radio studios. However, genre barriers were soon overcome in the name of a fertile syncretism.

Berio, Maderna and Leydi created *Ritratto di città* thanks to the devices of a radio studio of RAI in Milan. The piece’s subtitle, *Studio per una rappresentazione radiofonica* (Study for a radio performance), contains a hint at the experimental nature of the composition. Following this first attempt, Berio and Maderna were given the green light by the management of RAI Milan to open the Studio di Fonologia Musicale, which was to become one the foremost European centres for experimental music aided by electronic devices.

During the post-war reconstruction years, Milan was the leading city in the country’s political and cultural renaissance. It was precisely in the domain of music that the Lombard capital, more than other Italian cities, showed curiosity and interest for the innovations of the European avant-garde movements. Many associations were founded («Esacordo» and «Diapason» among the best known), with the aim of educating the public’s taste for music genres that were still relatively unknown. Roberto Leydi, 25 years old at the time, collaborated with the most important specialized periodicals and promoted events about learned contemporary, jazz and popular music. Berio and Maderna, who, despite their very young age, could already boast several experiences in Europe and beyond (Berio had studied in the United States, and both had attended summer courses in Darmstadt), met in Milan. What they had in common was that they both intended to spread the music culture of their time.


4 For an in-depth analysis of the collaboration between Berio and Maderna, and their activity on the Milan cultural scene see, besides the above mentioned study by De Benedictis, the books *Bruno Maderna. Studi e testimonianze*, ed. by R. Dalmonte and
città, a product of this rich cultural climate, could almost be seen as a tribute to a city that was regarded as a role model in literature, the arts, and music.

Both levels of the composition, verbal and musical, were developed at different stages: while Leydi wrote down the story, the two composers, who had been given general directions about the places and actions included in the description, prepared the sound material in their studio. Leydi’s verbal text, the scheme of the sound-music sequences prepared by Berio and Maderna, and the CD containing the recording of the radio program, a property of RAI, are now available as part of the book *Nuova musica alla radio* by Rizzardi and De Benedictis.\(^5\) *Ritratto di città* comprises 19 small parts which, by analogy with film terminology, could be termed ‘sequences’, i.e. self-containing units – marked by numbers in square brackets in the reproduction of the verbal text.\(^6\)

**Introduction to the educational path**

What follows is a possible educational path, addressed to a middle-school class, and comprising three activities: the primary goal is to explain to the students the notions of musique concrète and electronic music as they were understood at the time of Berio and Maderna (activity 1); we will then focus on the analysis of Leydi’s poem (activity 2), and of the general structure of the work, going into some of its parts (activity 3). With the help of these three activities we aim at making students aware of how the introduction of sound reproduction techniques not only fostered the rise and growth of the record market, but also boosted the development of new research and experimentation in the field of musical composition. The wide range of possibilities for variation and elaboration of sound material, introduced in the 1940s with the spread of new, sophisticated technological devices, greatly helped change (even revolutionize) the idea of music work that had prevailed until then.

Through an analysis of the general structure of the work, and of some of its individual parts, we also aim at making the class aware of the strong imaginative power of sound. Music is actually able to contribute to the understanding and ‘visual translation’ of the places and actions described by the narrators in the radio work.

**Activity 1 – Musique concrète and electronic music**

In order to make students understand the notions of musique concrète and electronic music, as they were intended at the time of *Ritratto di città*, it can

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\(^6\) *Nuova musica alla radio* cit., pp. 328-339.
be helpful to listen to two sequences that exemplify both typologies, respectively no. 4 and no. 5.

First we listen to no. 4, and subsequently ask students to describe the sounds and noises they have recognized. The narrator’s voice is underpinned by engine, hammer strikes, and hoop noises, etc., alternating or layered. Between the words «sogni» (dreams) and «vuoto» (empty) the narrator falls silent as noises chase each other, overlapping frenziedly, as if they were trying hard to form a definite rhythmic sequence. We will then explain that the peculiarity of musique concrète lies primarily in the material it uses, i.e. ‘concrete’, real noises from the urban environment. These are recorded, transformed and processed on tape, and finally ‘combined’ to obtain a specific effect.

We continue our listening with sequence no. 5, asking students to focus on identifying possible similarities or differences with the previous sequence. Unlike no. 4, in no. 5 sounds are not captured from the environment, but produced artificially by electronic devices.

The difference between musique concrète and electronic music, therefore, lies both in the material and in the processing tools used: in the first case, noises are ‘caught’ from the surroundings, and then transformed and processed through a magnetic tape recorder; in the second, sounds are created from scratch by means of sound synthesising equipment, i.e. sound wave generators. Through this activity, teachers can make the class understand the richer variety of compositional techniques that began to be possible thanks to the new means of reproduction. While in the past, in the Western world, the term ‘music’ described a composition written to be performed by musical instruments or the human voice, from this moment on the term greatly extended its semantic spectrum – so that the whole sound world that surrounds us, from the sounds and noises of nature to those produced by technique, can be recorded, isolated and combined in an ‘expressive’ way, to build a new musical ‘work’.

Activity 2 – The poem

The poem by Leydi narrates a typical day in Milan, from the early morning hours until late at night. Broadly speaking, sequences 1 to 3 cover the morning, 4-11 the daytime, 12-14 the evening, 15-19 the night. The story opens and closes with a reference to “silence” as the indispensable precondition for an attentive, successful listening.

The following is the text of the first sequence:

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7 For this almost documentary-like way of narrating, Leydi took inspiration from British models of radio art such as Under Milk Wood by Dylan Thomas (1953), which, for example, represents the unfolding of a 24-hour day in a fishermen’s village. See De Benedictis, Radiodramma e arte radiofonica cit., pp. 203-207.
È molto difficile spiegare come succeda e perché succeda. È anche molto difficile sorprenderlo, scoprirlo. Parlo naturalmente di quel minuto, o di quell’ora, o di quel secondo, non importa, in cui a ogni nuovo risveglio di mattino la città si ritrova tutta, improvvisamente e con sorpresa, coperta dal silenzio. I grandi portoni scuri delle case popolari e della pensione compiacente si sono appena chiusi, già quasi senza rumore, dietro la bicicletta assonnata dell’ultima guardia notturna. Allora, sulle strade miracolosamente deserte della città addormentata, scende l’attesa.

[It is really hard to explain how it happens, and why. It is just as hard to capture, to find. Of course I am talking about that particular minute, or hour, or second (no matter how long) of every new morning awakening, when the town finds itself, suddenly and unexpectedly, covered with silence. The large dark gates of public housing complexes, and of sleazy boarding houses, have just closed, almost without a noise, behind the sleepy bicycle of the last night watch. Then, on the miraculously desert streets of the sleeping town, the waiting descends].

Leydi pauses on the silence, in which the town is immersed at the first light of morning. Only those who pay enough attention, who look inside and outside themselves, can marvel at «that particular minute, hour, or second» in which the city, usually wrapped in a chaos of dazzling sounds, finds itself mysteriously «covered with silence». The «silence» of dawn becomes the «waiting» for sound, that is, for the reawakening of life. In his ‘description’, Leydi offers glimpses of the city or narrates moments of everyday life, using surreal imagery, metaphors, phantasmagorias and bizarre associations verging on nonsense: from the «galli grotteschi sottili come sogliole e traforati a fantastici disegni» (grotesque cockerels, thin like sole fish and decorated with open-work fancy patterns) to the «marcite coperte di zanzari» (musty blankets of mosquito swarms); from «i crateri assurdi delle cave di sabbia» (the absurd craters of sand caves) to the «insegne di perduto sapore» (signs with lost flavours). Synesthetic associations are also frequent, as in «verdi strutture sonore» (green sound structures) or «ombre nere, umide, opache» (black, damp, matte shadows), and in the juxtaposition of words pertaining to the visual («green», «black», «matte») and acoustic domains, in the first case («sonore»), or the sphere of touch, in the second («damp»).

At times the piece almost seems to try to materialize silence and sound, as if they were concrete objects: «Suoni dementi d’organo giocano senza scopo fra le nere colonne del tempio» (demented organ sounds play aimlessly among the black columns of the temple), or «Lassù; oltre i tetti di questi edifici solenni e immensi come cattedrali, corrono infatti marciapiedi invisibili di suoni rarefatti di campane» (Up high; above the rooftops of these solemn, huge, cathedral-like buildings, there run invisible sidewalks of rarefied bell sounds).

The language is also interspersed with metaphors – just think of the globes of bedside lamps that ‘soften’, like balloons which, when deflated, ‘have a lamentable appearance, like tubercular raisins’. All these strategies seem aimed

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8 Nuova musica alla radio cit., p. 329.
at activating a mechanism of visual translation in the listener, a development of imaginative abilities, starting from listening.

The text closes the circle, coming back to the theme of silence, this time at night; yet while at the beginning the deafening «esaltato clamore» (exalted clamour) is ‘ushered in’ by the silence of the morning, at the end of the piece the silence of the night is ‘ushered in’ by «folli passaggi di automobili veloci» (the crazy rush of fast cars).

In sequence 14, the train station is depicted as both gloomy and redolent of ‘memory’. Here, in the middle of the night, one can hear «la voce di quelli che vi furono, di quelli che vi saranno, di quelli che si dissero addio, di coloro che vollero andarsene e di quegli altri che vollero far ritorno» (the voice of those who are no more, of those who are going to be, of those who said goodbye, of those who chose to go, and of others who chose to come back). With this invitation to listen to oneself and to other people, to fight indifference, preserve memory, and thus respect places and the people who lived there, Leydi’s text gives young people a deeply touching example of civilization.

**Activity 3 – Listening**

**Step 1. General structure**

We suggest listening to the entire piece first, keeping an eye on the text. Students should be made aware of the different ways in which both levels, verbal and musical, interact with each other:

- In most sequences, the verbal and musical levels are interlaced;
- Some sequences alternate both levels (as in no. 13, where a section of dance music introduces the reading of the verbal text);
- In some sequences we only have the musical level (no. 16 and no. 19).

A first listen will help sharpen the focus on two major features of radio compositions – brevity and modularity. The musical level is built on short acoustic events (different voice timbres, several types of noises taken from the urban environment, musical phrases generated by electronic instruments, recordings of music pieces performed on traditional instruments) which, although interacting with one another throughout the piece (for instance, by juxtaposition of overlapping), remain perceptually recognizable – the listener is actually able to tell a hammer strike from a hoop or a dance tune. Similarly, the listener is able to clearly distinguish the verbal level from the musical level. The idea of modularity, applied to the organization of the composition at hand, suggests that the composer has the possibility to create flexible structures, in which individual acoustic items and, more in general, the musical and verbal levels, are interchangeable – which means that they can be combined in different ways.⁹

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With the second listen, again following the poem, we will attract students’ attention to a recurring theme-unit consisting of four electronic sounds. Formed by two descending and one ascending intervals, it first appears in sequence 2 (which describes a silent Milan at the crack of dawn). It then recurs several times, with slight modifications, throughout the piece – more precisely in sequences 5, 6, 8, 10, 11 and 19. It is introduced after the last word of the poem, as a conclusion to the work, as if to recapture the ‘silence’ from which everything began. The recurrence of the theme-unit performs a structural function, marking sections and guiding listeners, who are given general directions throughout the running time of *Ritratto di città*.

**Step 2. Individual sequences**

In this step we focus on a series of sequences, or specific parts of them, with the aim of looking into the relationship between the verbal and musical levels. Special attention is paid to the contents of the poem, the way in which it is recited, and the acoustic events chosen to enhance specific expressive situations. For each sequence we analyse, we reproduce part of the poem, underlining the words and sentences on which we intend to dwell.

**Sequences 1 and 2. Il silenzio eco fantasma**

1. … Parlo naturalmente di quel minuto, o di quell’ora, o di quel secondo, non importa, in cui ad ogni nuovo risveglio di mattino, la città si ritrova tutta, improvvisamente e con sorpresa, coperta di silenzio. … Allora sulle strade miracolosamente deserte della città addormentata, scende l’attesa.
2. Eco fantasma di una remota campana, il silenzio, con piccoli passi di gatto, percorre Milano. Scorre veloce lungo i viali divenuti troppo grandi della periferia, s’infila esultante sotto i portici ancor sonori e inutili, seivola compiaciuto fra una banca e una chiesa, per le strade e i vicoli e le piazze del centro …

[1. … Of course I am talking about that particular minute, or hour, or second (no matter how long) of every new morning awakening, when the town finds itself, suddenly and unexpectedly, covered with silence. … Then, on the miraculously desert streets of the sleeping town, the waiting descends.
2. Ghost eco of a distant bell, silence, with small cat steps, walks through Milan. It runs fast along suburban avenues that have grown too large; jubilant, it seeps under the porticos, still echoing and useless; pleased, it slides between a bank and a church, through the streets and alleys and piazzas of the old town …]

We proceed to listen to sequences 1 and 2, noting to students that when the voice reads the words «ad ogni nuovo risveglio di mattino», a muffled tolling sound is heard, which, at more or less regular intervals, marks the reading of the poem until «scende l’attesa», emphasized by a loud, abrupt

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10 *Nuova musica alla radio* cit., pp. 39-47.
sound. The distant tolling of the bell announces the sentence «Eco fantasma di una remota campana», which opens the next sequence. Here the text is recited with extreme attention to syntax: the voice, pausing at each punctuation sign and paying particular attention when declaiming the verb of the opening sentence, reinforces the movement isotopy: Scorre, s’infila, scivola etc. This is combined with a long, persistent sound (pedal sound), whose continuity seems to ‘glide’ and ‘move’, just like the «silenzio» that runs through Milan.

Sequence 7. Il ragioniere


Listening to sequence 7 while keeping an eye on the poem, students will notice that the words in brackets are not read by the two voices of Gazzolo and Fanfani, and are therefore not part of the verbal, but of the musical level. These sentences, uttered by different voices (and hence with a different timbre), sound as if they were extrapolated from their context and inserted here; alternating and overlapping, they ‘represent’ a chaotic living environment in the city of Milan. Even voices, then, can be used as “concrete” sounds, recorded from the real world not unlike the ticking of a clock or the typing sound of a writing machine, and combine them to obtain an expressive effect.

Sequences 10 and 11. Meraviglia di un bambino

10. … Suoni dementi d’organo giocano senza scopo fra le nere colonne del tempio, sparsi, sospesi; poi fuggono nella luce da una finestra trovata aperta.
11. [«Guarda mamma, guarda!»]13
[10. … demented organ sounds play aimlessly among the black columns of the temple, scattered, suspended; then run away, lost in the light of a window left open.]

As soon as the narrator’s voice finishes reading the text of sequence 10, leaving us with the image of sounds that «fuggono nella luce da una finestra trovata aperta», there follows a purely instrumental section (beginning of sequence 11): electronic sounds interweave with fragments of birdsong, previously recorded and processed. The timbre effect is highly evocative. The surprised tone of the child’s voice as he utters the words «Guarda mamma, guardal» reinforces the idea of an imaginary scene in which sounds are ‘flying’ out of a window. The resulting effect is a synergy between the two spheres of sound and image.

12 Ibid., p. 331.
13 Ibid., p. 335.
Conclusion

In an age in which passive, distracted listening prevails «nel panorama musicale che sonorizza senza sosta lo sfondo della nostra vita»¹⁴ (in the musical landscape that is the constant soundtrack to our life), an educational path built on Ritratto di città, a composition that came to life thanks to the very tools that have made such a soundtrack possible, turns out to be extremely important for the younger generations – especially for young people who want to learn how to enjoy music in a conscious way, who aim at acquiring the critical tools to approach what they listen to, and hence reject the kind of passive, automatic listening induced by the mass media.¹⁵

Ritratto di città is a crystal-clear example of how new technologies have broadened immensely the range of sound and music items that can be used, as well as the possibilities for treating and processing such items, and composing with them. At the same time, this radio work presupposes highly sophisticated listening abilities, in particular a keen ability to discern both levels, the verbal and the musical: it is essential that students be able to listen to, and comprehend, the explicit and implicit meanings of the verbal text, and know how to put them in a relationship with sounds, noises and various music elements that emphasize, enhance, and enrich such meanings.

In this perspective, an educational path about Ritratto di città allows teachers to pursue highly instructive, educational goals: they can teach young people that the rich, varied and complex manifestations of reality, which they come across daily, can be understood, approached, and managed only by acquiring and honing a dialectical vision of phenomena, as well as a solid ability to interpret them.

Possible developments

An educational path that focuses on Ritratto di città can provide Music teachers with an opportunity to make connections with several other disciplines, such as:

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¹⁵ For more on the need to help learners develop active, conscious modes of listening, please refer to the studies of Giuseppina La Face on Listening didactics, in particular the following publications: «Musica e Storia», XIV/3, ed. by G. La Face Bianconi, 2006, pp. 489-731; Educazione musicale e Formazione, ed. by G. La Face Bianconi and F. Frabboni, Milan, FrancoAngeli, 2008; La musica tra conoscere e fare, ed. by G. La Face Bianconi and A. Scalfaro, Milan, FrancoAngeli, 2011.
Art and Image: the importance given to “noise” connects Ritratto di città to the Italian artistic-cultural movement of Futurism, which flourished in the first two decades of the 20th century;¹⁶

Italian: Leydi’s poem, rich as it is in analogies, metaphors and synaesthesias, can be broadly associated with the poetic school of Hermeticism (1930s-40s);

Science and Technology: we can deepen the knowledge of electronic devices that were available at the time of Berio and Maderna, just as we can teach students how to use modern software for audio editing and composition. With the help of these software tools, which allow users to control sound recording and processing, the students, guided by their teachers, will be able to work on the production of other, similar acoustic ‘portraits’.

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