# Teledescante no1: polyphony in time of plague

# Maurício Funcia De Bonis, Fábio Scucuglia

Universidade Estadual Paulista | Brazil

Resumo: Esse relato de experiência contempla uma composição instrumental como projeto para realização audiovisual em isolamento social, durante a pandemia da Covid-19. A partir da problematização do impacto da pandemia e do isolamento social no fazer musical, buscaram-se soluções não apenas viáveis como resultado artístico para os meios empregados, mas que também se apresentassem de forma propositiva e prospectiva em tempos de crise humanitária, de sombria simetria entre neoliberalismo capitalista e negligência programada nas políticas de saúde pública. Após uma descrição da pesquisa sobre o recurso à arte em pandemias passadas como princípio norteador na escolha dos materiais, é detalhada a realização audiovisual da peça. A peça foi escrita em abril de 2020 como desdobramento da análise de um moteto renascentista que, por sua vez, fora concebido ao mesmo tempo como homenagem a um compositor que perecera da peste e como paliativo contra a doença.

Abstract: This report contemplates an instrumental composition as a project for audiovisual production in social isolation, during the Covid-19 pandemic. Based on the problematization of the impact of the pandemic in music making, solutions were sought that were not only viable as an artistic result but that could also be projected in a purposeful and prospective way in times of humanitarian crisis, of dismal symmetry between capitalist neoliberalism and programmed neglect in public health policies. After a description of the research on the use of art in past pandemics as a guiding principle in the choice of materials, the audiovisual production is detailed. The piece was written in April 2020 as a result of the analysis of a Renaissance motet, which, in turn, was conceived as a tribute to a composer who had perished from the plague and as a palliative against the disease.

**Palavras-chave:** Composição Musical, Referencialidade, Metalinguagem, Contraponto, Polifonia. **Keywords:** Musical Composition, Referentiality, Metalanguage, Counterpoint, Polyphony.

n invitation from the Santo André Symphony Orchestra (OSSA) for a new symphonic composition, in the first half of 2020, was suspended by the interruption of all in-person artistic events, with the arrival of the first wave of the Covid-19 pandemic in Brazil. From the artistic direction came the initiative, at the beginning of April of the same year, to convert the demand into a chamber piece to be remotely performed, assembled from the recordings of the individual parts and later broadcast on video (on internet audiovisual platforms). The composition *Teledescante nº1 (cesset jam manus tua)*, by Maurício De Bonis, was completed in April 2021 and then recorded by OSSA musicians Danilo Lopes, Henrique Franquim, Otinilo Pacheco and Wagner Felix, under the direction of Abel Rocha. The audio and video recordings made by the group were then edited for audiovisual production and dissemination via the internet by Fábio Scucuglia<sup>1</sup>. The instrumental ensemble, namely, flute (also piccolo), violin, clarinet in Bra and trumpet in C, was chosen bearing in mind the potential of sound relations to be established in a remote environment, avoiding loss of sound definition in the low band of the recording – a very likely case for internet transmissions, be it due to the quality of common headphones or speakers for home computers, or because of the limitations of audio quality on platforms such as YouTube, for example.

The obstinacy in building a testimony on the barbarism that plagues us that went beyond musical discourse led, as a first stage, to research on musical responses to times of plague in the history of Western culture. This survey allowed the conformation of the base materials of *Teledescante nº1*, which, together with the suggestions present in the title and in the program notes – and also in a brief quotation at the end of the piece – created a potential listening field, charged with associated meanings by the structural relations between discourses with markedly different origins and qualities². However, the resource to referentiality as a field of work is not the main goal in this text; rather, it is proposed as a report on the work done, when far from the workspace.

In the piece, the trumpet plays a leading role in the enunciation of possible reference points for the synchrony of the ensemble – between these points, polyphonic simultaneity occurs with relative

<sup>&</sup>lt;sup>1</sup> The video produced by OSSA and Fábio Scucuglia for the series *MicroEstreias da Quarentena* ("MicroPremieres in Quarantine") can be seen at: <a href="https://www.youtube.com/watch?v=Zx7aY3-TbzQ">https://www.youtube.com/watch?v=Zx7aY3-TbzQ</a>.

<sup>&</sup>lt;sup>2</sup> There is great contrast between recent approaches to this phenomenon such as metalanguage, intertextuality, rewriting, *reécriture* or musical borrowing, among others (even if most of these authors deal primarily with personal testimonies rather than comprehensive proposals for conceptualization). A thorough discussion on possible approaches to this line of work was undertaken in De Bonis (2014).

indeterminacy, according to the internal pulse reference of each performer, without communicating thoroughly with the other members of the group. The choice for the trumpet is also related to its precise attack, its body of sound in the mid-low register and its sound projection, along with the clarity of perception of its fundamental frequency. The score guides the limits of the reference to the part of the trumpet, together with suggestions for strategies in assembling the audiovisual realization of the polyphony (see the Annexes).

#### 1. On research toward musical sources

The outbreak of the Covid-19 pandemic amidst the advance of poverty, of neoliberal policies and of neofascist rhetoric in Brazil (little was known, in April 2020, of the devastating reach of programmed negligence in public policies to prevent viral contagion) conducted initial research more directly towards the bubonic plague than to more recent occurrences like the so-called "Spanish flu". If the plague's first outburst in the West dates from 1348, its periodic occurrences would still be devastating for centuries to come. In 1503, Josquin Desprez left his post in Ferrara shortly after an outbreak of the plague that caused the entire court to leave the city. His position was taken by Jacob Obrecht, who eventually died of the plague in Ferrara in 1505. About two decades after the death of Obrecht, Philippe Verdelot<sup>3</sup> writes the five-voice motet *Recordare domine / Adjuva nos*, employing as a *cantus firmus* (in both sections of the piece) the melodic line of the *bassus* (including its original durations) from *Parce domine, populo tuo* (for 3 voices), by Jacob Obrecht. Verdelot's motet was probably written in Florence around 1527 when, in the peak of the composer's social and political insertion, all musical activities are halted in the city, following a new wave of the plague pandemic. Extant registers concerning Verdelot's life and work cover up to this point, and it is not known if he survived the plague<sup>4</sup>.

<sup>&</sup>lt;sup>3</sup> The composer Philippe Deslouges, born in Verdelot (France) around 1480 and later based in Italy, become known in that country as Verdelotto.

<sup>&</sup>lt;sup>4</sup> For further information see Lockwood (2009, p.230-234) and Bowen (2003, p.108). Slim (1972, p.71-72) suggests that the use of *cantus firmus* on *Parce domine* by Verdelot in *Recordare domine / Adjuva nos* accounts for a double homage: to Jacob Obrecht and to Girolamo Savonarola (1452-1498), whom he openly supported.

The *Recordare domine* text comes from the mass written by Pope Clement VI for the protection of the faithful against plague, in that fateful 1348, in Avignon. It would be widely reprinted in sixteenth-century missals. This mass, planned for singing through five days in a row, became known by several different names before its incorporation into modern missals under the title *Pro vitanda mortalitate vel tempore pestilentiae*<sup>5</sup>. In the first part of his motet, Verdelot sets to music an excerpt from the text of the *Introitus* of the mass, and in the second part, he uses the final part of the *Tractus* (Tab.1).

TABLE 1 – Original text in Verdelot's motet, and free translation.

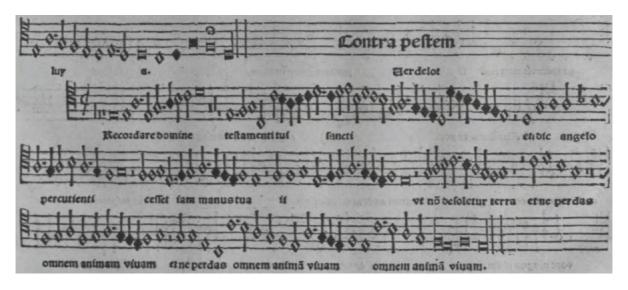
Recordare Domine testamenti tui	Remember thy covenant, O Lord,	
et dic angelo percutienti	and say to the destroying angel:	
cesset iam manus tua	stay now thy hand,	
ut non desoletur terra.	that the land be not laid desolate,	
Et ne perdas omnem animam viventem	and that thou destroy not every living soul.	
Adjuva nos, Deus salutaris noster	Help us, O God of our salvation,	
et propter gloriam nominis tui,	for the glory of thy Name:	
Domine, libera nos	O deliver us,	
et propitius esto peccatis nostris,	and be merciful unto our sins,	
propter nomen tuum	for thy Name's sake.	

Source: VERDELOT (1532).

In Jacques Attaignant's edition from 1534, the score is accompanied by the indication "contra pestem" (Fig.1). During the planning of *Teledescante nº1*, we transcribed the whole of Verdelot's motet to modern notation, based on Jacques Moderne's edition (VERDELOT, 1532).

<sup>&</sup>lt;sup>5</sup> See Hanska (2002, p.81-84), Paden (2014) and Macklin (2008, p.64-78, 85-87; 2016). Schwarz and Starling describe the order, in October 1918, that all churches in Salvador celebrated this mass after the outburst of the "Spanish flu" in Brazil (2020, p.72-74).

FIGURE 1 – *Tenor* part for the first part of Philippe Verdelot's motet *Recordare domine*, in the Jacques Attaignant edition (1534), with the indication "contra pestem" written in the score.



Source: VERDELOT (1534).

The musical materials in Verdelot's motet and their polyphonic structure reveal their origins both in Obrecht's 3-part *Parce domine* and in the chant for the *Introitus* of the *Pro vitanda mortalitate* mass (Fig.2). Verdelot's motet was written in the same mode as this *Introitus*, mode 4 (hypophrygian, in Glareanus's system).

FIGURE 2 – Recordare domine, chant from the Pro vitanda mortalitate mass.



Source: GRADUALE (1961, p.139).

In turn, Obrecht's 3-part Parce domine has its final cadence over A, but the *bassus* in Obrecht's piece (Fig.3, which would serve as the *cantus firmus* for Verdelot's motet) emphasizes very prominently the note E in the first and last verses, before coming to a rest on A.

FIGURE 3 – *Cantus firmus* in the *secundus altus* in *Recordare domine / Adjuva nos* by Verdelot, originated in the *bassus* of Obrecht's 3-part *Parce domine.* 



Source: VERDELOT (1532).

Verdelot ingeniously plans his motet in two parts, using Obrecht's melody in its original version in the first part, ending this section on A (momentarily suggesting mode 9), and then, in the second part, he transposes the *cantus firmus* a fifth higher (strictly keeping the same durations), thus starting on B and ending on E – and finally asserting mode 4 for the motet as a whole. The clefs used in each of the four voices that make up Verdelot's motet (excluding the *secundus altus*, which conveys the *cantus firmus*) are in perfect coincidence with those typically used in mode 4 in all voices with the exception of the *superius*, which Verdelot writes in a rare, lower-than-usual configuration. This choice, together with the addition of a fifth voice for the *cantus firmus* (the *secundus altus*), characterizes the close and dense sonority imagined by Verdelot.

The identity with the plainsong associated with the *Pro vitanda mortalitate* mass resides not only in the choice of mode, but also in the initial melodic profile: first, in addition to the repeated notes, the leap of a minor third is highlighted, and then, sequences by conjunct motion within the minor third occur, in the melody presented by the *superius* and immediately imitated at the unison by the *altus* and an octave lower by the *bassus* (Fig.4).

<sup>&</sup>lt;sup>6</sup> For a compilation of the positions of several sixteenth-century authors on the clef setting that characterizes this mode, see Smith (2011, p.119).

Re - cor - da - re, do - mi-ne, \_\_\_ Re - cor-da - re, do - mi - Re - cor - da - re, do - mi - Re

FIGURE 4 – Beginning of *Recordare domine* by Verdelot: imitations at the unison and at the lower octave.

Source: VERDELOT (1532, transcribed by the authors).

Some melodic traces at the beginning of Obrecht's piece are reflected in Verdelot: the minor third spin in *superius* and *tenor* at the beginning of *Parce domine* (Fig.5), emphasizing the notes A and C alternately, is unfolded by Verdelot in a kind of mirror game, with the voices in imitation at the unison (Fig.4). The minor third melodic interval also opens the second part of the motet, once again multiplied in imitations.

It is relevant that the descending fragment (from C to G) that occurs in imitation right at the beginning of Obrecht's piece (Fig.5, in the *tenor* and then in the *superius*) is taken up literally at the beginning of bar 3 of the *superius* in Verdelot's motet, in the second enunciation of the word "recordare" (Fig.4). This line is multiplied in imitations at the beginning of the piece, and it prominently reappears with the words "omnem animam vivam", at the end of the first part (bars 20 to 27).

FIGURE 5 – Beginning of Obrecht's 3-part Parce domine.

Source: OBRECHT (2014).

The game of echoes that obstinately occurs on the word "recordare" in Verdelot's piece may have been written in reverence to the motet *Memor esto verbi tui*, by Josquin Desprez. An impressive document on the inseparability between musical material and its mnemonic foundation, *Memor esto* begins and ends with imitations at the unison that barely distinguish spatial from temporal detachment.

In Verdelot's motet, the moment of sharpest contrast with the predominant polyphonic variety is the homophonic clamor on the text "cesset jam manus tua" ("stay now thy hand", bars 13 to 17, Fig.6), a dramatic outcry to the destroying angel in order to stop the slaughter by plague. Even here, Verdelot articulates another two layers, in independent time measures: the faster movement in which the *tenor* breaks apart from the whole, and the enunciation of the *cantus firmus* in broader values on the offbeat (maintaining the original rhythm from the Obrecht motet). Once its structural function is a homophonic contrast to the predominant linear variety in Verdelot's piece, this material isn't directly referred to in the composition of *Teledescante nº1* (it is present, however, in the subtitle of the quartet). The destroying hands, from the 14<sup>th</sup> to the 21<sup>st</sup> century, are certainly not restricted to biblical angels, to viral envelopes or to bacterial scourges.

FIGURE 6 – Bars 9 to 17 from *Recordare domine / Adjuva nos*, with cadential movements on C pointed out, just before the enunciation of the text "cesset jam manus tua".



Source: VERDELOT (1532, transcribed by the authors).

## 2. Raw material from plagues past

The beginning of *Teledescante*  $n^{o}$  1 could be heard as a kind of response to the conclusion of Verdelot's motet, as if the two pieces were heard in a sequence (a half-millennium leap). The unfolding of the polyphonic thread in Verdelot's motet, in all its variety of melodic, intervallic and textural profile, leads to the coincidence (in the final cadence) of proportional wavelengths between voices, in the long and static consonance over E that ends all contrapuntal movement. From this same E, now in the middle register, a new discourse begins – one that maintains, in each block of information, the "freezing" of a restricted pitch band, shifting the parameterization of textural variety and discursive articulation to the durations, the modes of attack and sustain, and the internal morphologies of musical objects (Fig.7).

The construction of unpredictability in *Teledescante nº 1* takes place particularly in the confluence between the general indication "Rubato, 'improvvisato' (non sincronizzati)" and the writing of durations, in the first part. Inside each block, rhythmic values privilege aperiodicity within each part and asynchrony between parts, while based on simple divisions of the pulse in 3, 4, 5 parts and their multiples. The dynamics plan follows a similar strategy to that of durations, in the unpredictable multiplicity of a limited range of contrasts. The indeterminate character in the synchrony of the parts (the first assumption of the piece as conceived for social isolation) demands that more or less clear reference points be articulated for distinguishing one block from the other. One part always remains in a long note while the others are filtered out, as a guide for each cut in the first part of the piece, as seen in bars 3, 8, 12 and 15 (Fig.7 and 8).

Regarding the variety of sound production and modes of sustainment, a more rigorous control is called for (Fig.7 and 8): most of the rhythmic values are inseparable from their categorization as modes of attack (for example: *staccatissimo*, *staccato* under a slur, *staccato* under a *tenuto* mark). In addition to these indications, the clear emission of a range of modes of attack and sustainment is called for (see Tab.2).



FIGURE 7 – Teledescante nº1, bars 1 to 11.

Source: DE BONIS (2020, p.1-2).

TABLE 2 – Modes of attack and sustainment demanded in the score of *Teledescante n* $^{\circ}1$ .

flute	violin	clarinet	trumpet
- air sounds	- flautato	- breathy sounds	- harmon mute (stem
- breathy sounds	- punta	- pitch oscillation	removed)
- non vibrato	- sul pont.	- frullato	- harmon mute (wawa)
- molto vibrato	- legno batt.	- slap	- straight mute
- pitch oscillation	- Bartók pizz.		- cup mute
- frullato (variable)	- pizz.		- pitch oscillation
- tongue ram	-		- frullato
- key slaps			

Source: DE BONIS (2020).

The unpredictable accumulation of this varied field of objects and their combinations embodies the absence of a regime of large-scale rhythmic or intervallic variation that would unfold directly from the musical material. Each block is a variant of the previous ones. All of these are of unpredictable conformation, but at the same time they remain static within the limits of their internal morphology.

Already in the second bar the pitch range is varied: the unison over middle E is widened to a range of a semitone, from a quarter-tone below to a quarter-tone above E (approximately). Between bars 9 and 11, the upper pitch limit expands to a semitone above initial E3 <sup>7</sup>, while the complete pitch range expands to a minor third – as we have already commented, a relevant interval in the melodic structuring of Verdelot's motet. The range of a minor third is sometimes filled by a semitonal cluster, as the microtonal oscillation around D and E (alternately) is eventually added. The trumpet attack that opens bar 9 melodically affirms the minor third interval, while a minutest homage to Berio's *Sequenza* for that instrument is initiated – one that also corresponds to the first notes heard in the *Missa pro vitanda mortalitate* (Fig.2).

The brief centrality on CP4 (bars 13 to 15) favors, in contrast to the previous blocks, octave doubling and also long note values sustained by irregular or oscillating iteration. The following bars replicate on CP4 the same group of four notes that had been heard starting on D3; here, it will be formed by CP4-D4-DP4-E4 (Tab.3). Ending the first part of the piece, this block is subjected to a sharp cut in each part (not necessarily a synchronous one), without previous dilution of the density, followed by a long pause (Fig.8).

 $<sup>^{7}</sup>$  Note numbering was based on the French system (considering middle C as C3).



FIGURE 8 – Bars 12 to 22 of Teledescante nº1.

Fonte: DE BONIS (2020, p.3-4).

TABLE 3 – Pitch ranges in the first part of *Teledescante nº1*. Respectively bars: 1-8; 9-11; 13-15; 16-21.



Source: DE BONIS (2020).

The second part of the piece is formed by three polyphonic moments, remotely modelled on Verdelot's motet. The first of these three referential passages (and the one that sounds the farthest from Verdelot's original) is based on the presentation of the imitation on the text "ut non desolatur terra": trumpet is based on the *bassus*, clarinet on the *tenor*, violin on the *superius* and piccolo on the *altus* (compare Fig. 9 and 10). Harmonic aggregates oscillate here between whole tone sets and clusters within the minor third range (as in the first part).

FIGURE 9 - Bars 17 to 19 from *Recordare domine / Adjuva nos*, by Verdelot.



Source: VERDELOT (1532, transcribed by the authors).



FIGURE 10 – Bars 23 to 33 from *Teledescante nº1*.

Source: DE BONIS (2020, p.5).

The following part, which constitutes the density climax in the second part of the piece, is more directly modeled on the imitation written by Verdelot on the words "omnem animam vivam", at the end of the first part of the motet. Bars 34 to 43 of *Teledescante nº1* are based on the excerpts marked by rectangles in figure 11 (below): piccolo is based on the *altus*, violin on the *superius* and clarinet on the *tenor* of Verdelot's motet (see Fig.12). Reminiscent of the great mobility in the melodic profile of the *tenor* (and eventually also in the *altus*), in contrast to the other voices in Verdelot's motet, the trumpet now performs freer variations on the three fragments marked by dashed lines in Figure 11 below. The melodic range of thirds is surpassed by the construction of "pseudo-modal" sequences, filled by contradictory diatonic fragments between parts (Fig.12).

FIGURE 11 – Bars 18 to 27 from *Recordare domine / Adjuva nos*, by Verdelot, with markings on cadential movements and on the fragments that were referred to in bars 34 to 43 from *Teledescante nº1*.



Source: VERDELOT (1532, transcribed by the authors). FIGURE 12 – Bars 34 to 43 from *Teledescante nº1*.



Source: DE BONIS (2020, p.6).

In the third and last moment in the second part of the piece, the previous polyphonic density is filtered unto a four-note figure, insistently multiplied in accentuated variations of its profile throughout the register, superposed to the pulsation of a carrier wave that is reminiscent of the first part of the piece. This pulsation, always in three short notes, three long ones and three short ones again, flows discreet and obstinate as a cry for help via light signal (Fig.13). From bar 44 to 58, the imitative pilings of the new four-note figure (and its variants) are repeated twice; first, on clarinet, violin and piccolo, and then on trumpet, violin (harmonics), piccolo and again on the trumpet.

This textural profile is followed by a brief exposition of its origin, heard as a response to its transfiguration, in the quotation of the *bassus*, *tenor* and *altus* parts (in that order) from bars 42 and 43 of *Recordare domine / Adjuva nos* (Fig.14), heard from bar 59 to 63 of *Teledescante nº1* (in clarinet, violin and piccolo, Fig.13). Until the beginning of bar 61, the quotation occurs with the original pitches, while the distinction between parts is accentuated by the choice of pizzicato on the violin and by the transposition to an octave higher on the piccolo. Then, the first chromatic alteration in relation to the original is heard: Ge on the violin refers to a plausible melodic occurrence in the context of 16<sup>th</sup> century modal polyphony, as a *ficta* alteration in the cadence on A (on the *tenor* in bar 42, Fig.14). This change triggers, as a consequence, the chromaticism in the final note of each fournote group on clarinet and piccolo, mischaracterizing the diatonicism of the quotation and unifying these two linear groups to the same restricted harmonic aggregate (within the minor third) that characterizes pitch structure in *Teledescante nº1* since bar 9 (introducing C-B-A-Be on the clarinet in bars 59 to 61, and E-D-F-Ee on the piccolo in bars 60 to 63, Fig.13).

This four-note figure, in all its variants present in Verdelot's motet, is projected as a kind of amulet against plague: on the words "libera nos" (from cp.40, Fig.14), Verdelot begins, in the manner of Josquin, a series of imitations on a melodic representation of the cross (a descending step, an ascending leap and again a descending step).

FIGURE 13 – Bars 44 to 63 from *Teledescante n^{\varrho}I*, including the short varied quotation from bars 42 and 43 of Verdelot's motet in rehearsal letter I.



Source: DE BONIS (2020, p.7-8).

FIGURE 14 – Bars 38 to 45 from the motet *Recordare domine / Adjuva nos* by Verdelot, outlining the cadential movements and the occurrences of the "cross" motif (its variations are marked by dashed lines).



Source: VERDELOT (1532, transcribed by the author).

In the second and third cadential movements marked in Fig. 14, the occurrence of imitations of the cross motif stands out, together with the suspension of dissonances that accompany them, which are rare in this motet: major seventh between *tenor* and *bassus* in bar 41; and a minor seventh added to a perfect fourth (resulting in a quartal aggregate, B-E-A, in addition to the diagonal presence of D in the *superius*) in bar 42, between *tenor* and *bassus* and between *altus* and *bassus*, respectively.

The piece ends with a brief memento of the textural profile of the first part, which now emerges as a result of the dilution of the previous passage, in a contrasting response to the brief 16<sup>th</sup> century fragment stated "inside quotation marks". The unpredictable accumulation of attacks in unison, here, is liquidated by the articulation of two variants on materials from the first part of the piece. First, the range of a minor third as a restricted pitch space is filtered. Only its extremes remain: CE on the trumpet and E on the other three instruments. This pitch range and sound quality resonates with the immediately preceding passage (compare bars 44 to 58 with bars 64 to 68, in Fig.15). Finally, the unison on E in the upper parts, in the final bars, occurs one octave higher than

in the first part. This transposition not only accommodates the ensemble to the lower limit of the piccolo (enhancing its sonority contrast with the flute in the first part), but it also evokes the final cadences in Verdelot's motet, especially in the conclusion of the first part. The general tendency to come to a rest in the lower register is contradicted by Verdelot, who ends both parts of his motet in open positions, close to the upper limit of the overall register of the piece. Far from signifying a solemn closure, this opening in register, together with the absence of a complete cadential movement, contributes to suspension, to incompleteness, to a kind of circumstantial interruption of the polyphonic movement. In *Teledescante nº1* the gradual dilution of accumulations leads to the last breath, in the low register of the piccolo: the most fragile instrumental register in the set, here it is already far from clear pitch definition and from varied oscillation criteria.



FIGURE 15 - Bars 64 to 68 of Teledescante nº1.

Source: DE BONIS (2020, p.9).

#### 3. Audiovisual realization

The audiovisual realization of the musical works in the project MicroEstreias da Quarentena (of which the piece *Teledescante nº1* is a part) can be considered an inversion of values in the production of concert music. Historically, classical music production values the actual musical event, in which the performers rehearse together, arriving at joint solutions for the score and creating a shared interpretation, which is then recorded and produced. In this sense, the context of the pandemic forced those responsible for promoting concert music to adapt to production in commercial music formats: the musicians record their parts individually, following strategies for later synchronization. Usually a metronome guide is not a viable option for the production of concert music in any way, but as seen earlier, in the work in question, the composer provides specific strategies for remote performance, and the use of the metronome is specifically unrecommended. The materials generated by the two processes (in loco event recording and "per channel" recording) are completely different: in the second option, instead of receiving files recorded from microphones that captured the whole set, we receive separate files from each instrument, with different ambiences. In addition, in the pandemic, such recordings were often made with cell phones, generating results of a much lower quality than those achieved in an on-site recording with specialized microphones. This is a situation that, just a few years ago, would have been considered unfeasible. Adding to that the fact that musicians generally do not have a suitable recording location in their homes, the situation would not even be considered.

The remote treatment of this type of material with technical restrictions puts us in contact with a very important aspect of music production: in the process of learning the engineering of musical recordings, we are inevitably led to the realization that, considering the materiality of the entire sound production and recording process (score, interpreter, musical instrument, microphones, preamps, converters, DAW, etc.), the most important link in the chain is, indisputably, human, linked first and foremost to the composer and performers involved. In other words, when the score is well written and performed by specialized interpreters, the capture and production can indeed become secondary. No doubt, an interpretation in the "old molds" would be preferable, but given the impossibility that was socially imposed by the pandemic, it would be unreasonable to imagine that

the production of new compositions should end. In this sense, the necessary post-production tools were sought, so that a result could be reached through which the score is well represented in the interpretation and aesthetic enjoyment is not compromised.

In the specific case of the audiovisual production of *Teledescante nº1*, both the conductor and the artistic director worked alongside with the orchestra musicians throughout the whole process, in order to carry out the audiovisual recordings with the least possible loss of quality amidst all the spatial and technological limitations involved. As explained above, the work was composed so as to allow for a "semi-precise" polyphony, so that the rigor in sound coincidences was put in check. Thus, the audiovisual production, carried out by Fábio Scucuglia, could take place with adequate alignment between the different instances involved. Initially, the musicians were instructed to choose the best location for recording and positioning their cell phones. As predicted in the score, the first to record his part was the trumpet whose recording served as a guide for the other musicians. All material was submitted to the conductor's scrutiny even before reaching audiovisual production so that the best interpretations could be built together, albeit at a distance. Finally, the conductor followed the audio mixing closely, always in contact with the composer and the audio producer, having reached a satisfactory version for all involved: musicians, conductor, composer and producer. The material was produced by single takes of each instrument, with no subsequent cuts being made, as requested in the score.

Deepening the discussion to the technical level, due to the problems exposed so far, the mixing of *Teledescante nº1* had to be expanded, adding some usually non-existent techniques in ideal recording occasions. One of these techniques was the inclusion of sampling noise reduction processing, in which background noise samples can be extracted as a reference for the formant component of the noise to be eliminated. This procedure was applied to each of the audios received from the musicians and, despite being quite efficient, it must be done with attentive listening when choosing parameters, as it can negatively compromise the sound of the instrument.

Once this was done, it was up to us to normalize the amplitudes, which varied considerably according to the smartphone models used in the recording and to the distance between musician and device. Such adjustment of amplitudes can be done quite accurately with digital (and even analog) tools currently available but in concert music these are generally underused or applied with great

caution as they compromise the dynamic range of the final material (or, in layman's terms, the distance between the softest and strongest sound recorded in an audio file). This dynamic range is very important for the appreciation of concert music recordings, situations in which dynamic variation is essential, even acquiring aesthetic meaning.

Regarding the control of amplitudes, the production encountered the greatest barriers, as the microphones used (often from the smartphone itself) have a very limited dynamic range. In this way, every amplitude variation created by the performers during the recording became in fact a timbre alteration with minimal dynamic variation. Furthermore, there is a wide range of different attack modes required in the score, generating a rich spectrum of high amplitudes as opposed to more subtle modes of sustainment. The solution, in this case, consisted of automating the volumes according to the indications in the score (taking care that such variations did not sound mechanical), using the ear as a parameter for fine-tuning the phrasing. This does not mean that the musicians' interpretive choices were disregarded. On the contrary: the adjustment in the automations was made to follow the timbre variations resulting from the interpretive dynamic oscillations.

When the dynamic issue was taken care of, the sound of each instrument was adjusted through panoramic distribution and parametric equalizer. The first step in this process was to separate the instruments in the stereo image, to avoid masking the frequencies the instruments have in common in the same channel. The absence of instruments with a strong presence in the bass and mid-bass frequencies allowed the use of a high-pass filter to eliminate many ambient noises that still remained in the lower spectrum. After that, the adjustments of the other frequencies of the equalizer were very punctual, prioritizing the sound of the ensemble over the individual sound of each instrument. Naturally, recordings made via cell phone bring an exaggerated pronunciation of midrange frequencies, as they are designed specifically for the comprehension of the human voice, and regulation of these midrange frequencies is the main challenge in these cases. As the particular instrumentation of *Teledescante nº1* requires trumpet and clarinet (with a naturally very pronounced middle register), the balance of frequencies was subordinated to the relationship of these instruments with the mellowest timbres of the flute and violin. It is also worth mentioning that in a situation like the present one, in which musicians recorded at their homes, often in small chambers, some of the mid-range frequencies were canceled by capturing the direct reflection of the sound on the walls. In

these cases, the equalizer is irrelevant, an "incomplete" sound being a contingency we had to deal with.

As the last mixing process, we added an ambience (reverb) to finish the resulting mixed tones. As a first option, we tested a simulation of a large-scale environment, emulating a concert hall. However, once again we were confronted with the existence of the video: an ambience that was not consistent with the recording environment would sound false, at the risk of giving the impression that the video had been dubbed (which was not the case here). In this sense, we chose to use a softer ambience, with higher early reflections, short time in pre-delay and little reverberation time (below 0.8 seconds). In a strong contact established with the conductor and the composer, we opted for the mix that was officially presented on May 17, 2020.

Finalizing the post-production process, once the stereo file consolidated, the mastering process was carried out with very punctual interventions in the dynamic processes (light compression) and adjustments in the mid-highs equalization (to avoid the opaque sound coming from the limited sound capture). Consolidation with video for online publishing has also tightened the limits of dynamic range; however, timbre variations, combined with volume automations, ensured an overall adequate result according to the aesthetic content demanded by the score and its interpretation.

#### 4. Final considerations

In this report written by the authors themselves on a musical realization, a thorough discussion on the listening experience of the final result was intentionally absent, in favor of a detailed description of the whole process. The piece was conceived as a "parody motet" based on a musical palliative against the plague, deriving some of its structural foundations from five-hundred-year-old polyphony. In the first part of the piece, a sort of reverse incantation resounds, in the repetition of vibrations of proportional wavelengths (a common trace with musical works that were often conceived for spaces with a high degree of reverberation). In the organization of strata in the second part of the piece, the presence of transfigured linear fragments of pre-existing chants (somewhat charged with meanings from their original texts) stems from the spatial multiplication of prayer by the parish, as in the reference to Gregorian monody amidst contrapuntal composition in the past.

If the diversity of the chosen instrument families reflects one side of the musicians' individual isolation, the assembly of the polyphony in turn bears the mark of social isolation and its impact on musical achievement. The main objective in this work was not the recording of a composition conceived for a live performance in concert (although this form of presentation is not forbidden in the score) but rather a piece conceived for remote performance. Here, the score means not only the codification of musical thought to be carried out collectively by the group of interpreters, but also a project for remote realization, involving audiovisual production as an interpreter's work.

This foundation guided the choice of materials, the structuring of polyphony and the search for possible semantic and syntactic associations, extrapolating the internal structural relations of the score. In the symbolic presence of traces of a palliative prayer against plague commonly used since the 14th century (and now incredibly revived), the mark of unordered superposition of solitary individuals prevails. The individual results vary in sound morphology and in their potential for mobility and discursive articulation, but at the same time, they resent the impossibility of contact. They share, at the limit of their quest for meaning beyond the lack of breathable air, the memory of hope.

### **ACKNOWLEGDEMENT**

We would like to acknowledge our gratitude to the researcher Carlos Cascarelli Iafelice for his indispensable assistance and revision of the transcription of Philippe Verdelot's motet from the sources into modern notation.

#### **REFERENCES**

DE BONIS, Maurício Funcia. *Tabulae scriptae*: a metalinguagem e as trajetórias de Henri Pousseur e Willy Corrêa de Oliveira. São Paulo: Editora UNESP Digital, 2014. Available at <a href="https://doi.org/10.7476/9788568334379">https://doi.org/10.7476/9788568334379</a>. Access on September 11th, 2021.

\_\_\_\_\_. *Teledescante nº1 (cesset jam manus tua)*. Paris: Babelscores, 2020. Available at <a href="https://www.babelscores.com/catalogs/instrumental/6716-teledescante-n-1">https://www.babelscores.com/catalogs/instrumental/6716-teledescante-n-1</a>. Access on September 11th, 2021.

BOWEN, William. The Contribution of French Musicians to the Genesis of the Italian Madrigal.

Renaissance and Reformation, Toronto, v.27, n.2, p.101-114, 2003. Available at <a href="https://doi.org/10.33137/rr.v39i2.8872">https://doi.org/10.33137/rr.v39i2.8872</a>. Access on May 26th, 2021.

GRADUALE Sacrosanctae Romanae Ecclesiae: de tempore et de sanctis. Tournai: Desclée & Socii, 1961.

HANSKA, Jussi. *Strategies of sanity and survival*: religious responses to natural disasters in the Middle Ages. Helsinki: Finnish Literature Society, 2002.

LOCKWOOD, Lewis. *Music in Renaissance Ferrara*, 1400-1505: the creation of a musical center in the fifteenth century. New York: Oxford University Press, 2009.

MACKLIN, Christopher Brian. *Musica sanat corpus per animam*: towards an understanding of the use of music in response to Plague, 1350-1600. 2018. Thesis (Doctoral, Music). University of York. Available at <a href="https://etheses.whiterose.ac.uk/14146/">https://etheses.whiterose.ac.uk/14146/</a>. Access on May 26th, 2021.

\_\_\_\_\_. Stability and Change in the Composition of a 'Plague Mass' in the Wake of the Black Death. *Plainsong and Medieval Music*, Cambridge, v.25, n.2, p.167–89, 2016. Available at <a href="https://doi.org/10.1017/S0961137116000024">https://doi.org/10.1017/S0961137116000024</a>. Access on May 26<sup>th</sup>, 2021.

OBRECHT, Jacob. *Parce Domine*. For three voices. Copenhagen: Peter Woetmann Christoffersen, 2014. Available at <a href="http://amiens.pwch.dk/Contents/Am162f018.html">http://amiens.pwch.dk/Contents/Am162f018.html</a>. Access on May 26th, 2021.

PADEN, William D. An Occitan Prayer against the Plague and Its Tradition in Italy, France, and Catalonia. *Speculum*, Chicago, v.89, n.3, p.670-692, 2014. Available at <a href="https://doi.org/10.1017/S003871341400075X">https://doi.org/10.1017/S003871341400075X</a>. Access on May 26<sup>th</sup>, 2021.

SCHWARCZ, Lilia Moritz; STARLING, Heloisa Murgel. *A bailarina da morte*: a gripe espanhola no Brasil. São Paulo: Companhia das Letras, 2020.

SLIM, H. Colin. *A gift of madrigals and motets, volume I*: description and analysis. Chicago: University of Chicago Press, 1972.

SMITH, Anne. *The Performance Of 16t<sup>b</sup>-Century Music*: learning from the theorists. New York: Oxford University Press, 2011.

VERDELOT, Philippe. Recordare domine / Adjuva nos. In: ATTAIGNANT, Pierre (ed.). *Liber quartus, XXIX*: musicales quatuor vel quinque parium vocum modulos habet. Paris: Pierre Attaignant, 1534. Available at

https://imslp.org/wiki/Motettorum%2C\_Book\_4\_(Attaingnant%2C\_Pierre). Access on May 26<sup>th</sup>, 2021.

\_\_\_\_\_. Recordare domine / Adjuva nos. In: MODERNE, Jacques (ed.). *Secundus liber cum quinque vocibus*. Lugduni: Iacobum Modernum de Pinguento, 1532. Available at <a href="https://www.digitale-sammlungen.de/de/view/bsb00075662">https://www.digitale-sammlungen.de/de/view/bsb00075662</a>. Access on May 26<sup>th</sup>, 2021.

#### **ABOUT THE AUTHORS**

Maurício Funcia De Bonis: A composer and a pianist, De Bonis is assistant professor at the Institute of Arts at UNESP. He graduated in Musical Composition at the University of São Paulo (tutored by Willy Correa de Oliveira), where he also obtained his Master's and Doctoral degrees (both of them with a FAPESP scholarship). During his doctoral program, he led part of his research at the Paul Sacher Foundation collections, in Basel. He attended the 40<sup>th</sup> Ferienkurse fur Neue Musik in Darmstadt, and he had his compositions presented in the main contemporary music festivals in Brazil, besides concerts in Chile, Mexico, Panama, Italy, Colombia, USA and in the ISCM World Music Days 2017, in Canada. OR CID: <a href="https://orcid.org/0000-0003-2650-2028">https://orcid.org/0000-0003-2650-2028</a>. E-mail: <a href="mauricio.bonis@unesp.br">mauricio.bonis@unesp.br</a>

Fábio Scucuglia: Holding a Master's and a Doctoral degree from UNESP (with professors Florivaldo Menezes Filho and Maurício Funcia De Bonis as his tutors), he graduated in Musical Composition, Conducting and Electroacoustic Composition at this same university in 2008. He has experience in the field of musical acoustics, working professionally since 2008 in the recording and production of concert music. He has also been working in the area of music education since 2005. ORCID: <a href="https://orcid.org/0000-0001-8493-676X">https://orcid.org/0000-0001-8493-676X</a>. Email: <a href="mailto:fscucuglia@yahoo.com.br">fscucuglia@yahoo.com.br</a>

## **ANNEXES**

# **Recordare domine**







# Adjuva nos

Secundus liber cum quinque vocibus (Lyon: Jacques Moderne, 1532) Transcr.: Maurício De Bonis, 2020

Philippe Verdelot (ca.1480-1530) Tenor: Parce domine (J. Obrecht)













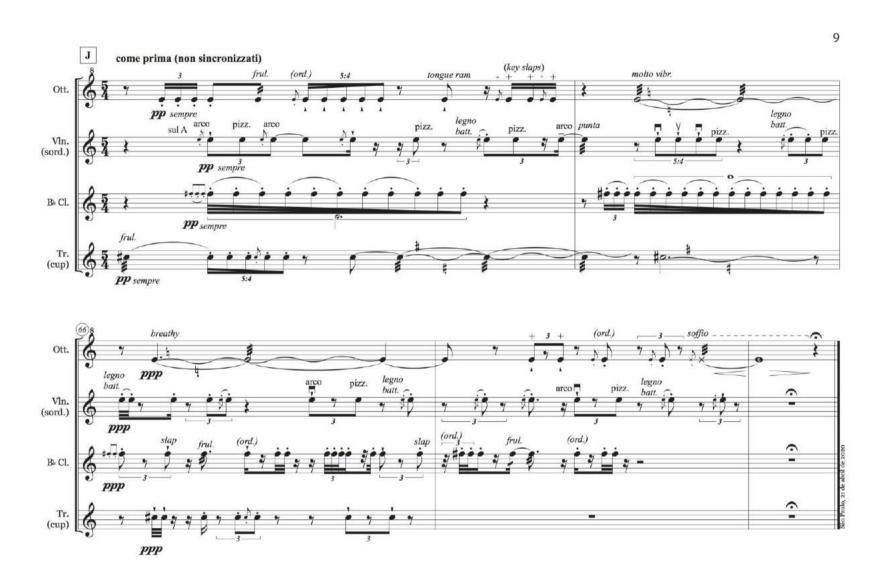












### **Teledescante nº 1** (cesset jam manus tua)

for flute/piccolo, violin, clarinet and trumpet

eventually.

Maurício De Bonis (2020)

André Symphony Orchestra, designed for preventive social isolation during COVID-19 pandemic. Some of the musical materials employed, as well as the subtitle of the piece, come from *Recordare domine | Adjuva nos*, a 5-voice "contra pestem" motet composed in the early 16th century by Philippe Verdelot, on a cantus firmus by Jacob Obrecht (then a recent victim of the plague in Ferrara).

In case of preparation of the "descant" by telecommunication, the use of a metronome or electronic reference for pulse is not recommended. The trumpet part should serve as a guide for the other three musicians in organizing the polyphony. In the case of synchronous performances of the piece over videoconferencing platforms, it is recommended to record video and audio in separate takes, (marking the beats before the beginning), for later mixing in better quality. In the case of recording each part separately for later mixing, the trumpet part must be recorded first, so that each musician can listen to it while recording his part. In the first part of the piece (rehearsal letters A to E), the trumpet provides the reference for the beginning of each section (in each rehearsal letter), since in this section there is no need for precise synchronization. After identifying the first notes of the trumpet in each section (as a signal), each musician must follow his own pulse individually (in the first section, each pulse is approximately one second long). In the second part of the piece (rehearsal letters F to J), in which greater precision must be sought in the synchrony of the ensemble, the trumpet part must be followed more frequently by the other three musicians, as a reference for the beginning of each measure. In case of editing and mixing of excerpts recorded from a distance, mixes of single unedited takes should be prioritized (as long as possible), in order to maintain a satisfactory degree of synchronization in the second part of the piece. If necessary, editing cuts can be made in the silences of bars 22 and 59,

This piece was designed for preparation and presentation via internet, comprising a series of "Micro Premieres in Quarantine" by the Santo