

Towards Overcoming the Guitar's Color Research Gap¹

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Abstract: Most (classical) guitar music comes from guitarist-composers. Yet according to guitarists who collaborate with composers, color research on this instrument is better achieved by those who do not play the instrument. Thus the guitar lags behind many instruments in regard to color research. Various reasons can be faulted for the tendency of non-guitarist composers to avoid the instrument. Examples of such reasons may be: the difficulty to write for the instrument, and its weak projection and lack of sustain, all of which are intrinsic to the guitar. This is, however, not the case of the paradigmatic sound for which the instrument is also dismissed, which is rather the legacy of the conservative guitarist Andrés Segovia, who was one of the main promoters of the guitar in the twentieth century. When composers dismiss the guitar for being difficult to write for, collaboration with guitarists has proven fruitful. Given that Segovia's conservatism still prevails among many guitarists, if the sonorous possibilities of the instrument are to be expanded, it is essential that the guitarist is adventurous and has a good arsenal of techniques. New color-research results could entice composers dismissing the guitar for its limitations or its paradigmatic sound to reconsider composing for the instrument. The amplification of sounds with low intensity can be a useful tool to obtain new colors. However, sounds arising from conventional instruments require some caution. It is important to introduce novelty in order to avoid connotation with their respective non-amplified instrument. The technique of multiphonics, which produces sounds of unusual colors, is believed to be a suitable tool when the guitar is amplified with close microphone placement. Through making audible the sounds' components of a lower intensity, this situation would reveal to the audience colors otherwise only heard by the guitarist.

Keywords: multiphonics; guitar multiphonics; extended techniques; guitar; amplified guitar.

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Making use of the technique as an effect, most certainly to evoke the sound of bells, Fernando Sor was possibly the first composer to have requested (albeit implicitly), in ca. 1832, multiphonics on the guitar (TORRES; FERREIRA-LOPES, 2012a, p. 58). Although the sounds would have suited the aesthetic ideal of some composers of the beginning of the twentieth century and onwards, the technique had to wait nearly 140 years until it was asked for again in a score – to our knowledge Bartolozzi (1975, p. 3) was the first after Sor to have requested the technique (now explicitly) and, today, it has yet to be absorbed into the guitar's vocabulary. At the turn of the century, not only was the guitar too small for the gigantism of romanticism, but also faced prejudice against it as an art-music instrument – a sentiment that still prevails to some extent. Later, while other instruments were being scrutinized in the search for new colors (BROOKS, 1974; BURTNER, 2005), the guitar was slowly coming out of the rule of conservative guitarist Andrés Segovia, an effect that has still not vanished despite the effort of more adventurous guitarists. These and other reasons have led to a gap in color research on the guitar. This paper highlights them and proposes several solutions.

Color research on the guitar: mind the gap

Composer Toru Takemitsu, who, “of all the instruments he wrote for, ... loved the guitar the most”, felt frustrated with “guitarist-composers who were afraid to either leave tonality or fully embrace it”, recalls guitarist David Tanenbaum (2003, p. 193) who stresses that much of the music by these composers “blurs the formerly held lines of classical and pop” (p. 201). Guitar compositions tend to come from guitarists and the “trend is growing, as many young players are composing as well” stresses Tanenbaum (p. 201). A 2013 Soundboard issue devoted to “Composing for Guitar”⁴ confirms this: all featured composers are also guitarists. At the turn of this century, guitarist-composer Stephen Goss, noting “an increase in the number of performances of new works composed by guitarists”, asked:

Is this because the idiomatic comfort and familiarity, and therefore ease of execution, of these pieces is seducing guitarists? Or is it simply the case that the guitar world is becoming increasingly ghettoised—guitarists travelling the world, playing music written by guitarists to audiences made up of guitarists? (GOSS, 2000, section 3, last para.)

Both reasons: “We still do not take enough chances ... and there can be a dulling sameness to our efforts” stresses Tanenbaum (2003, p. 205); and, as guitarist Magnus Andersson points out:

⁴ Vol. 39, No. 3.

The quantitative progress [in repertoire] was not, however, always accompanied by a corresponding qualitative improvement. Instead, it more likely confirmed the ancient prejudice of an instrument so tributary of its idiomatic a priori that any compositional attempt outside the specialised circle of guitarists and guitarist-composers was impossible. I then searched for music that was not influenced by the established guitar aesthetic. A music that would distance itself from the narcissistic virtuosity, without having to renounce its sensuality. (ANDERSSON, 1988, p. 128, translation by the authors)⁵

Tanenbaum, like Andersson, prefers to work with non-guitarist composers “for the very reason that their music is not as idiomatic”, since “they often have to reach further to imagine sound on the guitar, and also because [he] become[s] much more involved in the creation of the music and its realization on the instrument” (TANENBAUM, 2003, p. 202).

One or other “texture or type of sonority might be worth exploring more than it has been”, acknowledges guitarist Jonathan Leathwood (2010, p. vi), who like guitarist-composer Angelo Gilardino (1973, p. 9), finds this to be particularly achieved by composers who do not play the guitar: “By reimagining the guitar’s sonorities and idioms, these composers have profoundly influenced the development of guitar technique and musicianship” and have composed the “most significant modern guitar works” (LEATHWOOD, p. vi).⁶ Ribeiro points to the fact that many non-guitarist composers “write almost exclusively chamber music and/or orchestral music because they come from a tradition with a great variety of timbre (colors). Many have searched for – and developed – means to obtain those same characteristics with the solo guitar” (RIBEIRO, 2012, p. 3, translation by the authors).⁷

Gilardino (1994, p. 5, translation by the authors) sees in guitarist-composer Miquel Llobet's insistence with Manuel de Falla to write for guitar “a gesture of civism and hope”, in which there was also perhaps “the reckoning of the boundary reached by the research of an instrumentalist who composes from the inside of an idiom.”⁸ A boundary that Goss is always trying to overcome:

If you're a composer and a guitarist, then you tend to know the dark secrets of the instrument, but there is a danger that you depend too much on familiar formulas and pre-conceived ideas of the instrument's boundaries. ... I'm always trying to escape default responses to musical stimuli—the war against cliché, as Martin Amis put it. I think composers have to keep finding new and interesting ways of writing for the guitar in the light of an already extensive repertoire. (TRAVISS; GOSS, 2013, p. 30)

⁵ Original version: Le progrès quantitatif, toutefois, ne s'accompagnait pas toujours d'une amélioration qualitative correspondante, mais tendait plutôt à confirmer le anciens préjugés à l'encontre d'un instrument si tributaire de ses a priori idiomatiques qu'il rendait impossible toute tentative de composition, en dehors du cercle spécialisé des guitaristes et des compositeurs pour la guitare. Une musique qui se distanciat de la virtuosité narcissique, sans pour autant renier sa sensualité.

⁶ Improvised-music performers generate new techniques but their findings hardly reach the paper.

⁷ Original version: Muitos escrevem quase que exclusivamente música de câmara e/ou música orquestral, pois vêm de uma cultura com forte variedade de timbre (cores). Muitos buscaram – e desenvolveram – meios de obter essa mesma qualidade com o violão solo.

⁸ Original version: C'è forse, in questo gesto di civiltà e di speranza, anche l'abbandono del limite in cui fatalmente s'imbate la ricerca dello strumentista che compone dall'interno di un idioma.

Color research on the guitar is hence better achieved by non-guitarist composers, but the majority of the compositional output stems from guitarist-composers. The former group tends to avoid the guitar, being the above-mentioned *impossibility* in writing for the instrument one of the reasons identified for their dismissal. This, along with other reasons, is discussed below.

Folk instrument

Romantic times were precisely those in which the guitar was at its worst; and then, of course, it spread all over Europe. It was made to play the sort of music that other instruments played, but it was not really suitable for nineteenth-century music, and so it dropped out. (Falla as quoted by Trend in TURNBULL, 1974, p. 110)

The second half of the [nineteenth] century, dominated by the gigantism of Wagner, saw the instrument's decline to an anachronism and novelty. It simply could not speak the language of ultra-chromaticism and titanic energy. By the time Richard Strauss and Gustav Mahler brought romanticism to its culmination, the guitar was totally irrelevant to the central thrust of Western Art Music. (HODEL, 1999, p. 9)

Thus, until Manuel de Falla's *Homenaje* (1920) – his only piece for guitar and one of the first guitar compositions of the twentieth century by a non-guitarist – “the guitar was only present in music as evoked element”; composers “used it as a model to try a stylization of the 'Spanish language'” but left it out of the stage (DE PERSIA, 1996, pp. 27-28, translation by the authors).⁹ In the words of Falla in regard to *El sombrero de tres picos*: “My intention has been to evoke by means of the instrumentation in particular passages, certain guitaristic values” (as quoted in WADE, 1980, p. 156). Part of the problem lay also in the fact that, according to Wade, the composers' “orchestral scores imitated the flamenco guitar. To transfer such dances to the classical guitar would become a redundant art after a while” – the orchestra was therefore more convenient “to convey the dimensions of Spanish culture” (p. 161). The physical absence of the guitar on stage can be also related to the existing prejudice against the guitar as an art-music instrument, due its strong presence in folk music. As Lorca recalls:

While the Russians were burning with love of folklore, a unique source, as Robert Schumann said, of all true and characteristic art, while in France the gilded wave of Impression[ism] quivered, in Spain, a country almost unique in its tradition of popular beauty, the guitar and *cante jondo* were things for the lower classes. (LORCA, 1922/2008, p. 6)¹⁰

It was the guitarists themselves who, as De Persia (1996, p. 27) points out, in the beginning of the twentieth century, “through their own transcriptions, harmonizations, or recovery of works from the

⁹ Original version: La guitarra no estaba presente como tal, sino sólo como elemento evocado. ... Usaban la guitarra como modelo para intentar una estilización de "lenguaje español".

¹⁰ In its motherland, this situation was not new to the guitar: by mid-eighteenth-century, its “natural home ... was in the humbler parts of Spanish society”, as under the rule of Philip V, “the Italian musical style [had] bec[o]me strongly favoured ..., the publication of new Spanish music had been largely suppressed ..., and the guitar had all but vanished from fashionable middle-class theatres” (TYLER; SPARKS, 2002, p. 193).

past, tried to open up the space denied for so many years to Spain's emblematic instrument.”¹¹ Francisco Tárrega, Miquel Llobet, and Emilio Pujol are the names outlined by Moser (1983, p. 391), which respectively played a major role in the three domains above-mentioned by De Persia. According to Gilardino (1994, p. 5, translation by the authors), it was Llobet who, in his harmonizations of Catalan folk songs, “finally specifies the timbre as the highest value of the guitar.”¹² It was also Llobet's insistence with Falla to write for guitar that lead the composer to write *Homenaje* when asked to contribute with an article to a special volume of *La Revue Musicale* dedicated to the memory of Debussy (DE FALLA, 1926/1989, p. 1).¹³ Moreover, it was Llobet who worked closely with Falla on the technical details of the piece for its definitive edition (DE PERSIA, pp. 36-37).

Institutions offering an academic curriculum in guitar were hardly a reality in the first half of the twentieth century. According to Brill (1994, p. 2), a professorship in guitar existed nevertheless in Vienna since 1914. In the UK, the possibility to study guitar as a first instrument was only introduced in 1959, approximately a decade after guitarist Julian Bream pursued his musical studies (GOSS, 2000, section II, para. 6). This guitarist was, from 1983 to 2012, the only guitarist to be featured on the cover of *Gramophone Magazine* which is “considered to be one of the leading publications for classical music worldwide” (REVERBERATIONS, 2012, p. 6). This fact puts in evidence that the guitar has still not achieved full-status as an art-music instrument. However, two recent events point towards some change: the announcement of the launch, by the Guitar Foundation of America, of a new peer-reviewed publication – *Soundboard Scholar* – aiming “to publish contributions of the highest caliber in academic work related to the guitar” (REVERBERATIONS, 2013, p. 72); and the launch in March 2014 of the International Guitar Research Centre at the University of Surrey.¹⁴

Coelho considers the undervaluing of the guitar within the classical tradition a result of the following factors:

[1] Prior to the eighteenth century, guitar music was written in tablature, an immensely practical type of notation but one that continues to obscure the repertory from most non-players ... [2] the emphasis that historians have placed on the contributions of 'great' composers – that is, whose works can be arranged as links in a long chain of influence, ... which effectively pushed guitar composers ... to the periphery of musical developments. ... [3] the artistic concept of musical 'evolution' and compositional 'worth', in which works achieve their standing and posterity through validation by musical analysis. Through this model ... guitar works [by guitarist-composers] ... are 'quantifiably' rendered 'inferior' ... [4] musicology's apprehension (until recently) to engage in the study of popular cultures (or even *culture*). (COELHO, 2003, pp. 3-4)

¹¹ Original version: Los propios guitarristas fueron quienes, en esos comienzos del siglo, a través de sus propias transcripciones, armonizaciones o recuperaciones del pasado, intentaron abrir el espacio negado durante muchos años al instrumento emblemático de España.

¹² Original version: Individua finalmente nel timbro il valore massimo della chitarra.

¹³ Segovia claims, however, "that the genesis of the work [*Homenaje*] was prompted by Torroba's success with the Danza in E major" (Wade, 1980, p. 155).

¹⁴ <http://www.surrey.ac.uk/schoolofarts/research/guitar>

Regarding this last factor and as to what the guitar concerns, Coelho acknowledges that, actually, “performers like Segovia” (1893-1987) are more to blame than musicologists for the “impenetrable’ firewall around the Western art tradition” (p. 8).

The first “essential task” to which Segovia dedicated his life was “to separate the guitar from the mindless folklore type of entertainment” (as quoted in GOSS, 2000, section II, para. 5). It was, however, the folk tradition that allowed the guitar as an instrument to survive all crises along its history, as Miteran (1997, p. 157) stresses and Turnbull recalls:

Each period saw the guitar elevated for a while only to sink back once more to its traditional role as a popular instrument. Far from deprecating this, one can see in it a source of strength; to continue its life as a folk instrument, the guitar had to remain uncomplicated, and one can pay tribute to those many people who, because they were unambitious in their music-making, enabled the guitar to survive long enough to become the most active and the most important fretted instrument of today. (TURNBULL, 1974, p. 108)

And, as Coelho remarks:

It is difficult to see how the classical guitar could have maintained its presence without the many rock-trained students who began flocking to guitar programs since the middle 1970s, successfully transferring some aspects of their self-taught rock training (particularly left-hand technique) to classical guitar. (COELHO, 2003, p. 10)

The impossible task of writing for guitar

Segovia “never promoted or played music by a living guitarist-composer” (TANENBAUM, 2003, p. 185). Thus, all composers that wrote for him were not guitarists and this was for Miteran (1997, p. 235) Segovia's greatest achievement.¹⁵ This is because, as Berlioz stresses, “it is almost impossible to write well for the guitar without being a player on the instrument” (as quoted in WADE, 1980, p. 127), or, at least, if you are not familiar with it, notes composer Clarice Assad, who stems from a family of guitarists:

It's not easy to write for guitar if you have no idea of what the instrument really is. If you're in college studying to become a composer, you study a lot of new music, classic, but you never see a line written for guitar. It's rare. So, composers who are walking around don't even think about it. In orchestration classes, there is only a sad, limited portion about the guitar. It's not emphasized, so it becomes a monster with seven heads for people who want to write for it but don't know the sound of the guitar. I know where the fingers are if I hear an arpeggio because I heard it too many times. It's part of my musical vocabulary; I grew up listening to it. But for most composers it's ridiculously hard to write for guitar. (DUREK; ASSAD, 2012, p. 112)

¹⁵ Some composers like Villa-Lobos were, however, well acquainted with the instrument.

Composer Vito Žuraj's confirms Assad's words:

The guitar is not a standard instrument in the orchestra and thus I have not yet found out what to write for it. And it is technically special so that, as a composer, one has to deal exactly with it before one can write something good for it. (V. Žuraj , personal communication, Jan. 16, 2012, translation by the authors)¹⁶

Žuraj's statement is corroborated by the words of guitarist Christian Rivet:

It is a very idiomatic instrument and to make it sound it is in fact almost necessary to play it. ... there is a terrible, terrible fear because it is difficult to make the instrument sound in a way... ... it is complicated, it is difficult to make the instrument sound. (BRUNEAU-BOULMIER; RIVET, 2011)¹⁷

Goss sees the harmonic possibilities of the guitar as the "trap" to many composers:

If you're an outsider wanting to write for guitar, it's a steep learning curve. It's not like learning how to write for saxophone, for argument's sake. With a wind instrument, you learn the range and fingering charts, the qualities of the different registers, what's comfortable and what's not comfortable, how certain articulations and effects are executed, what the balance issues are, and off you go. With guitar, there is a lot more tacit knowledge to unpick. Very few non-guitarist composers have really understood the idiom well. ... Many composers fall into the trap of thinking of the guitar as first and foremost a harmonic instrument. I think of the guitar as a melody instrument, more a violin or a cello with extra possibilities of resonance, than as a piano with debilitating limitations. (TRAVISS; GOSS, 2013, p. 30)

To Nassif, the guitar's multiple functions – "harmonic, rhythmic, and melodic" – tend to leave unclear which should be its usage. He finds the guitar sounds, in fact, as a "textural instrument", since "it intertwines and juxtaposes the frontiers of the organizational parameters of musical thought" (NASSIF, 2010, "(um pouco sobre) 'silhuetas de uma dança imaginária'", para. 1).¹⁸

The limitations of the guitar

Del Busto mentions the "weight" imposed by tradition on composers when creating, and how heavier this is when the task is to write concert pieces for the "Spanish concert guitar." He attributes this to the fact that the instrument is "more limited ... not only in the technical possibilities but also in

¹⁶ Original version: Gitarre ist kein Standardinstrument im Orchester und ich kam daher noch nie dazu, was dafür zu schreiben. Und es ist technisch speziell, so muss man sich als Komponist schon genau damit befassen, bevor man was gutes dafür schreiben kann.

¹⁷ Original version: C'est un instrument très idiomatique, pour le faire sonner il faut vraiment casimment le jouer. ... il y a un peur terrible, terrible. Parce que c'est compliqué pour faire sonner l'instrument d'une manière... ... c'est compliqué, pour faire sonner l'instrument c'est difficile.

¹⁸ Original version: O violão, situando-se de modo múltiplo como instrumento harmônico, rítmico e melódico, muito comumente carrega o charme particular de não chegar a definir claramente o seu emprego. Soa de efeito como um instrumento textural, já que imbrica e justapõe as fronteiras dos parâmetros de organização do pensamento musical.

the composers' knowledge on those possibilities, in its years of existence as a concert instrument,^[19] in its geographical expansion, and thus in its repertory” (DEL BUSTO, 1998, p. 130).²⁰ Composer Brian Ferneyhough (n.d.) writes about the task of inscribing his language “into the rigorous limits of the historically and physically delimited 'text' of the guitar”. In other words, in what regards the latter limitation : “How violence, mass and gestural emphasis could be carried across from my previous practice into the acoustically restricted universe of the guitar” (FERNEYHOUGH, 1995, p. 152).

The acoustical limitations are also stressed by composer Tristan Murail: “With the guitar there is not mass nor either the sustain of the sound” (ANDIA; MURAIL, 1984/n.d., answer 4); and recalled by Schneider (1985, p. 104): “The guitar has always been criticized as musically insignificant because of its poor timbral and dynamic range.” The “poor timbral range”, for which the guitar is often dismissed and is in part related to the “limited technical possibilities” mentioned by Del Busto, is, however, not intrinsic to the instrument but the legacy of Segovia's conservatism, as we shall stress below.

The Segovia *sound*

“Initially, Segovia's promotion of the guitar injected a 'noise' into the concert music tradition, in the sense that it introduced a new, disruptive type of sound into the rarified world of concert music” (CARFOOT, 2006, p. 36). Afterwards, and in his own words, he raised the guitar “to the loftiest levels of the musical world” (as quoted in TANENBAUM, 2003, p. 184). However, there was a price to pay for this:

He so thoroughly dominated the scene that his name became synonymous with the term "classical guitar". Its audience was conditioned to the Segovia style. But if his rise to fame was the *sine qua non* for a guitar renaissance, his success playing king of the mountain had negative, even suffocating consequences. In Segovia's wake, any guitarist seeking an audience had to conform to his conservative repertoire, if not to his approach to interpretation. And a composition for guitar had little chance of success without him performing it. (HODEL, 1999, p. 14)

“Segovia vowed to rescue the guitar from its small-minded enthusiasts by eventually, when the time was ripe, approaching leading composers and asking them to write for guitar” (WADE, 1980, p. 151). Although he played a significant role in enlarging the classical guitar repertoire, he did little to enrich it, having rather “consolidated and extended a conservative viewpoint”, stresses Hodel (2000, p. 8). As Tanenbaum (2003, pp. 184-185, 190) recalls, Segovia was “adamant in his dislike for the modernist stream of composition” and only “played music he believed in” (he ignored Martin's *Quatre*

¹⁹ The first soloist concerts were given in 1831 by Paganini in Paris (MITERAN, 1997, p. 131).

²⁰ Original version: ... instrumento não apenas muito mais limitado ... quanto a recursos técnicos, mas também muito mais limitado quanto ao conhecimento real desses recursos por parte dos compositores, quanto ao tempo de existência concertística, quanto à sua expansão geográfica e, portanto, quanto ao seu repertório.

Pièces Brèves, which were written for him, and turned down Schoenberg's offer to write for him), resulting in a “lack of great composers in his original repertoire”, for which the fact that he never paid for a single piece may also account.

In the works of “great composers” the guitar is usually found in chamber music, which, as Pfäffgen recalls, has always resulted from “opportunity work”²¹ – “no noteworthy composer has shown renewed and sustained interest in the guitar”²² (PFÄFFGEN, 1988, p. 202, translation by the authors) Thus Grün's assertion: “The guitar's repertoire consists in main works of irrelevant composers and secondary works of relevant composers” (as quoted in PFÄFFGEN, 1988, p. 190, translation by the authors).²³ According to Moser, the lack of interest by the latter group is not in the guitar but in writing for guitarists. This is because those composers cannot not see in guitarists “great musicians” who can understand their artistic demands and with whom they can feel in equal situation – a reputation, for which Segovia is also to blame and which explains the “missed out repertoire”²⁴ of the first half of the twentieth century (MOSER, 1983, p. 394, translation by the authors).

The musical lines of the pieces written for Segovia are free from the typical problems arising from the fact of a composer hardly knowing the instrument. According to Gilardino (1994, p. 6), this is thanks to Segovia's “revisions”, which he considers questionable when compared with the original scores. “The Segovia repertoire” consists in transcriptions, in some older works, and in new compositions of “post-romantic-impressionistic-colored music influenced by hispanic-folk music” (PFÄFFGEN, pp. 190-191, translation by the authors).²⁵ This *sound* became paradigmatic. And distasteful to some composers like Murail:

My impression is that the traditional guitar such as one usually hears it is a treason of the original instrument: in fact it is a product of the XIXth century. People wanted to imitate the other instruments and to make guitar something sizeable, i.e. able to play classical music. The guitar is in the beginning an "ethnic" instrument. Of Arab origin (quitara), it is used in Spain to play the Arabo-Andalusian music and flamenco, but with a very different technique which leads to very different sounds: those I use in *Tellur*. What I like in the guitar, it is precisely not the guitar of SEGOVIA, its polished and decorous side, but the use that one makes in flamenco and also in Latinamerican music, although I'm not crazy about these musics for themselves. (ANDIA; MURAIL, 1984/n.d., answer 1)

The guitar's wicked step sister

Following the gradual acceptance of the instrument in th[e concert music] setting, much writing about the guitar in the early and mid-20th century aimed to reinforce the development of an orthodox concert tradition.

²¹ Original version: Gelegenheitsarbeit.

²² Original version: Kein nennenswerter Komponist hat sich wiederholt und nachhaltig für das Instrument interessiert.

²³ Original version: Das Repertoire der Gitarre bestehe aus Hauptwerken unbedeutender und Nebenwerken bedeutender Komponisten.

²⁴ Original version: verpaßte Repertoire.

²⁵ Original version: Hispanisch-folkloristisch beeinflusste, nachromantisch-impressionistisch gefärbte Musik.

The development of the electric guitar in the 1940s and 1950s came as something of a threat to this ideology. (CARFOOT, 2006, p. 36).

The “creative and musical possibilities of the electric guitar” were dismissed by some as late as 1974 (CARFOOT, 2006, p. 36). "Paradoxically, the long sought academic acceptance of the guitar into the musical mainstream has come not with the classical guitar, but with the electric guitar" stresses Goss (2000, section IV, para. 6). Perhaps because, as guitar maker Manuel Contreras II points out, whereas the classical guitar “is a very demanding instrument to master and it just does not suit everyone[, m]ost people can get something out of an electric guitar” (Contreras as quoted in DAWE; DAWE, 2001, p. 73).

In the art-music scene it is not uncommon to find composers who have used the electric guitar – mostly in ensemble²⁶ – but never the classical guitar. As “the sociocultural ideologies that are inscribed in musical instruments cannot be divorced from those instruments” (CARFOOT, 2006, p. 38), the composers' preference for the electric guitar might be related with the fact that the ideology surrounding it is associated with “the incursion of 'chaotic noise'” and “is also intimately tied to discourses of gender, race, age and generation, nostalgia, and the powerful effect of sound itself” (CARFOOT, p. 36). This is, in fact, the case of composer Luís Pena, who is yet to make use of any kind of guitar in his work and would choose the (classical) “guitar's wicked sister” because it “has a different 'coolness' factor and brings [to the music] an aura of subversion which many prefer.”²⁷ Should he have a performer to work with, he would write for the classical guitar, which he has not used up to now for not being studied in orchestration classes, and, given its weak projection, for being difficult to combine with other instruments (L. Pena, personal communications, November, 22, 2011, October, 13, 2013).

Color research on the guitar: overcoming the gap

A secure patronage

To expand the sonorous possibilities of the guitar, it is necessary that non-guitarist composers engage in writing for the instrument. Given the mechanisms through which music history is constructed, “the secure patronage of great composers” which most other European instruments enjoy (WADE, 1980, p. 216) could help avoiding prejudice against the guitar as an art instrument. Perhaps this is especially true when looking at younger generations who tend to deify established and successful

²⁶ A search at <http://www.sheerpluck.de/search.php> for pieces for/with electric guitar gave as result 3 pieces for its solo usage against a total of 5087. Accessed October 15, 2013.

²⁷ Original version: Irmã má da guitarra ... Essa tem um factor de "coolness" diferente e traz consigo uma aura de subversidade que é em muitos casos preferida.

composers, who should then pursue guitar composition. This may end up be rewarding, as Alberto Ginastera recalls:

When the critics at its premiere received this work [(Sonata Op. 47)] as one of the most important ever written for the guitar, as much for its conception as for its modernism and its unprecedented imaginative use of sound, I thought that I had not waited in vain for several decades to make the attempt. (as quoted in WADE, 2001, p, 162)

Seizing the guitar's limitations

One does not dismiss the bowed and wind instruments on account of their essentially monodic quality. Similarly, one must not expect the harmonic possibilities and volume of a piano when considering the guitar. It is essential to evaluate the instrument on its own terms, and explore what is capable of achieving. (TURNBULL, 1974, p. 123)

This has been the approach, for example, of: Helmut Lachenmann (2004, p. 157), for whom writing for guitar is about impregnating its typical sound with his own means and vice-versa; Hans Ulrich Lehmann, who, in *etwas Klang von meiner Oberfläche* (1991), emphasizes the “intimate chamber-music character of the guitar” through “differences and nuances of sonorities” (LEHMANN, 1992, introduction, translation by the authors);²⁸ and of Christoph Neidhöfer, whose *Nach Innen* (1997)

illuminates the subtle sonorous possibilities of the guitar ... the listener's ear is turned to the finest sonorous nuances, often in the softest dynamic range and resulting in the fact that the noises which result from the action constitute a significant part of the sound. (NEIDHÖFER, 1997, p. 8, translation by the authors)²⁹

In *Sette Studi* (1990), Maurizio Pisati has also explored the guitar's limited audibility, as well as its “traditional sound”:

When the 'traditional' sound appears, it stands out from the myriad of 'other' sonorities as if on a differentiated acoustic level, and *represents a sound apart*, rare, the exception, emerging clearly from the more frequently used sonorities (stopping, glissandi, striking, harmonics, harmonics on "false" positions, etc.) which so often lack substance and resonance typical of conventional sounds.

...
The often discussed audibility of the Guitar is explored in the *Seven Studies*, not as a problem of acoustic volume, but rather as a feature of the quality of sound elements, of the quality of their juxtaposition, of levels of audibility naturally differentiated. (PISATI, 1990, introduction)

²⁸ Original version: Der Titel der Komposition deutet auf den kammermusikalisch-intimen Charakter der Gitarre und damit auf die dominierenden Aspekte meiner Komposition hin: Es ist eine vorwiegend leise, ruhige Musik, die besonders Gewicht auf klangliche Differenzierungen und Nuancierungen legt.

²⁹ Original version: Das Stück beleuchtet die subtilen Klangmöglichkeiten der Gitarre, ... Das Ohr des Hörers wird auf die feinsten klanglichen Nuancen gelenkt, oft im Bereich zartester Dynamik und mit dem Resultat, dass die durch die Spielaktion entstehenden Nebengeräusche einen wesentlichen Bestandteil des Klanges bilden.

To achieve, in *Kurze Schatten II* (1983-1989), “the generally brusque violence of [his] vernacular”, Ferneyhough (1995, p. 400) “had to seek gestural areas which were amenable to collecting and explosively releasing energies 'in miniature', rather analogous to the violent *effect* (but factually low *amplitude*) of a very pronounced flute key click.” Another of his solutions to achieve violence and mass was the “miniaturization of formal and temporal dimensions” (p. 152): in the last movement, “in a surrealistically miniaturized time frame, ... practically every conventional device of traditional guitar usage may be encountered” (p. 151). A “fundamental resource” in the creation of polyphonic layers, was for Ferneyhough natural harmonics, as “once attacked, the left-hand finger is removed and thus made available for use on some other string” (p. 141).

Commissioning and collaboration

Since non-guitarist composers do not have “a clue” on how to write for guitar, Bream wrote a paper in 1957 to aid them, hoping to encourage composers “to create a literature for an instrument that has been unduly neglected” (BREAM, 1957/2003, pp.1, 8).³⁰ Britten's *Nocturnal* is one of the first pieces written after Bream's paper, and its premiere in 1964 marks, for Wade, “the beginning of the end of Segovia's domination over the twentieth century repertoire” (as quoted in TANENBAUM, 2003, p. 192). In his recital format of that time, Bream “carefully excluded extreme avantgardism though emphasizing the contemporary. In this he continued the custom of Segovia and earlier guitarists but extended the essential framework to the point where there could be no return to former limitations” (WADE, 2001, p. 158)

For Tanenbaum (2003, p. 191), Bream's work with composers “directly helped create what may be the greatest legacy of music that any guitarist has left, far more diverse and adventurous than what was written for Segovia.” According to Morris, Henze's *Royal Winter Music I* (1976) “exists as a result of Julian Bream's request for a work similar in proportion and importance for the guitar as the *Hammerklavier* of Beethoven is to the pianoforte” (NONKEN; MORRIS, 2002, p. 14). More recently, Bream has commissioned pieces to be performed by other guitarists. Possibly aware that his 1957 paper is quite brief and “very much of its period” (BREAM, 1957/2003, p. 1), Bream also commissioned from Leathwood (who is to premiere one of the pieces) a manual to share with the commissioned composers (J. Leathwood, personal communication, March 16, 2013). In the meantime, the task of elucidating non-guitarist composers on writing for guitar had been taken up by Gilardino (1994; 1996; 1999) and Ulloa (2001).

³⁰ For Carfoot (2006), the “neglected-guitar” ideology was one of “a series of constructed ideologies around the instrument” upon which was based, or actively produced by, “Segovia's 'infamous' invention of the modern classical guitar tradition” (p. 36).

Commissioning has “guaranteed the instrument a future away from the ghetto in which it found itself at the end of the nineteenth century” stresses Morris (NONKEN; MORRIS, 2002, p. 18) and is now standard practice for many guitarists, as, for example, the *ChromaDuo*:

We decided that one of the main ways for us to make a contribution was to commission. We both have a passion for new music, and recognize that the repertoire needs constant revitalization if the guitar is to survive and thrive. Additionally, we see a fair number of composers languishing in obscurity, not knowing how to market themselves or their often beautiful and challenging music, while others who might easily create a slick presentation shy away from the risk involved in writing for such a labyrinthine instrument as ours—at least without a trusted guide.

By devoting ourselves to composers of twenty-first century music, whether on a small or large scale, we can potentially make an enduring contribution to the repertoire of our instrument. (SMITH, 2013)

Thus, as Goss stresses, “significant collaborative input from a guitarist is absolutely crucial for most non-guitarist composers” (TRAVISS; GOSS, 2013, p. 30). The collaboration with Bream gave Hans Werner Henze “a deeper knowledge of the guitar's sonic and technical aura, and even perhaps a new vision on writing for instruments with a rich tradition” (as quoted in PFÄFFGEN, 1988, p. 204, translation by the authors).³¹ In regard to his collaboration with guitarist Christoph Jäggin, composer Fritz Vögelin (1987, *Corrigenda*,³² translation by the authors) recalls: “he made me quite acquainted with an instrument, with which I, until then, had had little contact.”³³

However, color research will most certainly not take place if the guitarist is conservative and lazy, as Gilardino points out:

Guitarists who filter the repertoire between composers and listeners are too naive and lazy, and they ignore the majority of the repertoire accumulated in this century for their instrument. Their choices are influenced mainly by fashions and by a desperate search of pieces easy to be listened and appreciated by everybody. There are exceptions of course, but they are too few: in a guitar recital nowadays it is common to listen to pieces whose quality is so poor that in no other musical event apart [from] a guitar concert they could be offered. (NEW MILLENNIUM & GILARDINO, n.d., answer 7)

Gilardino (1973, p. 9) blames pedagogy for promoting such an attitude which leads to technical limitations, as pointed out by Andia (1984/n.d.):

In general, the composers of the 20th century have written for the guitar with the intention of trying to find a compromise between their musical ideas and the arsenal of possible techniques that the performer could put at their disposal. This ensemble of means was evidently limited by the routine and playing habits of guitarists and a direct function of the classical or modern repertoire they practised. In the best case, the composer pushed this technique to the limits,

³¹ Original version: ... Zusammenarbeit mit dem Instrumentalisten, aus der ich eine vertiefte Kenntnis der klanglichen und technischen Aura der Gitarre zurückbringen konnte, ja, vielleicht sogar eine neue Vorstellung vom Schreiben für traditionsreiche Instrumente.

³² Supplied by Christoph Jäggin.

³³ Original version: Er brachte mir das Instrument, zu dem ich bis anhin wenig Beziehung hatte, sehr nahe.

but it was not generally a question of a change of nature or radical renewal. (ANDIA, 1984/n.d., A New Way section, para. 2)

This leads to frustration in composers as expressed by Murail:

It is especially necessary that the traditional guitarists evolve. I would like that they can control these new techniques ... and add them to the traditional ones. It is for all the instruments that the evolution is currently done in the direction of the timbre. See the winds where research led to multiphonic possibilities and complex timbres (ANDIA; MURAIL, 1984/n.d., answer 7).

It is then essential that the collaborating guitarist is adventurous and has a good arsenal of techniques. In some cases, an impulse by such a guitarist is enough: "I had not been much concerned with the guitar before Magnus Andersson asked me to compose something for him", recalls Ferneyhough (1995, p. 148). However, "collaborating with performers ... is something with which [he] never felt comfortable." Stimulated "by the challenge of unfamiliar 'theaters'", he prefers to "thoroughly" investigate the instruments – the guitar has proved to be "especially demanding" (p. 410).

Exploring unconventional techniques

In *Kurze Schatten II*, "in order to gradually transform the resonance of the work over its total duration", Ferneyhough (1995, p. 139) decided to "modify the tuning of the instrument to produce microtonal sonorities." "At the conclusion of every second piece one string is returned to normal, so that by the seventh movement only one string (B natural) is still detuned (to Bb)" (FERNEYHOUGH, 1995, p. 400). "The final note is, appropriately, a natural harmonic Bb; a pyrrhic victory, perhaps, for the defamiliarization principle over the ineluctable encroachment, from panel to panel, of 'normal' guitar sonority" (FERNEYHOUGH, 1995, p. 152).

In *Tellur* (1978), Murail (n.d., last para.) has also resorted to different tunings as a means of defamiliarization. However, contrary to Ferneyhough, who used mainly conventional techniques when overcoming limitations, most of those used by Murail (1978, introduction) are "inspired" on the techniques of the flamenco guitar, to which the sound of the piece should be closer (instead to that of the classical guitar). By means of a continuous *rasgueado*, he has not only avoided the "guitar of Segovia" (see quotation above) but has also solved "problems of maintenance of sound and the sound/noise balance" (ANDIA, 1984/n.d., Techniques section, para. 1). The continuity of the gesture or its systematic repetition, as is the case in Berio's *Sequenza XI* (1987-1988), which is, for its dedicatee, "remarkable particularly for a non-guitarist composer in that its considerable technical difficulties are somehow still idiomatic" (Fisk as quoted in WADE, 2001, p. 185), leads to, as Ribeiro (2012, pp. 3-4/15-16) stresses, its "decontextualization". Connotation with the flamenco guitar – for which, as

Andia (1984/n.d., Conclusion section) stresses, the *rasgueado* tends to be used – is thus avoided. To this also contributes the use of different tunings, as Ribeiro (2012, pp. 16-17) also points out.

Thus, unconventional techniques not only give rise to unusual colors but can also be useful in overcoming limitations. In *Salut für Caudwell* (1977), Lachenmann (2004, p. 157, translated by the authors) “departed from the characteristic playing styles of the guitar, simplified them drastically on the one hand, and on the other hand transformed and developed them, often beyond the limits of the usual practice.”³⁴ Through bottleneck *glissandi* he might not only have desired to overcome the guitar's “imposed [equal] temperament”, as Ribeiro (2012, p. 9) recalls, but also its *discreteness*, that is, its stopped-pitch discontinuity. This, when compared to fretless instruments, is however for composer Georg Friedrich Haas (2012), an advantage when using different tunings in the sense that intonation is easily achievable.

We believe that new color-research results could entice composers dismissing the guitar for its limitations or its paradigmatic sound to reconsider composing for the instrument. The amplification of sounds with low intensity can be a useful tool in obtaining new colors, as for example in Stockhausen's *Mikrofonie I* (STOCKHAUSEN, 1989, pp. 76-87). However, sounds arising from conventional instruments require some caution. An amplified instrument is a different instrument. The sound radiated by a loudspeaker is like a “ray of concentric light”, whereas the way instruments radiate sound is like that of “diamonds lit up by a beam of light” metaphorizes composer Marco Stroppa (BÉROS et al., 2010, p. 174).³⁵ This difference alone may, however, not be sufficient to avoid connotation with the respective non-amplified instrument, and thus possible disappointment of the listener. When writing for an amplified instrument it is then important to introduce novelty (TORRES; FERREIRA-LOPES, 2012a, p. 61).

Regarding the amplified guitar, or any amplified instrument with decaying sounds, when these are left to decay away, the primary novelty introduced is the perception of a longer lasting decay. For itself, it is not much but it can aid the fruition of other sounds the amplification of which introduces novelty in color. It is believed this is the case of the sounds which the technique of multiphonics produces. This scarcely researched technique, consists, as in the case of harmonics, in damping out some of the string's vibrational modes by lightly touching the string at certain locations during or after its excitation (or both). It produces sounds of unusual colors due to their spectrum which facilitates the perception of multiple pitches, and which in some cases, due to the inharmonicity of the higher partials, leads to the perception of bell-like sounds.³⁶ It is believed that amplifying the sounds of multiphonics

³⁴ Original version: In diesem Sinn bin ich von charakteristischen Spielformen der Gitarre ausgegangen, habe sie einerseits lapidar reduziert, andererseits umgeformt und neu entwickelt, oft über die Grenzen der üblichen Praxis hinaus.

³⁵ Original version: Comme une rayon de lumière concentrique. ... des diamants éclairés par un faisceau de lumière.

³⁶ The term *multiphonic* was first featured in Bartolozzi's (1967) handbook for woodwinds and gave rise to some discussion (TORRES; FERREIRA-LOPES, 2012a, p. 57).

with close microphone-placement introduces novelty relative to the non-amplified sound by making components of a lower intensity audible to the audience (TORRES; FERREIRA-LOPES, 2012a, pp. 55-57, 61-62).

Woodwind multiphonics became one of the most researched techniques in the last third of the twentieth century (BARATA, 1988;³⁷ CASTELLENGO, 1982; GROSS, 1998; LONDEIX, 1989; VEALE; MAHNKOPF, 1994) and publications continued to arise (ARCHBOLD; REDGATE, n.d.; DEL GRAZIA, ca. 2003; GALLOIS, 2010; KRASSNITZER, 2002; LEVINE & MITROPOULOS-BOTT, 2002, 2004; PROSCIA, 2009; PROSCIA; RIERA; EGUIA, 2011; RICHARDS, n.d.; VAN CLEVE, 2004; WEISS; NETTI, 2010). In the past years the technique has gained attention in low-pitched bowed strings (DEVOTO, 2011; DRESSER, 2009; FALLOWFIELD, 2012; GUETTLER; THELIN, 2010, 2012; LIEBMAN, 2001, 2010; MARINO, 2010; ROBERT, 1995; THELIN 2011).

On the guitar, the technique has remained in the shadows. Schneider (1985, pp. 135-138) is possibly the first to have dealt with the subject. To our knowledge, his book and our own publications (TORRES; FERREIRA-LOPES, 2012a, 2012b, 2013) have been, up to now, the only sources of information on guitar multiphonics.³⁸

Conclusion

The guitar lags behind many instruments in regard to color research. To overcome this problem it is necessary that non-guitarist composers engage in writing for the instrument, especially *great* composers, since this could help avoiding prejudice against the guitar as an art instrument by other composers. For those who fear writing for guitar, collaboration with an adventurous guitarist could help promote color research. Those dismissing the guitar for its paradigmatic sound and/or its limitations could reconsider composing for the instrument when enticed with new color-research results. Thus, we are researching multiphonics, in order to provide composers and guitarists with relevant information on a technique which we believe to be particularly suitable in writing for amplified guitar. We aim to contribute to the promotion of color research on the guitar and to the establishment of multiphonics as common vocabulary in writing for the instrument, especially for amplified guitar.

³⁷ This publication contains an annotated list of publications up to 1985 for use by composers and performers. Barata does not list, at least, the following publications: ARTAUD; GEAY 1980, FARMER, 1982; GÜMBEL, 1974; KIENZKY, 1982; MEYLAN, 1974.

³⁸ In a sub-section on harmonics at unusual nodes, Gimeno (2011, p. A78, translation by the authors) mentions the production of a “multiphonic sound” in which “two harmonics can be perceived.” Mas (1984), in what is possibly the first book on (twentieth-century) extended techniques on the guitar, does not mention multiphonics. However, he lists as harmonics locations (notating them symbolically, with microtonal accidentals when not at frets), locations at which the technique of multiphonics is also, or in fact, only possible (pp. 28-30).

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