

The Galata Electroacoustic Orchestra Project

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Abstract

The Galata Electroacoustic Orchestra (GEO) project was realised in 2013 as a Lifelong Learning Programme at the Conservatory Paganini in Genoa, Italy. Its general objective was to found an orchestra devoted to live collective compositions created by music students, to merge the Western Classical tradition of score-based music with improvisation techniques, in particular those of Ottoman Turkish Makam music and Anatolian folk music. GEO proposed a multidisciplinary didactical approach to the specific subject and to its current potential thanks to the contribution of electroacoustic technology. The main aim of the project was to create a connection between electronic and traditional instruments through performing practice. Improvisation was chosen as a paradigm for the GEO, as it is the most widely practised of all musical activities; it is probably the least recognised and understood, though present in every kind of music.

This study is divided into two parts: in the first the GEO Project is described from an institutional and structural point of view, and three interviews with two students and one teacher are carried out and analysed, providing the key points of the survey scheme for the subsequent interviews. In the second part of the study, a number of GEO participants collaborated by taking part in interviews on Skype. The collected and analysed data concerned personal information, pre-enrolment requirements, insights on instruments, peers, teachers, improvisation and performance.

The high-level human relationship was the basis for the effectiveness of the GEO project, improving the performative quality of all the musicians.

The Galata Electroacoustic Project

The Galata Electroacoustic Orchestra (GEO) was a ten-day intensive course included in the Erasmus Lifelong Learning Programme (IP n°2012-1-IT2-ERA10-38878) which brought together students and teaching staff from different countries. GEO was conceived and developed by Roberto Doati, who has described his work in detail in the interview cited in this paper and in the Proceedings from the Fifth International Symposium of Music Pedagogues in Pula (Doati, 2017). The principal aim of the project was to foster the teaching of particular subjects and to allow the people involved to benefit from learning and teaching in very favourable conditions (Parncutt & McPherson, 2002), creating a connection between digital and acoustic instruments through performance practice (Jordà et al., 2007). The conceptual and technological tools of electroacoustic music – a truly new musical language based on the idea of *composing* not only using sounds, but creating new sounds (Darling, Erickson & Clarke 2007; Stuart 2003) – fit such a creation and led the whole group towards new musical experiences. Coordinator of the GEO IP project was the ‘Niccolò Paganini’ Conservatory in Genoa, while its partners were Istanbul Bilgi University, Istanbul Teknik University, Pompeu Fabra University in Barcelona, and the ‘G. Pierluigi da Palestrina’ Conservatory in Cagliari. The project started with a selection of students studying for a bachelor’s degree, master’s degree or PhD with proven experience of acoustic and/or electronic instruments in one of the following areas: composition, improvisation or interpretation in jazz, classical or folk music.

The name GEO derives from the Genoese Galata district in Istanbul, dating back to the 12th century. In general, since the beginning of the 20th century extra-European music and traditional folk music have become a true source of inspiration for Western composers (Kárpáti, 1980). Therefore, GEO proposed a multidisciplinary didactical approach to the subject and to its current potential with the contribution of electroacoustic technology. Its general objectives were to found an orchestra devoted to live collective composition, merging the Western Classical tradition of score-based music and improvisation techniques, in particular those associated with Ottoman Turkish *makam* music and Anatolian folk music (Senturk, 2011). Improvisation was chosen as a paradigm for GEO, as it is the most widely practised among all musical activities, and it is present in every kind of music (Pressing, 1988) – in all cultures and countries.

The activities were divided into lectures, workshops, laboratories, concert rehearsals and a final public concert, which took place after exams and classes had ended. The

students of GEO have explored many disciplines useful in a cultural and musical context in which the electronic component is key: acoustical analysis (microphones as sensors), interaction, musical notation, gestures, interfaces control, embodied knowledge, laptop performance, computational analysis and history.

Improvisation is a challenging musical practice, even more so if it is performed in a multifaceted context like GEO, because it requires an understanding the historical background of the musical cultures involved and knowledge of a wide repertoire from folk to jazz, from the classic and avant-garde Western tradition to the Middle-Eastern one, in both an acoustic and an electronic setting. This is why all the practical activities of GEO were preceded by historical and theoretical lectures.

The chosen guidelines to approach improvisation were:

- Effective improvisation implies listening rather than playing.
- Instead of limiting one's interaction with the other performers to pitch, dynamics and tempo, the performers must concentrate on timbre in relation to listening and sound production.
- The acoustic performers work in what we call an *horstemp*s (out of time) composition dimension before realising an *in-time* performance. They are invited to investigate their sound microstructure in depth.
- The sound environment can be a common ground for both acoustic and electro-acoustic performers, a kind of soundscape.
- Very short improvisation on only one sound – pitch, dynamics, duration, timbre or articulation as a starting point.

The real protagonists of GEO were 33 students with different musical backgrounds, selected from:

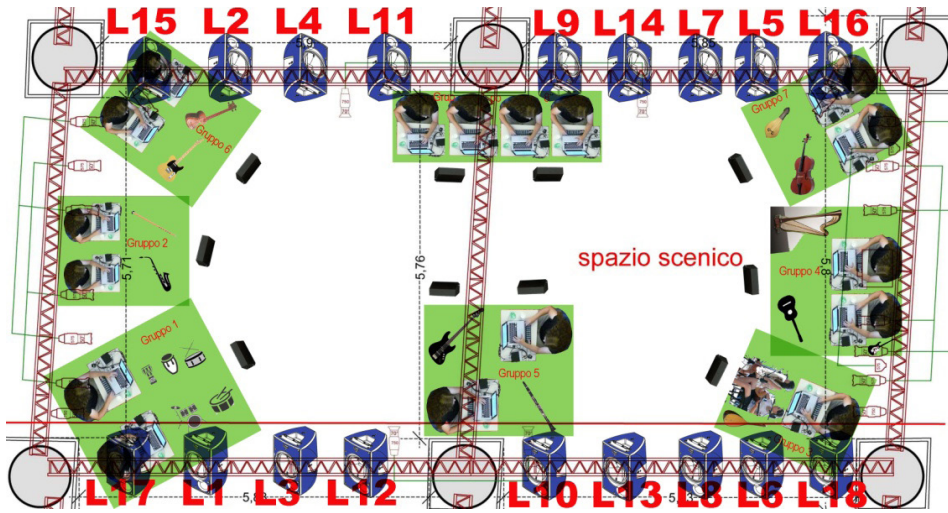
- Classical music (harp and cello)
- Jazz (voice, electric guitar, tenor saxophone)
- Electronic music
- Anatolian folk music (traditional instruments)
- Information technology
- Sardinian traditional folk music (voice and percussion)

The students involved had varying levels of competence in improvisation and, as the project was promoting free improvisation, both the students that had never

improvised and those accustomed to improvising on very rigorous schemes encountered relevant difficulties. To introduce the improvisation experience, the departments of composition and electronic music of the Conservatory of Genoa, organised 'Improvvisa-mente', a joint workshop on different forms of improvisation with lectures and practical sessions. This extracurricular activity helped the students to overcome the difficulty of getting into improvisation and abandon stiffness and prejudice induced by traditional training.

The most considered traditional music throughout the project was of Turkish origin, and it added new timbres as well as new compositional models, not only in terms of pitch and scales, but also in time organisation. This kind of improvisation system highlighted the problems related to the possibilities of playing microtones with Western instruments. For the harpist, for example, the execution of microtones led to technical considerations on the use of the harp itself and to the acquisition of entirely new instrumental skills.

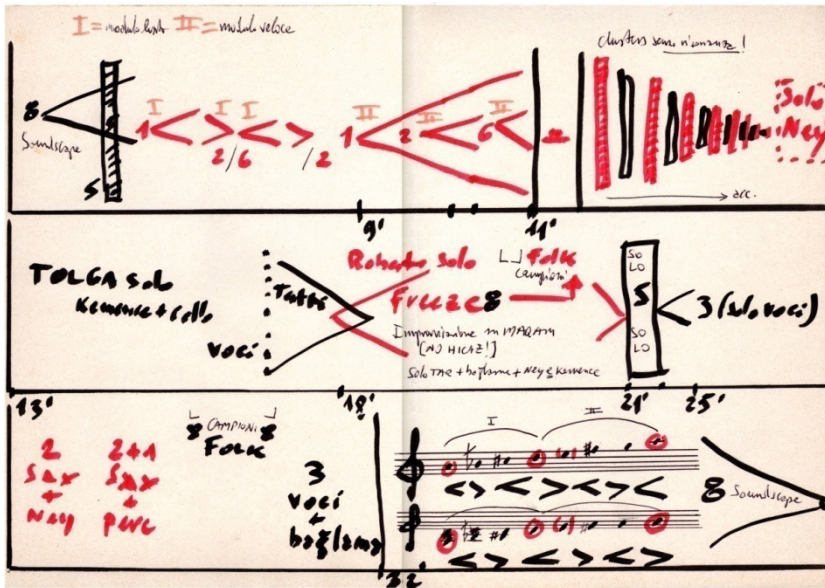
The first stage of the GEO agglomeration, after lectures and workshops, took place by setting up 8 small musical groups with diverse tasks, each following the rule of maximum heterogeneity in terms of musical instruments and cultural identity, on the basis of personal musical choices. GEO students were able to develop affinities and sympathies towards their companions from other countries, with different cultures and musical sensibilities. This was the social and cultural humus in which the eight instrumental groups were formed. The groups had to practise their improvisation in separate rooms under the teacher's supervision, and their task was to realise two different modules, a slow one and a fast one, based on one of the following structural principles: textures, pointillistic structures with short and long single sounds, melodic counterpoint using Turkish makam, interweaving rhythms using folk models, continuity and discontinuity in the compositive materials of the improvisations. This first level of agglomeration allowed the students to feel that they were part of a larger organism whose deep connections were revealed through improvisation and which found its expression in the sound. This experience was reported as the most striking and exciting. Finally a larger ensemble was formed.



GEO disposition

The main idea that animated the final concert was to combine the different musical cultures involved, thanks to digital tools, with a growing use of sonic events coming from the cities itself, integrating the live Harbour sounds in the GEO orchestra performance. They played under the guidance of two conductors, Tolga Tuzun and Roberto Doati, positioned in a way that did not allow them to see each other. Only two groups were free from any direction, having developed complex timbre interchange and formal control.

The real challenge of the project was to guide the students through the practice of collective improvisation. In this kind of activity, the students needed to overcome the concept of instrumental competence to incorporate an empathic attitude and a revolutionary change concerning the time dimension, which ceases to be conventionally agreed on, to become an empathically shared experience in which the performers define their actions joining in a physical and cultural environment.



‘When something nice happened during the improvisation’s rehearsals, we fixed it: I in my score, and Tolgan in his memory’, said Roberto Doati of the genesis of the GEO score, the only written testimony of the two performances of GEO. The score is a highly symbolic graphic space that reveals, not without some difficulty, the compositional procedure of GEO, referring to the actions of the two conductors with two different colours, red and black.

The most evident and symbolic image in this score, recurring often during the piece, is the wave which can be interpreted as an almost ‘genetic’ element of GEO, connecting and vivifying the eight parts to which the score refers. These are the eight small instrumental groups of GEO, with an elementary and physical sound and a super-identity evoked by the action of the laptop that had to capture the sounds diffused by the eight speakers, one for each group, in order to arrange, amplify, mix and return them back to that same environment. This is the alchemical nature of the eight hyperinstruments that GEO originated.

During the period of rehearsals each group had generated a little musical structure, very simple but timbrally connoted, in part suggested by the solicitations of Roberto and Tolgan, in part determined by the nature of the musical instruments involved in the group and, the most creative and interesting, partly arising from the free elaboration of the group. Sounds and rhythmic patterns created by each group built

the compositional elements that Roberto and Tolgan considered, constituting the first important foundation of the entire compositional process we can rightfully call collective composition.

The sound profile of the groups was structured as follows:

- Group 1: 2 percussions and 2 laptops
- Group 2: ney, tenor saxophone and 2 laptops
- Group 3: baglama/female voice, female voice and 1 laptop
- Group 4: baglama, harp, 1 laptop and electric guitar, and 1 laptop
- Group 5: clarinet, electric bass and 2 laptops
- Group 6: tar, electric guitar and 2 laptops
- Group 7: kemençe, cello and 2 laptops
- Group 8: 4 laptops

Group 8, comprising only laptops, was in charge of capturing and processing the Genoa and Istanbul Harbour sounds, receiving just start and stop signals: for this reason preliminary rehearsals were very important in order to determine what kind of interference to create during the concert, when and how.

Each group had to prepare two small improvisations, one slow, with time suspended and piano, and one fast, with a very pulsating rhythm. When the conductor gave an attack to one group, the musicians had to start the improvisation module indicated with one finger (index, slow module) or two fingers (index and medium, fast module). If, after having stopped the module, it was called back, the musicians had to follow their improvisation, i.e. not starting the module again from the beginning.

All groups had to answer the conductor's call carefully, following conventional gestures. Only Group 5 could improvise freely, only starting and finishing according to the conductor's gestures. Here are some examples of gestures, also fixed through a video, which the conductors prepared to facilitate the comprehension of a system of unconventional signs and gestures, and which had to be shared and assimilated during the 10 days of the project:

- Curved arms up: just the acoustic instruments will play, freezing (i.e. not changing) the pitch they are playing in that moment.
- Curved arms down: microtonal pitch changing (free tempo), up and down the main note they were freezing.

- Straight arms up, cupped hands: just the Anatolian acoustic instruments will play, Anatolian music (they can agree what to play all together before the concert or each is free to choose a different melody to improvise) + percussion following the rhythm of the melodic Anatolian instruments (they have enclosed a list of *wazn*, Arabian rhythmic patterns, in a separate file).
- Straight arms up, thumb and index fingers forming an L: just the laptops, they will make a freeze until a straight arms down, thumb and index fingers forming an L: microtonal deviations from the freeze sounds.

The last day of the IC was devoted to rehearsing the guided collective improvisation, *Compasso da Navigare*, to be performed on stage in Genoa's Old Harbour.

In 2014 GEO was invited to the 58th Festival of Contemporary Music at *La Biennale di Venezia* (whose title was *Limes*) by its Artistic Director Ivan Fedele. The GEO Orchestra performed at the *Corderie dell'Arsenale*, the ancient Venetian dockyard. In 2015 *Compasso da Navigare* received a 'Franco Abbiati' Award by the Italian Music Critics Association.

The method and the first phase of the study

This study evolved in two different phases: in the first the GEO project was analysed from an institutional and a structural point of view, and three interviews with two female students and one teacher were carried out. The two students, both Italian, represent two of the musical worlds that GEO connected, classical music and jazz. The third interviewee, Roberto Doati, is the creator of the project, one of the teachers involved in it, and one of the conductors of the two GEO performances. The analysis of these first three interviews allowed us to create a survey consisting of a series of recurring topics that the interviews confirmed to be important and meaningful to the analysis and the comprehension of the project itself.

In the second part of the study the other GEO participants were asked whether they were willing to collaborate by taking part in interviews on Skype. The language proposed to non-Italian interviewees was English, which was the official language of the GEO project, but the initial reactions of the interviewees suggested offering an opportunity to answer in writing to those who did not feel comfortable being interviewed in English. There were 13 respondents to the second phase of the study from

Turkey, Italy and Spain respectively, representing not only the different geographical areas of the Mediterranean involved in the project, but above all the different musical worlds which were brought together by it: jazz, classical music, traditional Turkish music, electronic music and sound engineering, and Sardinian folk music. They were very different because of their educational backgrounds and musical choices as well as their respective nationalities and cultural regions. Yet they were united by only one great challenge: improvisation.

The interviews with the two first students were carried out between December 2017 and January 2018 and highlighted the aspects of their experience that were important both to the role they played at the time and to their continuing musical careers. In particular, they established a first grid of topics to analyse, not only based on theoretical or intuitive perspectives any scholar could express in relation to the GEO project, but based on these two students' opinions and memories. This was the first issue to consider: recovering memories, feelings and thoughts related to an experience which had occurred about six years previously. However, it was the strength of those impressions seeping through the time gap that determined the lucidity of their opinions. More specifically, they both spoke about the strong influence on the need to use their instrument, the harp and the voice, in different ways from those acquired during their training in order to produce different sounds and learn new techniques. The two students reported that the GEO experience changed their way of envisioning their instrument, their performance and their professional profile.

The primary objective of the project was focused on improvisation, intended as a cross-cultural tool: the two students, coming from two very different educational experiences as far as first-hand knowledge of improvisation is concerned, attested their difficulty in overcoming their knowledge. In the classical music world improvisation is not cultivated, while in the world of contemporary music and jazz improvisation plays an important role. Yet it is completely different compared to the GEO project proposal. For the harpist, improvisation had never been considered, because she had received classical and traditional academic training, whereas the singer's background included vocal jazz improvisation.

The third point of specific interest to our study is represented by the performance experience. The two interviews highlighted, on the one hand, the lack of traditional references related to orchestral performance – instrumental group training, strong reference to shared rhythmic models, conventional gesture support from the conductor,

high level of execution predictability – and, on the other, the powerful sense of non-verbal communication based on visual contact and on the ‘in the flow’ condition.

Both students reported a feeling of deep communion with the other musicians, the public and the context, experiencing the two concerts as the most significant and iconic moments of the whole project. Such a pervasive experience of a different way of making music intrinsically changed the meaning of music itself, leading in more than one case to an important life change, choosing to move abroad and completing musical education in a new context.

The key points that consequently generated the survey for all the subsequent interviews were:

- Personal data and background: preliminary information necessary to establish first contact and to understand their cultural, social and specific field of training.
- Pre-enrolment requirements: information aimed at assessing the interviewee’s awareness of his or her training profile and the project he or she was approaching.
- Instrumental insight: specific information on sound production techniques intrinsically linked to the relation with one’s instrument, and the type of instrumental training received.
- Peers and teachers: information related to the intercultural, multilingual and interdisciplinary context proposed by the GEO project.
- Improvisation: specific information concerning the improvisation experience before, during and after the GEO project.
- Performance: information aimed at defining the performing experience before, during and after the GEO project.
- Music: considerations on the concept of music, and how they may be modified by and during the GEO experience.

The intercultural and multilingual context

Although the sharing of such an intense musical experience does not necessarily require a good level of verbal skills, the ability to verbalise, explain, define, express opinions and desires was fundamental especially in the preliminary phase of the GEO

project. The official language of the project was English, and every participant had the essential language skills needed to relate to others and understand the most important content. Obviously, for some of them it was easy, and the project offered an excellent opportunity to verify and practise their English. For others it was an opportunity to improve their language skills, especially for students coming from countries where language training is still not focused enough on the need of the younger generations to master English.

All the interviewees reported very positive feedback as far as interpersonal relationships were concerned, defining them as gratifying and productive from every point of view, especially within their group – one of the eight in which the preparatory activity for the orchestral rehearsals was divided. In addition, everyone noticed that they were changing their way of dealing with and of solving problems as well. Two of the students expressed very similar feedback: in their group they learnt to use the processing programme much faster and better than they could have done in a more traditional teaching context because each member of the group shared their experience and knowledge with everyone else. For example, one student, while chatting with Turkish peer, discovered that flamenco, on which an important part of the research for his PhD was based, had very similar features with popular Turkish musical practice, thus adding an interesting opportunity for further study. Someone recalled how, during the project period, the Turkish musicians were facing a time of great concern about the political unrest in their country, and that they were given the opportunity to explain and share it with the other young people in their group. The result was described by a Turkish student as ‘a kind of improvised round table session during which musical topics were temporarily put aside in order to discuss social policies, the future of the younger generation and professional opportunities in art and music’. The student here described a feeling of commonality with the other students and with the professors, capable of producing proximity and harmony, generating sympathetic tension and producing exceptional results during the performance. Someone added an interesting remark from a communicative point of view by recalling that the teachers succeeded in developing a common language, which allowed everyone, regardless of their cultural origin, to feel part of the project and to be happy to spend not only their working hours and their lessons together, but their evenings, free time and time off, too. Even people with shy and reserved personalities who did not represent the best quality for such an intensive socialising and interactive learning experience recounted how working in mixed and small groups helped them a great deal: it was inevitable that they would learn from each other, whether you wanted to or not. Such a context, with musicians from different linguistic, musical and cultural backgrounds working

collaboratively on new collective performances, profoundly changed the perception of what is known, and redefining in substance and definition the outlines of knowledge: in this experience of inner change originates the need for a new common language.

I would like to conclude this profile of the GEO social and cultural context with an interesting perspective expressed by one of the students, who described the experience of diversity not only as being tolerated but also recognised as a value; as a small but effective example of democracy.

The relationship with the musical instruments

The encounter with the Turkish musical tradition brought forth a change of scenery for the students coming from the tradition of Western art music or jazz, especially as far as the timbre quality of the sound is concerned, and consequently, the technical and gestural changes it required. As one of the students appropriately pointed out, by the end of the project the Western musicians had not learnt to play like the Turkish musicians, and conversely, the musicians from the East had definitely not learnt to play like Western musicians in 10 days. Still, the musicians' sound 'glossary' was so enriched that the concept of sound itself had been subverted, also due to the involvement of electronic musical instruments. The awareness that there were so many vocal and instrumental techniques was the true learning outcome of GEO; this involved in some cases a relevant change from a technical point of view, and changed the musicians as such. Electronic music could invent and modify sounds, but everything had to be decided and planned in advance. If from an improvisational point of view everyone's previous experience was obviously different, at times even deeply so, from an instrumental point of view they all approached the GEO experience with their instrumental expertise which, they all agreed, was adequate to face the executive challenges that GEO would propose. Everyone's role has given everyone the chance, as musicians and/or electronic musicians, to discover new possibilities and to widen their musical knowledge thanks to the interaction with peers and professors.

The challenge also involved a traditional and ancient instrument such as the kemençe, a 3-string Turkish bow instrument, with a different use of the bow as well as without the bow. In addition, interaction with percussionists and with electronic musicians led the kemençe player to focus on the timbre qualities of sounds and on rhythmic variations. For this type of musician, a traditional Turkish instrumentalist, the most

intense experience was playing her traditional instrument using a musical language that is quite different from makam, inspired by nature and the environment, and performing in real time with nature itself. It is the concept of sound itself which is modified and transformed into a dynamic, diachronic, live and converting entity that naturally and necessarily attracts all the instruments and techniques involved.

For the electronic musicians, the instrumental challenge was centred on learning how to use the extremely complex software, *Cosmosf*, which could capture and process both the ambient and the orchestral sounds. Thus, the preparatory meetings organised during the year, before the summer project, were very useful. Some of the collaborations established at the time are still being carried on. For electronic musicians direct contact with traditional musicians and an orchestra is a rare and very precious experience. One of the sound engineers pointed out how in only ten days such different people in terms of culture, origin and background could get together on stage and perform in a concert where everyone knew exactly what to do.

At the heart of sound

Improvisation represented the true GEO challenge for everyone. For those who had never improvised, like the classical musicians, for those who were sure to be capable of it, like the jazz musicians, and for those who thought it was an intrinsic part of their musical training, like the Turkish musicians, GEO embodied such a new experience that it deeply affected the mere concept of creativity, of music and of contemporary music, as well as of improvisation. One of the students made an interesting observation about the interaction between creativity and improvisation. He had always thought that extemporaneousness in musical creation was a utopian idea because in reality there was always strong guidance provided by previous musical experience and by listening to other musicians. The GEO experience partly changed his ideas about this utopia, blurring its contours and allowing him to delve consciously into a kind of illusion favouring a musical creation free from any kind of conditioning. Thus, a sort of musical 'tabula rasa' was realised where the flattened wax represents the previous experience and improvisation establishes new content engravings: flatten to reconstruct, aiming at originality. Hence, improvisation has continued to be an important part of the professional activity of this student, teaching included.

The theme of the relationship between structure and freedom in improvisation was developed into a kaleidoscopic reality of personal experiences. For each of the GEO protagonists, the structure-freedom binomial triggered conflicting thoughts and feelings at times. Someone was convinced that improvisation was whatever is played without a score, even a single sound. During the GEO project this student came to understand the role of structures in improvisation and modified his way of conceiving it, always coming to a decision before starting. As an example, one student declared that he still uses certain strategies and solutions learnt during GEO performances, such as careful management of musical tensions and dynamics.

Conversely, the musicians who were used to improvising in the *taksim* style of makam described a great sense of freedom, especially in the management of musical thought, which stimulated a different approach to performance. Likewise, the jazz improvisers found that they were able to play with their instruments, obtaining a very pleasant and high-quality result from a performative point of view. A sound engineer's comments highlighted the value of structure in improvisation and performance as a guarantee of quality and effectiveness, not only for those who are playing, but also for the audience from a communicative and expressive point of view.

A first hypothesis of synthesis to the binomial structure-freedom in improvisation is represented by the conscious and shared area of freedom of the eight instrumentals groups in the structured performance. Finally, the true conceptual synthesis of this conflict came from a statement which explained the GEO experience imprinted in everyone's mind that 'you are free only in a cage... you can't go ahead if you have unlimited possibilities, you are paralysed'.

The second subject which vigorously emerged from the students' stories was the discovery, the revaluation and the enchantment of the sound. For everyone, although in different ways, the sound was an important basis on which to build the improvisational experience. Considering music as sound had contributed to their growth and change: for example, one student reported that the timbric aspects of the performance required relevant attention and that he could still feel the amazement pervading him when he discovered that no cacophony was generated either during the rehearsals or during the concerts. Each performer was very focused and enfolded by the ambient sounds and at the same time isolated from everything else and concentrated on their own performance. It was a shocking but very pleasant feeling which changed their relationship with the performance radically, introducing time, space and dynamic parameters to the whole performative experience in an overpowering and pervasive

way. According to this idea, the orchestra is conceived as a sound entity in which electronic processing is a kind of shade that deforms and modifies the sound contents, plunging them into their time and place. The sound was the source of great discovery: listening to others more than to yourself, conceiving this listening as perception and comprehension of all the different cultures represented in those sounds, and experiencing through sound the true universality of music.

Teachers' opinions about GEO

The interviews with four teachers and one sound engineer followed the same survey structure. The multicultural GEO context was perceived by the teachers we interviewed as a workshop where cultures and methods met and compared and where the most extraordinarily creative aspect was represented by the differences between the participants: there were musicians playing a Turkish cornet, or a guitar in quarter tones, and Spanish, Italian or Turkish instruments united by the input of technology. Thanks to the innovative and creative software *Cosmosf*, the students had to learn to use achieving results that can be defined heuristic. In the GEO context, the students were able to experience a whole universality of musical languages by means of contemporary improvisational practice. Student autonomy was an important goal and to some extent a prerequisite for innermost comprehension, as was the ability to use the information the students received and absorbed creatively.

The way of viewing one's musical instrument underwent a great deal of reconsideration during the project. Being in constant contact with makam and the microtonal theory of Turkish music led the students to adopt uncommon uses of their instruments, persuading them to search for new sounds. However, the most interesting challenge was to consider the laptop a musical instrument. The role of engineer's group was to set up the microphones at the Galata Harbour in Istanbul, on the top of the Cotton Factory in Genoa and on the roof of his house in Spain in order to capture and transmit them live to the performance venue, processing this material with *Cosmosf*. Not only was it necessary to learn how to use the programme, but also to apply it in real time and in a performative musical context.

The presence of so many new sounds made the improvisation experience much more powerful compared to when it takes place in the comfort zone of the world of sound as we know it, essentially based on consolidated automatic impulses. Everything was

creative due to diversity, which led everybody to confront unexpected sounds. In this unpredictable sound environment, instruments changed roles and lost their references to consolidated performance practices, acquiring a new freedom never taken into consideration before. This type of improvisation made the students extremely flexible and able to process new ideas and sounds, while at the same time broadening their musical syntactic structure (MacDonald, Wilson & Miell, 2012). The performance arising from that experience, merging ideas and styles, can be called collective composition.

Improvisation in GEO made it possible for very different traditions and cultures to coexist in the same place, at the same time and in the same improvised act, creating a structure capable of bringing diversity together. It is not surprising that such an innovative and atypical context established very strong human and sonic connections and that

...the GEO project created a situation where students could go through some doors which they hadn't opened before, and so they were able to investigate the realm of sonic exploration, integrating their instruments into that electro-acoustic context, as witnessed by Sinan Bokesoy, the creator of the GEO project software.

Within the GEO path, the students went through a kind of 'subtraction from the best-known syntactic structures', which meant giving up their certainties. In such a setting, where they lived together all day, every day, without having a single moment to return to their old habits, at all times, they were urged towards and contaminated by change. GEO has left everyone with a new kind of consideration for diversity and has proven that a surprising, challenging and even inhibiting context, compared to acquired certainties, is more effective and more productive in terms of the creative resources that can be developed and achieved.

GEO has taught everyone that diversity can become a method, and in spite of the fact that this experience would be difficult to replicate, it has left 'the scent of what has been a unique experience on the daily efforts of each of us', with the words of one of the teachers.

The institutional aspects

The interview with the GEO project manager Patrizia Conti allowed us to understand its institutional dimension and to place it in the Italian regulatory context. The educational system in Italy is facing an increasing number of difficulties due to insufficient resources. In fact, our institutions, even the proudly virtuous and prosperous ones like the Genoa Conservatory, are seeking a balance between long-lasting tradition, strong demands for renewal, extremely limited economic resources, and what all of this involves. The GEO experience, with its peaks and troughs, has driven us to reconsider the AFAM (Higher Musical and Artistic Education) system, ask specific questions and demand urgent answers. What became clear through working with the GEO project, was that it is not sufficient to get a project funded; a great project like this also needs an institution that is willing to engage in the project and spend internal resources on it.

GEO was conceived and presented to the Erasmus Agency for the first time in the 2006/2007 academic year as part of the European project *Culture 2007*. It failed, but with a very high evaluation. In this first outline, it already bore the name GEO and contained the didactic contents that characterised it from the beginning. The second attempt was instead part of the Intensive Programme, so the presentation had to be more didactic/educational rather than artistic/cultural. In 2011 the preparation of this second project, which had a positive outcome, began, and the Erasmus Agency allocated around €45,000 to GEO.

Under these circumstances, welcoming about 40 people for 10 days and guaranteeing ideal conditions to express the potential of the GEO project was a real challenge. As is often the way, individuals, not institutions, are the ones who meet these challenges. Perhaps the relevance of the GEO project was not fully understood, and administrators and colleagues considered it very expensive compared to the results; no doubt, the administration considered the amount of additional work unmanageable without the extra funds intended to support it. It is difficult now to comprehend the institutional evaluation and choices that preceded the implementation of this project.

However, the Genoa Conservatory finally decided it could not afford to contribute to the project as suggested and that it did not have the human resources to manage it from an administrative point of view. After Patrizia Conti's resignation from the Board of Directors and an assessment of the potential damage that abandoning the project would cause to the conservatory, the governing body decided to proceed provided it

did not affect the budget of the conservatory. In fact, to give GEO the chance to operate, those who set it up and organised it had to do without the allocated funds. The clumsy attempts to rescue such a seriously compromised situation are the reason for the official withdrawal from the second phase of GEO, which had already been accepted by the Erasmus Agency. While GEO was welcomed at the Venice Biennial Festival, thus setting the premises for the prestigious Abbiati Award, the conservatory handed back the funds, and GEO, in one of the student's words, '...fizzled out'.

Several years have gone by, but it is still very sad to recall all of this, despite the Abbiati Award, and all the acknowledgements the project received. With the objectivity that only the passing of time can bring, today we can say that perhaps the GEO project was too big and ambitious for the Conservatory of Genoa, or perhaps it had not been sufficiently shared. Certainly, both these considerations have contributed to the outcome of the project. In any case it is important to reflect on the concomitance of two important prerequisites of good success, a healthy and virtuous institution and an extraordinary project, in relation to an incredible outcome.

This testimony of Patrizia Conti, bears the weight and credit of those who accepted the challenge while being fully aware of the fragility of the institution, who led their conservatory with passion and committal in the first years of the Higher Education challenge and in compliance with the European standards, realistically assessing the risk and personal efforts GEO organisers had to deal with. For this reason, her words do not only represent an outlook on the Italian HME reality, but a heartfelt call.

An innovative experience

The aspects of the GEO project highlighting relevant teaching- learning situations were:

- Disruption of the preferential relationship with a teacher: the teaching relationship was realised in a collaborative setting, the effect of which was that participants did not feel like 'someone's students'. Everyone considered themselves as protagonists and bearers of the necessary knowledge for the growth of the project itself;
- hyperinstrumental conception – instrumentalists experienced a relationship that exceeded the self-centred identity of the traditional soloist or orchestra

member by creating much stronger collective identification where everyone's role is indispensable and strengthened by this new collective entity;

- intercultural and interpersonal dialogue based primarily on an informative and creative exchange, establishing the necessary conditions for a common experience which was able to generate original models;
- empathetic contact through sound: dialogue and exchange enhanced everyone's empathic capacity, which is always involved in group performative processes aimed at collective creation, strong involvement with the public and the overall context;
- space-time conception of a deeply modified experience: the resulting musical involvement is merely conventional and accepted but emphatically taken from a collective experience – over time and in space – that through sound is deformed expanding exponentially;
- creative use of electronic devices in a new concept of sound in which the purity of the vibration and of the physical resonance is not denied or overcome but accepted and synthesised.

The experience of diversity was felt by all participants to be a very powerful way towards change and revitalisation. If the encounter with Turkish music was a constant element of great interest, the time, place and context it occurred in provided a far more pervasive quality to this change, where different cultures, instruments, and even musical languages were searching for a meeting point.

The high-level human relationship was the basis for the effectiveness of the GEO project, improving the performative quality of all the musicians. This relational setting can be described as a kind of musical democracy where everyone becomes more virtuous the moment they embrace it, and what develops from it is higher quality musical outcomes and human experiences. This accepted diversity is the frame of a new kaleidoscopic aesthetic concept in which one's perspective includes, understands and welcomes everyone else's. The fundamental requirement for this diversity to be productive and become a focusing factor was listening. It represented one of the most important learning outcomes for all, especially during the performances, when they felt that listening to what they were playing was much less important than listening to their peers.

The revolutionary power of this type of listening relies on the fact that:

...you do not listen to what is expected to happen, but not being able to foresee what is going to happen, you listen and pay maximum attention, without any preclusion or selection, focusing on the world of sound that you are creating and modifying moment by moment.

So Okan Yaşarlar, one of the students, defined the kind of listening that generates contact and affinity, nourishing the flow state. In this context GEO developed as a cellular organism where every cell had a defined function and at the same time helped to create an organism that was much more than the sum of all its parts, a system within the same shared set of properties.

Finally, the fusion between ancient practices and elements of the musical cultures of so many diverse geographical areas, merged thanks to technology and human agency, has been fundamental to conceiving GEO as a contemporary musical experience. In this definition of the GEO performance as a real-time composition, two creative moments coexist: the creation of musical modules by the hyperinstrumental groups and the moment of the collective improvisation during the concert. Within this fusion the respect for everyone's roots in the present and the future was realised in the name of the effective interaction among different cultures. GEO taught its participants to recognise and respect what in other people comes from their roots and has made them free and independent in music as in life. The revolutionary impact of the GEO project on the lives of many of these young people is highlighted by the fact that many of them have chosen to leave their country to find new inspiration, effective responses to their needs, and to meet major challenges.

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