Ethnography of Recording Studios

Edited by Giovanni Giuriati and Serena Facci

Istituto Interculturale
di Studi Musicali
Comparati

fondazione
Giorgio Cini onlus

Istituto Interculturale di Studi Musicali Comparati
ISBN 9788896445273

Editorial staff: Chiara Picardi and Costantino Vecchi

Cover image: Andrea Pisu, launeddas player, in the recording studio of Antonio Navarra (Villaputzu). Ph. Marco Lutzu

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Ethnography of Recording Studios: an Introduction

Giovanni Giuriati and Serena Facci

This edited volume stems from the International Seminar that the Intercultural Institute for Comparative Music Studies of the Fondazione Giorgio Cini ('Musiche e Musicologie del XXI Secolo') devoted to the topic of 'Ethnography of Recording Studios'. The Seminar took place between January 24-26, 2019 and it was then decided to publish an on-line volume with a revised version of some of the papers presented, incorporating the lively discussion that occurred over the three days. In this Introduction we take up the main points of the debate and reflect upon the outcome of the Seminar that went beyond all expectations, adding the themes, case-studies, and theoretical reflections that were put forward during the seminar.

It is important to point out that the chosen theme did not emerge from our personal direct involvement in such research or from familiarity with recording studio practices; we have not specifically dealt with this issue in our studies. However, we came to realise, mainly through teaching the students on our Master's and PhD courses, that carrying out ethnographic research in a recording studio is an issue that is becoming increasingly relevant in their research and, more in general, in the field of ethnomusicology. This has happened because our object of study is consistently shifting to encompass issues that relate to music and technology, music and the record industry, and new forms of sociality that are shaped through the mediatization of music. A specific aim of the Seminars we organise at the Fondazione Giorgio Cini, which have been ongoing for twenty-five years (the first twenty editions curated by Francesco Giannattasio), is to address issues that are at the core of international debate in our field and to take up themes that are of interest to our students. Ethnography of recording studios gives centre stage to the idea that a recording studio can be a perfect place to conduct proper ethnography, as it can be done in a village or in a given community anywhere in the world. It seemed a perfect theme, as this topic has become central in our field due to the increasing mediatization of the so-called music traditions through the use of technology and music reproduction. A perfect theme that also lies at the intersection between ethnomusicology and popular music studies and which is of great interest for most of our students (this publication is also intended for university students).

While emphasising the relevance of these issues for contemporary research, we also realised that such topics were already very important at the time when we were starting our research in the 1970s and 1980s. Technology and music reproduction were already widely used in the contexts where we performed our research, be it on Italian folk music or on the musical cultures of Asia and Africa. However, we are aware that, according to the main trends of our discipline at that time, we tended to discard them as 'non authentic' and not at the core of our research. With regard to this, let us relate an anecdote taken from the experience of Giovanni

Giuriati in the 1980s when he was in Washington D.C. for his doctoral studies. At that time, he was doing research on the Khmer music played by a group of refugees with whom he spent a great deal of time. There was one musician in particular, Van Pok, who loved recording and was constantly documenting the repertoires and his musical performances (solo and in ensemble) with the rudimentary means at his disposal. For example, he used a home-made system of a multi-track recorder to tape pieces on which he played all the instruments, one after the other, overdubbing. And it was striking to see the amazement and delight of the Khmer musicians when they were taken to the University of Maryland Baltimore County recording studio to make some recordings for research purposes (transcription) and of which they were then given a copy. Compared to our ethnography of 'live' performances we considered these instances as accessory elements which were totally overlooked, but they could very easily have been considered research priorities.

This anecdote serves merely to stress the fact that in this volume we are dealing with questions that a 'classical' ethnomusicology concentrating on 'traditional' contexts in an essentialistic perspective neglected for a long time, even in contexts that were hybrid from the start. However, they were already present from the very moment when tape recorders and the record industries started being used to document and to promote musical traditions all over the world.

The reluctance to face the question for some of us did not however prevent this field of studies from becoming a fertile research ground in the past.

As we were preparing the seminar, we realised just how many colleagues - from both ethnomusicology and popular music studies – had looked in past decades and in different ways at the same set of issues we discussed in Venice. And as often happens, studies were carried out in an interdisciplinary sphere - fully justified by the topic - that ranges from ethnomusicology to popular music studies and media studies. Three important names may be cited here, by way of example, starting with Georgina Born and her seminal research on IRCAM (Born 1995), and her more recent research incursions into the world of multimedia production from a perspective that combines methods of anthropology, sociology, and media studies (Born 2009). Another important essay that was one of the first to deal with methodological issues is *Ethnography and popular music studies* by Sara Cohen (1993) a paper that, although not focused on recording studios, addresses the issue of ethnography as applied to popular music studies. Finally, Thomas Turino, who in his *Music as Social Life* (Turino 2008), drew up a typology of music making in which live and recorded performances are both taken into consideration in the same coherent model that can be considered as a fundamental reference for the debate that we intended to stir in the Seminar. The 21st Century has seen the publication of seminal work more specifically addressing the issue of ethnography of recording studios - to which the chapters in this volume also repeatedly refer. Among others, let us just mention Taylor (2001), Zak (2001), Green and Pocello, eds. (2005), Wallach (2008), Scales (2012), Zagorski-Thomas (2014) and Bates (2016). Significant contributions in a more strictly ethnomusicological field come from the work by Turino, *Nationalists, Cosmopolitans, and Popular Music in Zimbabwe* (Turino 2000) or *Sound of Africa!* (Meintjes 2003). Such studies have become essential references for anyone intending to work in this field of research.

The relevance of this subject is also attested by a number of other recent European and American studies. Alessandro Bratus makes partial reference to them in his article, especially in relation to popular music studies. However, even in this wealth of literature, we realised that perhaps there was still need for some specific research on this topic from an ethnographic point of view that stands at the core of the relationship between music and technology. The significant work done by Bates in Istanbul (2016) is certainly a reference point, but we thought that this volume could provide a further refined ethnographic approach adding case-studies and new perspectives.

In order to find a working definition of ethnography to be used as a reference point during our work, we referred to the anthropologists Remotti and Fabietti, editors of a *Dizionario di Antropologia* (1997). For Roberto Malighetti, author of the entry, ethnography consists of: «prolonged periods in direct contact with the object of study» with studies that involve participant-observation and the holistic study of the culture, more and more through a perspective

of dialogical, collaborative and reflexive anthropology. Over the last decades the tendencies of ethnographic research have problematised fieldwork, noting how the experience is always «more complex than its representation» and reflecting on the «asymmetry and political-economic disparity implicit in the meeting in the field» (Malighetti 1997: 274-276).

In line with this definition, recording studios and the record industry have often been considered – in ethnographies - as places where a certain asymmetry of power is manifested, as places of the packaging of 'inauthentic' mainstream music, of control of the means of production and of the prevalence of capitalist and profit logics. Even if this aspect is undoubtedly important, what we are more interested is, on the contrary, the interpersonal, human, creative, and culturally specific dimension of these processes to be observed by means of more or less prolonged participant-observation. Processes that led to music creation in a specific way that we intended to explore.

Furthermore, as regards the value of ethnography, let us cite a text dating from 1981, which could be useful in elucidating what we intended to discuss in this volume, also because it is by John Blacking, a scholar dear to us and a great authority in the field of anthropology of music. Blacking writes:

> Ethnography is a scientific description, and what appears to be its major weakness, namely its inclusion of variously perceived data that may seem too vague and fuzzy to a musicologist, is in fact its greatest strength and its prior claim to scientific validity. The scientific potential of ethnography is not always appreciated, and it can seem particularly confusing and irrelevant when set beside apparently rigorous analyses, in which the logic of musical structures is exposed for all to see, like the structure of a crystal or a protein. The scientific rigour of many musical analyses is, in fact, illusory. The chief difference between a musicological analysis and a chemical analysis is that, like any other analysis in the human sciences, it may be there for all to see, but it is not necessary there for all to feel: and if the analytical 'experiment' cannot be replicated, it cannot be regarded as scientific. Until a musical analysis can be validated by the corroborative experience of performers and listeners, it remains as it began: an ethnic view of a musical structure which does not necessarily have any more validity than other ethnic views (Blacking 1981: 384).

Blacking reminds us of the subtlety of the interpersonal, relational nature of ethnography, of the not always measurable nature of feeling and perception. But he also stresses that it is to be considered 'scientific' to all effects and part of an analytical methodology that may be illusory if it strays from this aspect and, if not validated by the experience of relation and interaction, substantially (and paradoxically) 'ethnic' and therefore partial. We think that this is an important reference for reflections in a perspective of interdisciplinary comparison.

Another aspect that concerned the seminar is the analysis of the recording studio as a specific place of music creation and production, with all its peculiarities, including the roles of the agents working there and the interactions that are created at personal, relational, cultural, and social levels. The recording studio, therefore, is in some ways an ideal place to conduct ethnographic research, a circumscribed and more or less spatially defined place of social interaction, cultural production, exchange of skills, and relationships with technologies. The chapters in this volume each investigate in their own way this place for sound production by developing specific research methodologies and presenting different perspectives through the consideration of very diverse case studies.

This volume also suggests the idea that a recording studio could be 'deconstructed' into specific places, each with its own peculiarities, its own architectural and space distribution concepts, its own technologies, the result of investment capacities and constantly changing production philosophies. And it is also made up of different musical and cultural settings that include the production and reproduction of musical objects which are also very different from each other: records, film soundtracks, original creations of composers. In other words, one can consider the recording studio as a multiple and complex place at the centre of contemporary music production, including specific social relations. A recording studio can be considered, as Louise Meintjes claims: «a microcosm of the society within which it exists» (Meintjes 2003: 9), that is, with the characteristic social dynamics, power imbalances included, which can be found in the societies where such recording studios are located.

It is somewhat paradoxical but also very interesting to note however that in some of the

chapters and during the seminar discussion, it clearly appears that the object commonly defined as a 'recording studio' cannot be taken for granted. Rather, it is a product of a given historical moment, which is somehow already being surpassed, with the development of increasing flexible technologies that allow even more focused and place-bound productions. Such new modes of production are often needed to access the global mediatized music market, as Cosentino's article highlights. In a sense, we have focused our attention on a phenomenon that is already partly superseded by new modes of music production, although for us ethnomusicologists it might, on the contrary, have seemed 'new'. Bratus, Meandri, and especially Wallach have drawn attention to the fact that the recording studio should be considered as part of an ethnographic work that can be much broader, and that the recording studio, while remaining almost a fetish and a coagulating place of creative energies and technologies, should be considered as one of the places where contemporary musics are conceived and produced in continuous interaction with other contexts. Highly fragmented production in different places has long been the order of the day, as Bates well describes in his essay. This plurality of places also corresponds to a heterogeneous plurality of professional figures (musicians or technicians) who have each developed their skills and sensibilities in different ways. There is thus an increasingly cogent need to consider our ethnography as multi-sited, borrowing the concept expressed by George Marcus a few decades ago (Marcus 1995). However, as Wallach points out in his chapter, a virtual circulation of music now increasingly prevails that takes us beyond the concept of a specific place of music production. The music that is now being shared on the Web, precisely because of technology, constitutes a new field of ethnographic inquiry that can fruitfully be applied to virtual contexts in which sounds are produced and shared.

It should also be pointed out that this book stems from a conference preceding the COVID 2019 pandemic. The latter pushed the accelerator on new and different forms of music making. It particularly impacted live performances (Agamennone, Palma and Sarno eds. 2023). At the same time, such new forms helped to bring to the fore of the media scene many of the unseen practices that are usual in recording studios (e.g., musicians in an informal attitude, presence of technical equipment for capturing rather than amplifying sounds, etc.). Technical solutions for the remote interaction of musicians with each other and with technicians were also implemented and will be increasingly used from now on in music production.

Another issue developed by the authors, especially in the chapters written by Meandri and Vecchiarelli, is that of the relationship between aesthetics and technology, given that we are now well aware of how a given sound is the product of a confluence of technology and professional figures - some still to be 'discovered' from the point of view of our research – who are not just musicians.

Particularly significant in this regard is the parable of the Foley artists Meandri reports on in his essay. Professional figures who coming from the theatre found their own space primarily in recording studios during the 20th century, only to then experience a profound and probably irreversible crisis with the advent of sampling and digital technologies. Furthermore, a common element in many chapters is the investigation into the nature of a specific sound that originates in the recording studio and develops in that specific context by establishing relationships with 'live' sounds. Such relationships vary from procedures that attempt to mimic live sounds, including the virtual reconstruction of the acoustics of certain locations, to others that deliberately ignore mimesis and aim to create sounds that were once called 'artificial', entirely new and 'un-heard of'.

In the light of the venue of the Seminar, that is an Institute of Comparative Music Studies, another consideration can be made about our role as researchers with an ethnomusicological background,

On the one hand, any one of us who pursues the 'traditional' profession of the ethnomusicologist has always found that the musicians who are our interlocutors (now even more so) are interested in the applications of technology to the music of oral tradition as in the case of the research carried out by Arom and his team on the intonations of the African scales (Arom, Fernando, and Marandola 2005). Such an interest, however, for some time did not actually

lead many of us to take the next step; that is, to confront ourselves directly with the question of the technology of mediated and reproduced sound. While this is certainly a weakness, the merit of such a stance may likely have been that of ensuring that we have continued to explore a ground: that of traditional oral music which is still in use in its originary contexts, the music which has always pertained to us ethnomusicologists, along with the task of comparison. In this sense, what Turino writes in his article is most significant, renewing his seminal considerations (Turino 2008) on his field research on non-mainstream contexts, and on his comparative perspective, which keeps live and studio performances together.

On the other hand, let us note that, especially in the Anglo-Saxon world, ethnomusicology has developed in recent years taking for granted the shift to a media driven technological world in which research should by now have abandoned orality and live musical performances as a relic of the past and concentrating, rather, on contemporary music detached from the 'classical' discourse of ethnomusicology.

What we are aiming to achieve with this edited volume, in line with an Italian approach to the field, is an attempt to keep together and reconnect the two moments: the live performances of music of oral tradition in its context (that still exist and function) with the contemporary global world of recorded music, driven by technology. And we are also trying to combine two kinds of skills: our skills as 'classical' ethnomusicologists with those of scholars of contemporary music.

What could our most original and most specific contribution as ethnomusicologists be in relation to specialists of popular music studies in exploring the fast and dramatic changes of our object of study? It would be a pity to throw the baby out with the bath water, that is to say all that we know of the oral tradition and music in its traditional context, along with change and modernity. And, in increasingly outmoded disciplinary terms, to discard the contribution that the 'old' ethnomusicology may give to renewed studies of popular music that take into account the anthropological and transcultural perspective.

In this volume, the interdisciplinary dialogue between colleagues from different parts of the world and from diversified disciplinary backgrounds within the general field of musicology can contribute to clarifying some issues. It may also be able to help us, since it seems to us that their way of seeing the question is based on premises in which the ethnomusicological or anthropological-musical perspective is closely linked to a reflection on the contemporary global music scene, specifically on sound in its cultural and social dimension.

Ethnomusicologists, who have always been concerned with living music, must contend with the continuous redefinition of the places and practices of musical production. In this perspective this volume shows how the recording studio itself may be considered a privileged place of research for building interpretive models of contemporary music that combine 'classical' questions of ethnomusicological research (creative and performance processes, status of the musician) with new questions raised by the changed context in which it takes place (lack of a direct audience, relationship with increasingly sophisticated technology, delocalisation and fragmentation of the work group, the creative role of professional figures other than the musician). Furthermore, an ethnographic study of a recording studio may contribute to the identification of the role of such iconic spaces in a post-colonial era of the dispersal and propagation of technologies, starting from the very definition of what a recording studio is today and what the privileged places of contemporary popular music production are in various parts of the world (Bates, Lutzu and Cosentino contribute to this topic with their case-studies).

Another underlying issue that is common to most of the chapters in this book is a diachronic perspective, both in long time scales that span over nearly a century, but also in fast changing short-term ones, in view of the dramatic changes that have taken place in several aspects that have affected recording studio practices and technologies in the space of just a few years. To add another personal anecdote here, let us recall the fact that in 2005 Serena Facci organised a conference in Cremona together with Gianmario Borio entitled *Composition and Experimentation in British Rock, from 1966 to 1976* (Borio, Facci 2007). One of the conference sessions was obviously dedicated specifically to technology. Indeed, many innovations were decisive for that important period of rock music, now recognised as part of the musical canon of the 20th

century. One only needs to think of stereo, multitrack recording and the development of many electric and electronic instruments. But papers delivered in other sessions also focused on the role of recording studios, which, thanks also to major investments, became places not only where sounds are engraved, but also of collective musical research and creation.

Nearly two decades have passed from that extraordinary season of popular music. The spheres of production and enjoyment of music have not only changed thanks to the development of information technology and the Internet, but have 'exploded' and, as Simon Reynolds (2011) would say, are infected with retromania. Even the very concept of the 'record label', with its commercial aspects, has changed. The possibilities of self-productions have increased incredibly along with those of self-promotion through the social web. We scholars can now count on a considerable amount of research, books and articles, and today's studies are no longer those of the 1970s and not even those of 2005.

But the presence in this volume of ethnomusicologists with multiple experiences of field research (the case of Turino being exemplary) leads us to further considerations. For example, the phenomenon will be observed in a very wide spectrum and without exceptions. Extremely professional experiences (like that of the Italian sound engineer, producer, and musician Pasquale Minieri who participated in the Seminar) and others taking place in small studios, like those of Botswana and Sardinia presented by Alessandro Cosentino, and by Marco Lutzu, or in other parts of the world, as in the case proposed by Eliot Bates, will be looked at with their own peculiarities, but on the same level. Furthermore, particular emphasis will come from our familiarity with the ethnography of places (here one might mention the seminal work carried out by Steven Feld – 1996), as essential for the contextualisation of the music-making. The studios in the Seminar and in this book have not been considered as 'non places'. Over the course of the 20th century (and the experiences drawn from history like those described by Ilario Meandri and Marco Lutzu are prime examples) they have become one of the possible places in which musicians express their music making. And also, a place where they spend a part of their life.

In concluding this brief introduction, it might be useful to go back to the origins of recording studios and present two brief descriptions of how singers and musicians worked in these studios at the turn of the 19th century. The great physical effort required on the part of the performers who had to shout into the funnels in those small spaces becomes tangible in the colourful diaries of two comedian-singers.

The first extract is by the famous French comedian-singer Charlus, one of the 'forced' music labourers of late nineteenth-century recording:

> ([...] Quand je commençai mon "travail" au phonographe, en 1896, on enregistrait trois cylindres d'un coup. Il y avait pour cela trois appareils fonctionnant ensemble dans la salle d'enregistrement, reliés par des tubes en caoutchouc à un seul pavillon devant lequel chantait l'interprète)
>
> [...] j'ai été enregistré chez PATHÉ plus de quatre-vingt mille fois, répétant jusqu'à deux mille fois la même chanson. C'était le temps où les cylindres vendus dans le commerce étaient gravés à raison de quatre à la fois. On ne les multipliait pas encore par le procédé de montage qui ne fut employé chez nous qu'en 1900 (Charlus 1950).

The second is by the songwriter Rodolfo De Angelis, so dear to Italian ethnomusicologists for having set up the first sound archive in our country, the Discoteca di Stato (Italian National Sound Archive):

> In that period [...] I also had the chance to record gramophone records. At "Pathé Freres", under the guidance of Virgilio Ranzato, the whole new repertoire was recorded on cylindrical discs. You had to learn each song and record it in ten minutes. There was so much noise from the orchestra in that little room, that whoever made the most noise got the attention. The microphones then were not very sensitive. Luckily the Pathé patent allowed what had been blared out to be heard immediately. But nothing was very subtle. A few days after the recording, by buying a token for twenty cents, you could listen in the gallery to your own record in the listening room, always full of busy people, by way of two telephone receivers. You sat in front of the apparatus, dialled the number requested and below, in the basements, the young ladies played the record on gramophones with enormous horns. When the number requested was no longer in the catalogue, they played you whatever they wanted (De Angelis 1940: 200).

From the very beginning, a studio recording activity was a very particular life experience for the musicians. It could be exciting but also very stressful. It is during the long (or far too short) time spent there, that their 'embodied' music is recorded for an unpredictable audience. It is an important and delicate part of their job and in the dialogue with composers, singers, instrumentalists and musical engineers, an ethnomusicologist must also consider these personal aspects.

All the authors offer an important theoretical contribution to the scientific debate about the ethnographic approach to recording studios. A significant part of all the contributions is devoted to methodology, including observation, interviews and dialogues, auto-ethnography and multi-sited research. The cases presented show a variety of situations in terms of places, times and musical genres.

Turino's chapter revisits his four fields of music making (participatory, presentational, high fidelity, studio audio art) in the light of his ethnographic experience of recordings made both in the field and in recording studios. It provides a framework and important cues for an ethnomusicological approach to the research on recording studios by highlighting the specific ontology of recorded music and the importance of an ethnographic approach that aims to untangle the variables at stake in understanding people's relations to different kinds of music making.

In his chapter, Bratus presents a broad overview of scholarly approaches that have focused on the recording studio, both in the field of ethnomusicology and popular music studies. The chapter focuses on how ethnography has proved to be a crucial tool for assessing the way the issues of the cultural and social valence of sound and the modes of production of the physical artefacts used to preserve it are addressed in a recording studio.

In relation to this, we may also observe that this topic, notwithstanding the ethnographic approach that seems to suggest the opposite, has a strong historiographic dimension, since recording studios and recording practices have a history that goes back almost 150 years. In his chapter Jeremy Wallach puts forward the idea that the recording studio was the most historically significant musical instrument of the 20th century, a place where original creation occurs through social encounters, but also where technology is used to create a simulacrum of social encounter for the listener/consumer to be able to identify with, thus producing emphatic reactions. Wallach focuses mostly on the (actual and virtual) sociality and empathy that are a vital part of recording studios and the driving force behind the frictional interaction from which great art is made.

Furthermore, Wallach rightly reminds us that nowadays recording studios are somehow becoming an obsolete object of study, since technology is fast improving.

The cases presented by Marco Lutzu all deal with Sardinia. The impressive heritage of local music recordings, which began to be made as early as the beginning of the 20th century, has allowed Lutzu to develop an articulate case history and to reflect on the methodologies necessary to deal with the different examples examined. From the earliest 78rpm recordings made by Efisio Melis with his launeddas, and by Gavino Gabriel with Dorgali's tenor singing group, to more recent recordings of confraternal singing in Bosa, Sardinian musicians have tried to faithfully reproduce their repertoire and their sound by adapting to the limitations of the new medium while exploiting its gradually increasing sophisticated potential. The case of the Aggius group is a clear example of the nonchalant use of traditional compositional practices to meet the various commercial demands of record production.

Ilario Meandri shifts the focus to sound creation in film production. He takes a diachronic and reflective approach to the possibilities of applying the ethnographic method in such a context. Powdermaker's (1950) and Faulkner's (1971; 1983) studies on Hollywood then become an opportunity to understand which sources (including controversial but significant

anecdotes) and approaches are effective for ethnographic research in the sub-community of professionals working on soundtracks. The second case he analyses concerns the Foley artists who worked at the 'International Recording' Studio in Rome for the post-production of major films from the 1950s onward. Meandri has analysed the topic at length in the past. In his chapter in this book, he provides a detailed description of the mixture of technology and ingenious empirical solutions that lay behind the creation of sound effects, which only a thorough combination of archival investigation and oral sources could bring to light.

The work in the recording studio by one of Italy's most important singer/songwriters, Fabrizio De André, is the subject of Vera Vecchiarelli's chapter. Through an analysis of the materials contained in the Archivio Fabrizio De André in Siena and the crucial testimony of sound engineers Maurizio Camagna and Paolo Iafelice, Vecchiarelli describes the recording sessions for De André's last album, 'Anime Salve', dwelling especially on the meticulous production of the vocal track.

When Bates writes that *Yıldızlar Kuşandık* came not from *a studio* but was rather the result of *distributed production* and *heterogeneous assemblage,* he was also referring to the fast-changing concept of what a recording studio actually is. His ethnography does not limit itself to Istanbul's Kalan Stüdyo, which is nevertheless a source of stimulating observations regarding the relationship between the needs of local musics and certain technological fetishes of international provenance. His chapter well describes and outlines the complex processing of the album that was partly produced in Germany. More broadly, Bates questions how ethnomusicology can develop tools and methods to elaborate an ethnography that is attentive to both the lived experience of materiality and digital materiality, that is the always different and culturally specific interaction between humans working in different capacities within the sphere of a recording studio, and technologies that are specific to each recording place.

Finally, in his chapter on guitarists in Botswana and Malawi, Alessandro Cosentino presents the production scene in Southern Africa from the 1960s onwards. This ranges from radio stations to the famous Downtown Studio in Johannesburg (Meintjes 2003), from the smaller studios that sprung up locally and were used for self-productions, up to festivals and competitions during which musicians also used studio-recorded tracks. Through analysis and interviews, Cosentino applies the categories proposed by Turino (2008) to his case-studies to present the experience and the reflexive considerations of these musicians who alternate between hi-fidelity intimate solos either sung or performed on an acoustic guitar and more complex versions of their songs produced in the studio for an international scene.

As is customary in this online series, both video and audio sound exemplifications are an integral part of several chapters. The various links enable the reader to better understand the authors' argumentation and take full advantage of the multimedia potential of the computer medium.

References

AGAMENNONE, Maurizio, Daniele PALMA and Giulia SARNO (eds.)
2023 *Sounds of the Pandemic: Accounts, Experiences, Perspectives in Times of COVID-19*, Routledge, Abington, New York

AROM, Simha, Nathalie FERNANDO and Fabrice MARANDOLA,
2005 *An innovative method for the Study of African Musical Scales: Cognitive and Technical Aspect*, in Rimantas, Astrauskas (ed.), *Traditional music and Research in the Baltic Area-New approaches in Ethnomusicology*, Lituanian Academy of Music and Theatre, Vilnius, pp. 161-173

BATES, Eliot
2016 *Digital Tradition: Arrangement and Labor in Instanbul's Recording Studio Culture* Oxford University Press, Oxford-New York

BORIO, Gianmario and Serena FACCI (eds.)
2007 *Composition and Experimentation in British Rock, from 1966 to 1976, Philomusica online*, Special Issue, http://www-9.unipv.it/britishrock1966-1976/index.htm, last access December 28th, 2023

BORN, Georgina
1995 *Rationalizing culture: IRCAM, Boulez, and the institutionalization of the musical avant-garde*, University of Califronia Press, Los Angeles
2009 'Afterword. Recording: From Reproduction to Representation to Remediation' in Rink, John, Nicholas Cook, Eric Clarke, Daniel Leech-Wilkinson, eds., *The Cambridge Companion to Recorded Music*, Cambridge University Press, London and Cambridge: 286-304

CHARLUS
1950 *En marge du 50me anniversaire de Pathé*, in *J'ai chanté. Souvenirs de Charlus*, Recueillis et pesentés par J.M Gilbert, *Le Progrès de l'Oise,* Paris, online version: www.dutempsdescerisesauxfeuillesmortes.net/fiches_bio/charlus/charlus_en_marge_du_50_e_pathe.htm (last access December 28th, 2023)

DE ANGELIS, Rodolfo
1940 *Caffè-concerto. Memorie di un canzonettista*, Edizioni S.A.C.S.E, Milano

FELD, Steven
1996 'Waterfalls of song. An Acoustemology of Place Resounding in Bosavi, Papua New Guinea' in Feld, Steven and Keith H. Basso, (eds.), *Senses of Place*, School of American Research, Santa Fé: 91-135

GREENE, Paul D. and Thomas PORCELLO (eds.)
2005 *Wired for Sound: engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown, CT

MALIGHETTI, Roberto
1997 'Etnografia' in Fabietti Ugo and Francesco Remotti (eds.) *Dizionario di antropologia*, Zanichelli, Bologna: 274-276

MARCUS, George E.
1995 'Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography, *Annual Review of Anthropology* XXIV: 95-117

MEINTJES, Louise
2003 *Sound of Africa! Making Music Zulu in a South African Studio*, Duke University Press, Chapel Hill, NC

REYNOLDS, Simon,
2011 *Retromania: Pop Culture's Addiction to Its Own Past*, Faber and Faber, London

SCALES, Christopher
2012 *Recording Culture: Powwow Music and the Aboriginal Recording Industry on the Northern Plains,* Duke University Press, Chapel Hill, NC

TAYLOR, Timothy D.
2001 *Strange Sounds. Music, Technology, and Culture*, Routledge, New York-London

TURINO, Thomas
2000 *Nationalists, Cosmopolitans, and Popular Music in Zimbabwe,* University of Chicago Press, Chicago
2008 *Music and Social Life: The Politics of Participation,* University of Chicago Press, Chicago

ZAGORSKI-THOMAS, Simon
2014 *The Musicology of Record Production*, Cambridge University Press, Cambridge

ZAK, Albin J. III
2001 *The Poetics of Rock: Cutting Tracks, Making Records,* University of California Press, Berkeley

WALLACH, Jeremy
2008 *Modern Noise, Fluid Genres: Popular Music in Indonesia, 1997-2001*, The University of Wisconsin Press, Madison

Recording as Representation/Recording as Musical Creation: Distinct Ontologies in Four Musical Fields

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In this paper I comment on *ontologies* (ideologies or philosophies about the existential nature of something) of recorded music in relation to 'live music' which I define as 'real-time performance among people present in face-to-face situations'. As has been suggested before, the very concept of 'live music' as a distinct type is totally dependent on the advent and ascendancy of recorded music. Before recordings, all music was live and so did not need to be marked. Linguistic theory tells us that marked terms suggest a less common, primary, or dominant status (man/*wo*man; American/Asian American), with unmarked terms representing the doxic, the unnoticed, the commonsensical, the powerful. Thus, restaurants and clubs advertising 'live music' is but one clear indicator of the preeminent position recorded music has attained in many cosmopolitan societies - the ubiquitous presence of recorded music in all sorts of establishments 'goes without saying'. It also goes without saying that recorded music, the most easily commodified type, *would* gain ascendancy in capitalist-cosmopolitan societies.[1]

The different cultural meanings and uses attached to recordings seem like obvious points of departure for the ethnography of recording studios, and so I will consider recording in fairly broad ways. The discussion is underpinned by the framework of *four fields of music making* that I began to theorize in the early 1990s, introduced in 2000, and published in its most complete form in 2008. For live music the two fields suggested were *participatory performance* and *presentational performance*, and for making recordings the two fields were *high fidelity and studio audio art*. People who have responded to this work have found the live music fields most useful, and the recording fields have largely been ignored. In this article I want to flesh out the recording fields further to think about ontologies of recordings in various societies, for various types of recording, and for various musical genres.

1 I use the term 'cosmopolitan' to denote a particular type of cultural formation of which there are various specific exemplars (e.g., capitalist-cosmopolitan, socialist-cosmopolitan, Islamic-cosmopolitan) akin to the way the term 'diaspora' functions (Jewish diaspora, African diaspora) as I elaborate in Turino (2000; 2008).

When considering the ethnography of recording studios as a general topic, the number of variables and the variety of goals for undertaking such ethnographic work appear staggering. A few of the prominent variables and issues that surface in ethnomusicological studies of studios, and which I will at least touch on, are:

1. conceptions about music and recording in the society or social cohort involved.
2. the goals for making particular recordings both by performers and recordists—more specifically, why do people want to record in the first place, and how do they feel about the process?
3. the structures and scope of the *network* in which recording takes place. I borrow the term network from Jon Sterne who writes 'Any medium of sound reproduction is an apparatus, a network—a whole set of relations, practices, people, and technologies' (Sterne 2003: 225). The network involves all the different connected roles: musician, producer, engineer, listener, consumer, manufacturer of the technology, etc. If the same producer and artist target specifically different markets, say a native market and a tourist market, these, then, represent partially different networks.
4. A major concern for ethnomusicologists has been the social and artistic positioning, economics, and power relations in play in the studio, in the network, and in the society where the studio operates, as have
5. the ideologies that frame judgments about quality and/or authenticity for given musical genres vis-a-vis recording and
6. ideologies that frame and practices involved in different genres and processes of recording, e.g., studio recording, field recording, live-concert recording, self-cellphone recording, and others (each involving a range of approaches and practices) and finally,
7. what Jon Sterne and Chris Scales, following Barthes, have termed '*the grain*' of the recording. The grain of the recording is the sound of the recording apparatus. It has been suggested that along with, and often linked to, musical genres there are traditions of specific sonic qualities of recordings that define what we *want* particular types of recordings to sound like due to past experience. Moreover, individual studios often produce and are known for a particular grain of recording due to their specific practices and physical spaces.

Ontologies of Music, Ontologies of Recordings

When I did field research in the rural district of Conima in southern Peru in the mid-1980s, daily life was strikingly quiet. Trucks carrying goods and people between Peru and Bolivia on the dirt road that threaded around Lake Titicaca would pass through a few times a week. The indigenous Aymara people in Conima still used a pre-columbian-styled digging stick or animals to tend their fields rather than machines. There was no electricity or mail service, and no locally owned cars. The family I lived with had a transistor radio that they would play briefly after dinner at a low volume, they said, to save batteries. Some people owned battery-powered cassette boom boxes, but these were rarely heard, again for economic reasons, to save batteries. Most days, wind, birds, cattle, dogs, and low-key human conversation were the main sounds heard.

This oppressive quiet was countered on the average of once a month by community and district-wide festivals, some of which like carnival, lasted for more than a week. Music, dance, eating and drinking, along with certain spiritual rituals, comprised the focal festival activities. The people of Conima performed indigenous wind instruments local to the area in large consorts accompanied by drums; these instruments included panpipes, several types of duct flutes, and transverse cane flutes. As has been the case since the time of the Incas, the type of instrument performed differed according to the festival and time of year; for example, panpipes in dry-season festivals, vertical flutes in the rainy season.

Link » Audio Example 1

Qhantati Ururi, panpipe ensemble, Easter celebration. Field recording by the author.

In these festivals, all community members were welcome, and in fact encouraged, to take part as musicians and dancers regardless of skill, although along gender lines - only men played instruments while both men and women could elect to dance in the circles that laced around their community's musicians. Without the intervention of anyone or anything else, these folks made their own parties - this was *participatory performance* to the max - and these parties were at the center of what made life worthwhile. As the title of my book about Conima expressed it, these festivals were a way of *Moving Away from Silence* (Turino 1993).

During festivals people would sometimes record their community ensemble on their cassette boom boxes. What is of importance for our purposes today, these recordings were not made for archival, or critical-analytical, and certainly not for commercial purposes. Rather, as I witnessed it, these cassette recordings functioned to extend the most recent festival. In the days after a fiesta, friends would gather around and listen to the recordings which often spurred remembrances of and conversations about particular people and festival moments. That is, Conimeños used these recordings like one might use photos or videos of a vacation or wedding: to remember special happenings. However, an important difference is that these recordings, and this use function, were particularly impermanent. Often people with boom boxes would only own one or two cassettes and they would record over them a month later during the next festival, and again and again to the same purpose until the cassette wore out.

For Conimeños, and in *participatory performance* situations generally, the very conception of what music is, and is for, differs from other musical fields. More akin to a game than to a work of art, participatory performance and the resulting sounds and motions are about the doing and the relationships involved more than about some abstractable sonic product. Thus, for rural Conimeños, as recently as the mid-1980s, early 1990s, a recording was not conceptualized as *music* per se. Rather a recording bore the same relationship to music and festival - as a partial representation - in the same way that a photo or video is a representation of the people and places photographed.[2] Few people conflate a photograph or video with the actual presence of the person or subject filmed. Most know that the former is a representation of the latter, although it is assumed that the two are actually connected indexically by a camera.

Not so with recordings and music in contemporary cosmopolitan societies. When most people go out to buy or download recordings they understand that they are acquiring *music*--the actual thing not a representation of something else. I suggest that both these diametrically opposed positions—recording as representation of an original live musical event versus recording as *the* music itself can be equally true depending on the field one is operating in.

2 I have used this photo analogy for many years, but recently have noticed that it is used frequently. For instance, Chris Scales writes: 'James Badal (1996) has published interviews with a number of world-famous conductors regarding their experiences making recordings. He noted that many of those interviewed likened a recording to a photograph: 'Any recording, even a heavily edited studio product, represents an artist's interpretation of that work at that moment in time. In essence it is an audio snapshot" (Scales 2012:237). Malsky writes: 'For the hobbyist, the tape recorder was the audio equivalent of the photo album' (2003: 248).

The Four-Fields

Inspired by Charles Keil's attention to participatory music making (1987) and a fieldwork experience I will describe later, in the early 1990s I began to conceptualize four fields of music making each of which is distinguished by distinct ethics, goals, musical roles, social relations, musical practices, sonic characteristics, and, especially important, distinct conceptions of what music is and is for. My idea was that the noun 'music' actually stood for different phenomena in each field; each field was artistically and ontologically distinct. Alessandro Arbo clearly addresses this same problem that:

> with the passage to technical reproducibility, music has not undergone a change of name. [...] This detail is highly significant: when discussing photography or cinema, we implicitly recognize that these are new arts, distinct from what preceded them (painting and theater, respectively) whereas we continue to use the same term for music that has been constructed and edited in the studio: what should strictly perhaps be called 'phonograpy' [...] (2015:65).

Like Arbo, my initial point was that the activities and artistic outcomes of one field should not be conflated or confused with those of another field, and certainly not evaluated from the position of another field—and hence the need for new terms to distinguish them. My position has always been that each field has something special to offer and will suit different types of personalities, and indeed social groups, just as each has its own constraints. My music utopia would be a place where all fields were equally valued for what they are.

Participatory performance is a special type of musical practice in which there are no artist-audience distinctions, only participants and potential participants performing different sound and movement-making roles within face-to-face occasions. The primary goal in participatory traditions is to involve the maximum number of people in some performance role; sound style as well as ethics of performance are shaped to reach this goal in predictable ways in different societies throughout the world. Participatory traditions have evolved in different societies so that there are roles for people of all levels of musical and dance ability - from neophyte to expert - so that no one is excluded; for example, if there were only simple roles, experts would be excluded by becoming bored. *But what is key is that all participation is valued regardless of expertise or the particular type of contribution*.[3] Village festivals in Conima and ceremonies in Zimbabwe are textbook cases as is the dense, repetitive sound evident in the panpipe recording (Audio Example 1) and in Zimbabwean ceremonial music (Audio Example 2).

Presentational performance, in contrast, refers to real-time face-to-face situations where one group of people, the artists, have the responsibility to prepare and provide music for another group, the audience who do not participate in producing sounds or motions considered essential parts of the performance. Presentational performance is typically framed so that audiences expect something well-prepared, or special in some way. Typically, the members of ensembles specializing in presentational performance will be relatively similar in their level of musical competence; the responsibility of providing an attractive performance for an audience inspires presentational performers to seek out the best possible ensemble mates and to prepare through goal-oriented rehearsals.

I think of the four fields as distinct mindsets or mental frameworks for approaching music making in specific circumstance rather than as abstract categories. For example, presentational rock bands typically plan their sets in advance and rehearse the pieces as set forms or musical items to be performed as scripted. If dancers move onto the floor, bands with a presentational mindset will not alter their program and pieces even if they include dramatic tempo or metric shifts that will make dancing difficult. Conversely, a band with a participatory

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3 As a common objection to this framework, many, many people have argued that simply listening to music is a form of participation. Of course, in a sense this is true, but this objection (1) ignores the specific way I am defining the symbol 'participatory performance,' and moreover, (2) it is made by people operating from the position of the presentational and recording fields. Such an objection would probably not occur to people who are socialized in places where participatory performance (as I am defining it) is the mainstay; for them simply listening would probably be thought of as resting!

mindset will shift what they had planned to make dancing comfortable (good dance grooves, extending the song if dancers have just hit the floor) and hence inspire more dancing, or simply specialize in playing good dance music. That is, they place the value on group participation over the value of preserving the scripted artistic item.

If the long repetitive grooves, dense textures, lack of planned dramatic contrasts, wide intonation, and steady dynamics typical of participatory performances are not meant to entertain non-participating audiences, they are certainly not meant for recording. They can be recorded but in Conima, the boom-box recordings were not considered *the music* but sonic snapshots that, because of Conimeños' thoroughly participatory mindsets were the basis for more participation in gatherings and conversation. Moreover, field recordings of participatory performances often do not make for good listening unless you had been there, know about, or are learning about that tradition. This is because we have come to expect different things from recordings which are more closely tied to the tighter, clearer, more carefully scripted presentational mode in the form of high fidelity recordings.

Following industry discourse,[4] my use of the term **high fidelity** refers to the making of recordings that are intended to index or represent live performance in some way. Regardless of whether they are initially made at a ceremony or festival as field recordings, in a concert, or in a studio, high fidelity requires special recording techniques, selection, mixing, mastering, and editing practices necessary to represent liveness in the sound, and to meet the expectations of reception framed by the medium of recording itself. Additional artistic roles for making recorded music - including the recordist, producer, and engineers -also help delineate high fidelity as a separate field of artistic practice. This is still the most common field of recording and we will return to it later.

The fourth field, **studio audio art**, involves the creation and manipulation of sounds in a studio or on a computer to create a recorded art object (a 'sound sculpture') that is, and this is the key, *explicitly not intended to represent or be related to real-time performance*. Academic electro-acoustic music and *musique concrète* are prime examples of this field when involving practitioners that consciously eschew any connection to live performance. This field has largely been misunderstood as involving any music created on computers or in a studio, which nowadays, is most recorded music. I return to the issue of a specific mindset as an essential definitional issue; to be what I am calling studio audio art, the artist consciously (and sometimes gleefully) divorces *herself* and her work from any connection to live performance and performers. It is this mindset and artistic practice that most clearly requires a new name to differentiate it from the word 'music' (as suggested by Arbo), but I would argue that new terms were equally necessary for the other fields as well.

For studio audio art, attention is on artistic process and product. Although sharing the medium of sound with the other three fields, I suggest that studio audio art has more in common with studio visual arts such as painting and sculpture than it does with participatory music making in terms of goals, conceptions of art, types of activities in shaping the sound material, attention to form for itself, and spatial-temporal distance between producers and perceivers of the forms. Playing an electro-acoustic piece on playback equipment in a concert hall is more akin to a visual art exhibition than it is to an Aymara panpipe performance. As contrasted with participatory music, studio audio art, often involving one or two composers, offers the least potential for direct, intimate social relations and the most potential for individual creative freedom and imagination. Each field has its own benefits and constraints.[5]

Studio recording, both high fidelity and studio audio art, involve practices and technolo-

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4 While the ideology of high fidelity had been part of the recording industry's advertising since the early twentieth century, it is in the 1950s when the term becomes widely diffused, e.g., signaled by the magazine *High Fidelity* (founded 1951) as well as by appearing on record jackets and labels.

5 Beyond academic composers, electronic studio audio art is produced for a variety of purposes, such as dance scenes. This case represents a mixing with the participatory field, and the sounds, e.g., long steady grooves will be shaped accordingly although because of the electronic machines used may not index real-time performance for many people. Of course, as synthesizers and computers have become more common in stage and club performance, the sound of presentational performances, and thus the sound of high fidelity recordings have expanded.

gies that, to quote Tom Porcello, 'disrupt the linear flows of musical time' in the actual music making process (2003: 266). The recording of a sequence of individual tracks, to be assembled and shaped at a later time, also fundamentally changes the spacial and temporal relations among the musicians and obviously between musicians and listeners.

Initially, people introduced to the four-fields framework, my dear colleague and well-known ethnomusicologist Bruno Nettl among them, sometimes had difficulty accepting high fidelity as a separate field on par with live performance; the notion here was that high fidelity was basically a representation of, and even parasitic in relation to, live performance. People also had trouble accepting the roles of recordist, editor, producer, engineer, and masterer as being on par with instrumentalists and singers in shaping the creative outcome. I argued, however, that orchestra conductors typically make no sound during performances yet their musical role is celebrated; record producers and engineers have a similar, perhaps even more pronounced, creative impact in studio high fidelity recording; composers as sound-machine engineers and producers are the whole show in studio audio art. The basic manner of performing instruments or singing is often distinct for high fidelity recordings made in a studio, and new concerns about reception, for example how the recording will sound on different types of playback equipment, and how it will work for repeated hearings, shape high fidelity music-making processes in fundamentally distinct ways. Albin Zak's *The Poetics of Rock: Cutting Tracks, Making Records* (2001) is one of the best studies I know that makes this case for the creative input of engineers and producers in the artistic shaping of records. Exactly paralleling my point in suggesting the four fields in the first place, Zak's work makes a persuasive case that creating records is simply a distinct form of music making very different from, but equally valid as live performance.

It was a particular experience of making a studio recording with a band I was playing with in Zimbabwe that was pivotal for creating the four-fields framework. During a year of fieldwork in 1992-93, I undertook many types of activities. I studied Shona *mbira* and drumming and was even allowed to perform with some of my teachers in spirit possession ceremonies. In rural villages these all-night ceremonies are intended to bring a particular ancestor into his or her spirit medium. The ceremonies take place inside a relatively small round house on the host family's compound. *Mbira* players or drummers accompanied by loud gourd rattles create the sonic ground for intense participatory singing, dancing, and hand clapping among all present; spirited and dedicated music-dance participation is key for inspiring the ancestor to come into her medium. The relatively small ceremonial space is packed with neighbors, friends and family members; body heat, sweat, dancers rubbing shoulders, and loud sounds - singing, clapping, shouting - envelop participants. Unlike the Conima case, no recording by anyone was allowed during ceremonies because the ancestors would not come if any machine or cultural item was present that they didn't know when they were living.

Link » Audio Example 2

Dandanda ceremonial music, made the morning after a ceremony. Field recording made in Murewa, Zimbabwe by the author.

During that same year, I performed button accordion with the electric-guitar band Shangara Jive. This band played on nightclub stages, but like most musical occasions in Zimbabwe these performances were largely participatory, a band's popularity rising or falling with their ability to inspire dancing. My friend Joshua Dube Hlomayi, a guitarist who had initially worked with Thomas Mapfumo, led the band comprised of bass, drums, keyboards, three female backup singers, and during that year, my button accordion. We went into Shed, one of the few sophisticated sound studios in Zimbabwe, to record with Steve Roskilly, an expat British engineer and producer who had been working in the country since 1975.

Although Josh had recorded many times with Mapfumo's famous band, this was his first time in the studio as band leader and lead singer to record his own songs. For each song, as has been described many times and is often standard procedure for high fidelity recording, Roskilly first recorded the drums separately to a scratch track. The lead-guitar and bass parts

were then performed together but plugged directly into the console with the drum tracks in the headphones. Keyboards, plugged into the console were then added. Next, my acoustic accordion part was added. With one mic and headphones, I was placed in a small glass-fronted room that looked onto the main sound studio with everyone silently watching me through the glass.

Performing or participating in spirit possession ceremonies on the weekends and then going into the glass sound booth during some of the same weeks, a more dramatically contrasting musical experience couldn't be imagined. In the one I felt like a goldfish in a clinical bowl, in the other I experienced an intense human merging through dense heat, sound and motion. The realization that recording was a radically different art form than participatory performance (although I didn't have the terminology at that time) hit me viscerally in a particular recording session in which I was feeling particularly isolated in the booth -one of those light-bulb moments in fieldwork which generates new theory, in this case the idea of ontologically distinct musical fields.

Power Relations in the Studio

After all the Shangara Jive instrumental tracks were recorded, the lead and then backup vocals were done. It was during this phase, as well as the mixing stage, where the issues of power relations between Steve, as engineer/producer, and musicians emerged most clearly. Josh and his band mates were extremely proficient on their instruments and so easily recorded these parts with few retakes. Not so with the vocals. Josh was new to lead singing and Steve intervened, at times a bit harshly, to get the quality of timbre and intonation that he felt recordings demanded. Finally, he decided that the thinness of Josh's voice required double tracking and a fair amount of reverb to get the presence he was after. He never consulted Josh about what vocal sound *he* was after. The session recording the female backup singers was even more troublesome. The women sang with the wide intonational spectrum that is common, and in fact appreciated, in participatory group singing, as in the *dandanda* (Audio Example 2). Steve became particularly impatient in his struggle to get these women to sing in what he regarded as 'in tune'. That he felt freer to voice his impatience with the women even more than with Josh speaks to common gender dynamics in Zimbabwe. As a white outsider, these interactions made me uncomfortable. But not wishing to cause problems, I never asked my bandmates how they felt about these sessions. They clearly were frustrated when they couldn't perform up to Steve's standards, and I think that they were eager to get the best recording they could and trusted Steve's expert opinions. More than this I will never know.

By the mixing stage, most of the band sat silently in the room, with Steve occasionally asking Josh for an opinion about balance or sound quality, but for the most part this was Steve's show. Nobody else in the room had the knowledge to suggest how to fix certain problems such as the sound of an indigenous drum bleeding into the bass part. While accordions were used in South African pop music - which influenced the parts I created - they were non-existent in Zimbabwe. Josh had invited me to play accordion in the band out of friendship perhaps, but also because he was looking for ways to distinguish the band's sound from the many other similar groups that were performing then. My parts were clearly not what Steve had in mind for the finished recording and were mixed low in the final recording in spite of Josh's goal for including accordion.

Link » Audio example 3

From *Sharanga Jive*, by Joshua Dube, Vibrant Record, 1993.

In the Shangara Jive sessions, the music was created track by track to accumulate the lump of clay that is then shaped in the mixing and mastering phases. Within this process, it is clear that the recording *is* the music and that, like orchestra conductors, engineers/producers have

a major impact on the final work. The sounds of one of Josh's songs on the recording and as played on stage are similar - the high fidelity connection is strong - but ontologically and processurally they are different things with different purposes.

Attention to broader patterns of social power relations has been one of the most common themes in ethnographies of recording studios by ethnomusicologists. How power dynamics play out varies according to the social positioning of the actors in terms of professional prominence, knowledge, race, class, and gender in particular societies. Given Zimbabwe's history, and Josh's modest demeanor, the interactions described for the Shangara Jive sessions could have been predicted. But it must also be said that when Thomas Mapfumo recorded in Zimbabwean studios he was largely in control of the process because of his fame, money, experience, and strong personality.

Stereotypical assumptions about how power relations might play out often vary in surprising ways. For instance, in his excellent ethnography of Native American *powwow* recording (2012), Chris Scales discusses the dynamics of recording Native musicians by the white producer of Arbor Records, a company that specialized in releasing *powwow* music. Here, the history of white-Native American conflict operated in the opposite way of what I have described for Shangara Jive at Shed. Brandon, Arbor's owner and producer-engineer, usually let the *powwow* singers make the aesthetic decisions about how the music should sound if the recordings were to be marketed to native consumers on the *powwow* trail. First of all, he bowed to their greater knowledge of the tradition, but he was also sensitive to how it would appear if he tried to exert excessive control given Native Americans' mistrust of whites. Wanting to attract more *powwow* groups to his studio, he worked to develop a reputation for a culturally sensitive, collaborative studio dynamic. Interestingly, when he produced Native musicians for a tourist or non-native market, that is, within a different *network*, he often exerted more creative control over the recording.

Ethnomusicologist Karl Neuenfeldt writes about engineer-producer Nigel Pegrum who began recording Aboriginal didjeridu artists in Australia starting with David Hudson. Pegrum stated:

> We produced that first album [*Didgeralia*] [but] as a Pommie [British migrant] in Australia (and also working with somebody of the status of David), I really was very careful about putting forward any opinions. But it soon became clear to me that David liked to be produced [...] I found myself almost talking David through some of the tracks using a combination of visual and musical cues, [...] he seemed to be wanting that direction so I leapt in and gave it and he wasn't offended. And the end result, of course, was a very successful album (quoted in Neuenfeldt 2005: 89).

Here the personalities, parallel goals of the actors, and Pegrum's long experience and skill recording a variety of non-mainstream instruments led to a successful collaboration in spite of a history of racial tensions in Australia.

In Louise Meintjes book *Sound of Africa: Making Music Zulu in a South African Studio* (2003), she describes a dynamic between white engineers, black producers, and black musicians with language being a prominent marker of cultural position and power. Often the white engineers didn't speak Zulu or the languages of the musicians; often the musicians didn't speak the technical language of the studio; and the black, albeit middle-class, multilingual producer acted as intermediary and translator, maintaining the greatest amount of artistic control. Meintjes describes a variety of cases where the lining up of insider and outsider positions shifted in the processes of making records for a black South African market. While the power dynamics in recording studios are influenced by, and may reflect broader patterns within a given society, and more specifically a particular network, these few examples illustrate the number of potential variables that might be in play. These examples also illustrate why in-depth, on-the-ground ethnography is important for understanding how records are made and the meanings they carry in particular societies.

Equally Authentic: Live and Recorded

If power relations are a prime topic in ethnomusicological work in recording studios, issues of musical authenticity vis-a-vis the relations between live and recorded music are equally prominent. Again, close attention within ethnographic methodologies has yielded some surprising insights.

Critiquing the ideology of faithful reproduction, Jon Sterne has persuasively argued there is no pristine original that lies outside the recording process to be authentically captured. Sterne puts it this way:

> the sound event is created for the explicit purpose of its reproduction. Therefore, we can no longer argue that copies are debased versions of a more authentic original that exists either outside or prior to the process of reproduction. Both copy and original are products of the process of reproducibility. The original requires as much artifice as the copy (2003: 241).

This is less true for ethnographic field recordings, especially ones like the Conimeño panpipe recordings I made; those people would have played as they did whether I was there recording or not. It is also perhaps *somewhat* less true for the recording of concert albums. Here the genre or type of recording becomes a variable in the live-recorded authenticity nexus along a continuum.

Reluctance to accept high fidelity studio recording as a distinct field of music making on par with the live fields is an effect of the discourse of fidelity itself. Two aspects of this discourse are the attempted erasure of the recorded media and processes, as well as the assertion of an equivalence between live performance and recordings. Sterne outlines in detail, that in the early days of recording, people had to be convinced and taught to hear recordings as 'faithful' renderings of 'real' performances. He writes that from 1915 to 1925, the Edison Company conducted over four thousand tone tests in front of millions of listeners throughout the United States (Sterne 2003: 262). These tone tests were staged demonstrations for the purpose of advertising record machines. A singer or instrumentalist would perform next to a phonograph playing his recording of the piece: 'He begins playing solo; then the phonograph starts to play with him; he stops playing, and the phonograph continues', at which point the curtain is raised to show the phonograph. Sterne asserts that 'the Edison Company [...] was working to convince audiences that [...] a good reproduction is the same thing as a live performance' (2003: 263). If we think of the sound quality of early cylinder and 78 disc recordings this equivalence is hard to swallow, and yet Sterne shows that this advertising technique was successful in convincing many listeners; Sterne's point was that people had to learn to *believe* in the equivalence, that is, *learn to hear* in new ways to believe in the machine. Matthew Malsky makes the same point when he writes:

> the magnetic tape recorder might be said to reproduce recordings with higher definition than its predecessor, the phonograph. In contrast, fidelity is based on an idelogical assumption that there should, or even could, be a direct correspondence between a live and a reproduced sound. [...] Second, [sonic] definition is dependent upon the listening audience's familiarity with those norms (2003: 239).

As recording technologies improved, it became easier to accept the equivalence of an original and a copy, i.e recordings as faithful of a live performance, but this was because the ability to technologically manipulate sound became more sophisticated. As studio technologies, techniques, and social roles evolved to make recording an ever more separate form of music making, the equivalence of live and recorded, and the ideology of high fidelity itself were strengthened.

Especially from the 1950s on, as the technological manipulation of sound grew more and more central, a new field of music making arose, studio audio art, in which the construction of a recording as a work of art, rather than as a representation of a live performance, split off from the live-performance and high fidelity fields. By the mid-twentieth century in the elite art music realm, composer-engineer-producers of *musique concrète*, electronic and computer music rejoiced in their lack of dependence on performers, their expanded sound pallets, freedom from the score, and their greater artistic control.

While recognizing the groundbreaking and concurrent activities of elite academic composers, Albin Zak traces the rise of studio audio art in popular music to Les Paul and Mary Ford's 'How High the Moon'. This number 1 hit of 1951 was constructed of twelve overdubs by Paul and Ford with her singing the least important vocal parts first and the lead last.[6] As producer-engineer Bruce Swedien put it, this record was the one that 'changed pop music forever, [...] There wasn't a shred of *reality* in it - and it was wonderful' (quoted in Zak 2001: 11, my emphasis). Swedien's use of the term reality is interesting in that it still suggests the idea of a live or 'real' performance as what recordings, before this one, captured. Zak concludes that from this time on, 'the [recording] process and its end result became very different from what they had been. The process became one of deliberate composition, and its product, an original musical work' (2001: 11-12). Zak pinpoints rock music as the first mass genre where 'recording moved almost inevitably from a process of collecting, preserving, and disseminating to one of [music] making' (2001: 13). Certainly, by the time of the Beatles' *Revolver* (1966) and *Sgt. Pepper's* (1967), the idea of the recording studio as the site for a distinctive form of music making and musical art work entered mainstream cosmopolitan understanding. Central to this turning point, these works celebrated studio manipulation explicitly at a time when the Beatles were rejecting performing live-studio audio art.

Ironically, corporations were still arguing for the fidelity of their products for reproducing real-time events. As cassette tape ads of the 1980s went: 'Is it live or is it Memorex?'.[7] Set in a recording studio, Ella Fitzgerald was asked to differentiate between a 'live' performance and a recording of Chuck Mangione in a revival of the old Edison tone tests. Note the shift in setting of the tone tests from the early 20th century concert stage to the mid-20th century studio as the primary, privileged, site of music making. By the late 1960s, 1970s, much studio recording had *become* studio audio art in terms of process. This should render my two fields redundant, yet the ideology of liveness as key to musical authenticity soldiers on - especially in particular musical genres such as blues, jazz, classical, gospel, country, soul, singer-songwriter, so-called 'folk' and 'world' musics, and, surprisingly, many types of rock. As recording/sound generating technologies and techniques have improved for creating works in the studio, so too have they improved to mask their own presence and to create the sense of 'liveness', which people clearly still value.

Genres of Recording/Genres of Music

There are myriad ways of making high fidelity recordings, and myriad reasons for attempting to create a sense of liveness in those recordings. A friend of mine, Ralph White went into a silo in upstate New York to record a CD with his cellphone, using the huge cavernous space to create a unique sound.

Link » Audio Example 4

Ralph White on accordion, selfie-cellphone recording.

After recording in Pogo Studios in Champaign, IL with Mark Rubel for a number of projects, my son, Matt, JB Faires, and I recorded our most recent CD in my living room with our friend James Hathaway and his computer.

6 In both cases it was the post-World War II availability of tape recorders that drove these musical experiments.
7 See John Mowitt's close analysis of this example (Mowitt 1987).

Link » Audio Example 5

Real time rambling', from *Real Time,* by Turinos and JB Faires, CD Baby, 2015.

Such self-recording projects with cellphones and computers for CDs and the internet have become ever more convenient, cost-effective, and common, and suggest a different direction for the ethnographic study of recording. Attention to new DIY recording processes and projects - rather than a focus on stars and famous studios/producers - fits with ethnomusicologists' traditional orientation of studying grassroots music making.

All of my field recordings from the mid-1980s through the 1990s were made on a Sony Professional Walkman cassette recorder and a single stereo microphone. Recordings in Peru were largely made for my own research purposes - to have examples of the music I was to analyze and write about. The only control I had for making these recordings was mic placement. Later I was invited to contribute to a Smithsonian-Folkways CD, *Mountain Music of Peru, Vol. 2*, with John Cohen. For this project I selected a variety of my favorite recordings and put them in an order to create contrasts and illustrate the variety of instruments and genres in the Aymara region around Conima. This was not a case of documentary realism, to use Steven Feld's term, because in Conima different instruments were rarely juxtaposed in the same festival, and the performances of each piece went on much much longer than the cuts I put on the record. My editorial choices were based on my ideas about what would make for more interesting listening when the music was presented on a record. I have already argued that these recordings do not fit Jon Sterne's assertion that for recorded music there is no original source outside the recording process. As I have said, these folks would have played as they did whether I was there recording or not; but I did make choices about mic placement for the purpose of balance, and editorial choices regarding what I thought would make the recording more interesting, so as recordist I did have some minimal input.

Raising another key issue, the reason that my incredibly low-tech recordings were acceptable for publication in 1994 may be found in the 'traditional' sound of previous field recordings. Those of us who grew up listening to Folkways published field recordings in the 1960s, 70s, and 80s, were used to low-tech sound, and in fact this sound, this 'grain of the recording' was part of what made these recordings seem authentic. The grain of recordings shape listening habits - what we expect to hear and thus what we want recordings to sound like. Matthew Malsky notes that when electrical recording was introduced in the 1930s with a much improved frequency range and the ability to record more detail: 'Ironically, and not at all dissimilar to the reaction that accompanied the introduction of compact discs, the initial public perception of the quality of electrical recordings was that they sounded harsh and artificial' (2003: 244). The grain of recordings become part of the style associated with particular musical genres. The scratchy sound of old 78s, even when remastered, is part of the authenticity of early hillbilly music. Likewise, Peter Manuel argues that some Indian audiences have become accustomed to the sound of cheaply reproduced cassettes and, therefore, have come to prefer that sound in their recorded music (1993, see Sterne 2003: 401). The low-tech sounds of punk and old-time string band records are clearly part of the style indexing both liveness and do-it-yourself, anti-industry ideology in contrast to, say, the overproduced sound which how we want to hear disco.[8] Thus, the grain of recordings becomes part of genre style even in the high fidelity field where the technology is supposed to be hidden.

In discussing the commercial recording of Native American *powwow* music, Chris Scales (2012) outlines a range of processes from holding a single mic over drum groups performing on the *powwow* grounds, much like any field recording, to studio recording that uses a single or multiple mics for the singers. Many *powwow* groups insist on on-site recording on the *powwow* grounds because they believe that their performances will lack energy if they are not playing for dancers, even when record company producers would prefer the studio to enhance their

8 For example, on the notes accompanying the CD reissue in 1995 of the *Fuzzy Mountain* String band's original 1971 and 1972 Rounder recordings, (Rounder CD 11571) they make a special point of stressing the low-tech process of making these recordings.

control. As more groups began recording in studios, however, the grain of *powwow* records shifted and more people began to want to record in studios.

Scales describes some *powwow* groups who were willing to experiment with electronic manipulation of vocal timbre. What I found interesting, however, was that, according to Scales:

> The sacred and traditional nature of drums prohibits the kind of sonic experimentation that singers will sometimes indulge in when making a studio recording. [...] This is not to say that drum sounds are not digitally manipulated, only that these timbral adjustments are all in the service of creating a documentary sound: recording technology in the service of making the drum "sound as much like the sound of the drum" as possible (2012: 225).

The same kind of decisions are made for commercial Aboriginal didjeridu recordings by producer Nigel Pegrum who, according to Karl Neuenfeldt, has developed secret techniques for recording the didj but whose goal 'was to produce recordings where the mediating role of technology was minimized. Instruments and voices were recorded and mixed (using various electronic effects, compression, and equalization) to make the audio experience seem 'real' and not at all 'unauthentic" (2005: 91). The very identity of the didj as Aboriginal, like many so-called 'folk' and 'world music' genres tend to require a 'documentary' or a high fidelity approach for recordings in general. But as the *powwow* drum example shows, there may be more specific values at stake and decisions at work that are best understood through detailed ethnographic work in studios.

In relation to more mainstream genres, Scales notes that:

> the stylistic conventions and norms of styles and genres are established in part through decisions about which parts of recordings are considered "documentary" and which parts may be digitally altered and sonically manipulated. For instance, in rock recording the voice is an instrument most likely to be treated as "documentary." Because rock singers are expected to actually "feel" the emotions they are singing about [...]. digital manipulation of the vocal line represents a disruption of the authenticity of the emotional state of the singer (2012: 224).

Tell that to John Lennon! One of the great values of ethnography is the specifics learned in particular situations that then are used to avoid over generalization.

Conclusion

For some people it is still true that a recording is like a photo, a representation of something else, a real-time musical event. But it is also clear that since at least the 1960s, and Jon Sterne would argue much before, studio recording is an art in itself and the works that result *are* the music. Both positions are true and simply pertain to the different ontologies of distinct musical fields. The building of any recording -track by track, and then shaping the sonic material electronically - could be likened to a sculptor of clay or a painter. The commonality of this process in the studio seems to make my category studio audio art redundant in relation to what I have called high fidelity. Yet, there are many personally and culturally specific reasons why 'liveness' is still desired and still indexes authenticity, which is to say individual subjectivity, group membership, and ultimately humanness. Even though many cosmopolitans' most common experiences with music are through recordings, recorded music is still iconic of a direct human connection for many people, although certainly more distant than the live music fields that high fidelity indexes. It is also clear that to produce a sense of liveness on recordings there are a vast array of culturally and technically specific ways of, and reasons for, doing so. As the work I have cited and the very topic of the seminar for which this paper was written suggest, doing ethnographic research in recording studios is the best way to begin to untangle all the variables at work.

Postscript

Of the questions and issues listed at the beginning of this paper, most received attention during the 'Ethnography of Recording Studios' seminar. One, to my mind, glaring exception was my second question, 'why do people record?' to which we might add 'how do they feel about the recording process?' When I asked the why question, Jeremy Wallach was the only one to respond with one probable answer, 'money', but this hardly covers the ground for the myriad local musicians who record fully understanding that they might not even break even. For someone like me who actually hates recording, I have still had the urge to do so for a variety of reasons including making a document of certain musical relationships and compositions. Beneath this is a deeper, perhaps broader, human urge 'to make' things that have some permanence and to share those things with others. I could go on, but the point is that these are questions that can only be answered through in-depth ethnography and my guess is that the list of answers would be long, varied, and significant for understanding people's relation to different kinds of music making. The fact that these central questions are often not considered in studies of recording points to the unmarked, doxic, character of recording and recordings in the twenty-first century.

References

ARBO, Alessandro
2015 'Music and Technical Reproducibility: A Paradigm Shift', in Gianmario Borio (ed.), *Musical Listening in the Age of Technological Reproduction,* Ashgate, Farnham, England: 53-68

BADAL, James, ed.
1996 *Recording the Classics: Maestros, Music, and Technology*, Kent State University Press, Kent, OH

KEIL, Charles
1987 'Participatory Discrepancies and the Power of Music', *Cultural Anthropology* 2 no. 3: 275-83

MALSKY, Matthew
2003 'Stretched from Manhattan's Back Alley to MOMA: A Social History of Magnetic Tape and Recording', in Rene T.A. Lysloff and Leslie C. Gay, Jr. (eds.), *Music and Technoculture*, Wesleyan University Press, Middletown, CT: 233-263

MANUEL, Peter
1993 *Cassette Culture: Popular Music and Technology in North India*, Chicago University Press, Chicago

MEINTJES, Louise
2003 *Sound of Africa! Making Music Zulu in a South African Studio*, Duke University Press, Chapel Hill, NC

MOEHN, Frederick
2005 'The Disc Is Not the Avenue: Schismogenetic Mimesis in Samba Recording', in Paul D. Greene and Thomas Porcello (eds.), *Wired for Sound: Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown, CT: 47-83

MOWITT, John
1987 'The Sound of Music in the Era of Its Electronic Reporducibility', in Susan McClary and Richard Leppert, *Music and Society: The Politics of Composition, Performance and Reception,* Cambridge University Press, Cambridge: 173-197

NEUENFELDT, Karl
2005 'Nigel Pegrum, 'Didjeridu-Friendly Sections,' and What Constitutes an 'indigenous' CD: An Australian Case Study of Producing 'World Music' Recordings', in Paul D. Greene and Thomas Porcello (eds.), *Wired for Sound: Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown, CT: 84-102

PORCELLO, Thomas
2003 'Tails Out: Social Phenomenology and the Ethnographic Representation of Technology in Music Making', in Rene T.A. Lysloff and Leslie C. Gay, Jr. (eds.), *Music and Technoculture*, Wesleyan University Press, Middletown, CT: 264-289
2005a 'Music Mediated as Live in Austin: Sound, Technology, and Recording Practice', in Paul D. Greene and Thomas Porcello (eds.), *Wired for Sound: Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown, CT: 103-117
2005b 'Afterword', in *Wired for Sound: Engineering and Technologies* in Paul D. Greene and Thomas Porcello (eds.), *Sonic Cultures*, Wesleyan University Press, Middletown, CT: 269-81

SCALES, Christopher
2012 *Recording Culture: Powwow Music and the Aboriginal Recording Industry on the Northern Plains,* Duke University Press, Chapel Hill, NC

STERNE, Jonathan
2003 *The Audible Past: Cultural Origins of Sound Reproduction,* Duke University Press, Chapel Hill, NC

TURINO, Thomas
1993 *Moving Away from Silence: Music of the Peruvian Altiplano and the Experience of Urban Migration,* University of Chicago Press, Chicago
2000 *Nationalists, Cosmopolitans, and Popular Music in Zimbabwe,* University of Chicago Press, Chicago
2008 *Music and Social Life: The Politics of Participation,* University of Chicago Press, Chicago

ZAK, Albin J. III
2001 *The Poetics of Rock: Cutting Tracks, Making Records,* University of California Press, Berkeley

Making Tracks as a Recursive Problem-Solving Process. Towards an Ethnography of Recording Studio Practices in Popular Music Cultures

Alessandro Bratus

The cultural and social valence of sound, as well as the modes of production of the physical artefacts used to preserve it, is the crucial dimension against which an ethnographic approach to the recording studio should probably measure its method and scope. This article presents a broad overview of the scholars and approaches that have focused on the recording studio, coming from the fields of ethnomusicology (with a focus on popular music genres and communities) and popular music studies. What emerges from this picture is the need to include this part of the popular music production chain (and perhaps not only that of popular music) as a fundamental step in the production of meaning attached to records. Such an outcome is the result of both the multiple collaborations that exist within the network of professionals and the particular conditions that the studio provides in terms of isolation from the outside world.

In discussing these topics I do not endorse a consideration of technological conditions and innovations as the main driver of historical change in the practices related to the studio; instead I have tried to put personal, relational, cultural and social dynamics at the forefront of an ethnographic approach to these working environments, and to consider technological change as a separate line of development and, quite possibly in some respects, as a by-product of this wider scenario. At the core of my conception of such a methodological attitude lies Timothy Taylor's understanding of technology as a:

> special kind of structure. It is both a schema or a set of schemas, and a resource or set of resources. It is no accident that some have interpreted "technology" to refer both to tools and machines, as well as techniques and kinds of knowledge. [...] Technology is a peculiar kind of structure that is made up of both schemas and resources, in which the schemas are largely unspoken by technology's users, thereby allowing for some degree of determinism, while technology as a resource refers to what we do with it – that is, what is voluntaristic (Taylor 2001: 37).

Drawing on Sherry Ortner's interpretation of the 'practice theory' (1996), Taylor is able to devise a pragmatically-oriented theoretical approach aimed at investigating the many assumptions routinely made when studying topics that are so close to our everyday experience as to be taken for granted.

I would like to discuss the production of recorded sound in terms of problem-solving processes, related first and foremost to the production of material objects. In terms of production, then, the kind of work done in the studio can be best described as the creation of prototypes through *exploratory processes* that: «generate and externalize *preinventive structures*'

already present in the originating idea» (Sawyer 2011:136).[1] These exploratory processes may be inspired by the specific characteristics of the track recorded during a particular recording session, or – alternatively – they may follow already established paths related to broader cultural categories such as genres or the aesthetic attitudes distinctive of labels, studios, individual performers or producers. The individual track, that is to say the result of the concerted actions of the creative efforts that take place in the studio, would ideally work within the existing cultural coordinates and, at the same time, would contribute to the field with a degree of innovation that is (potentially) relevant in social terms and (hopefully) profitable from the economic point of view. As in the case of the genres discussed by Georgina Born when commenting on Brackett's work (2005) on black American popular musics, the mix of already established conventions and newly contextualised elements is a key factor:

> genre works by projecting temporally, into the unruly, ongoing cauldron of alternative socio-cultural formations, potential moves and reconfigurations of those formations coded materially as aesthetic moves and transformations that are proffered as analogous to the social. When the teleology works, then music may effect a redirection or a new affective coalition of the identity formations that it set itself to mediate (Born 2011: 383).

Mass produced objects, especially in popular culture, strive for such a balance between what mediates social reality and what is perceived to be effective on an aesthetic and expressive plane for a specific – imagined and alleged – audience.

The focus on the track is a relevant starting point for the investigation of the nature of social meaning embedded in phonographic artefacts, as suggested by Jeremy Wallach, because their 'fundamental nature is rooted in sonic (that is, audiotactile) experience'; such a shift, he continues, can specifically help in: «assessing the limitations, pleasures, and possibilities of mass produced and widely circulating cultural forms such as recordings» (Wallach 2003: 54). Recorded music entails a particular mode of musical experience that should be considered on its own terms as the meeting point for operations of culturally bounded encoding and decoding of discourses already extentualized in the mass produced material object.[2] The conception of the ethnography of the studio as revolving around the realisation of a recorded artefact thus allow the researcher to focus on the 'native ontologies' of cultural practices, as well as to privilege the realities of activities over theoretical speculation:

> thinking through things can only be understood as a methodological project as opposed to a theory in its own right, because those separate activities may well generate disparate ontologies. [...] It follows that the promise of thinking through things cannot be to offer another consummate theory, but rather a method for generating a plurality of concepts or theories (Henare-Holbraad-Wastell 2007: 23).

At the same time, the focus on what happens within the recording studio can help in the re-conception of these processes as 'transformational' rather than 'preservational', as their nature is the opposite of 'passive acts that exert no influence on what they preserve'; on the contrary, Katz continues, recording has affected: «nearly every aspect of musical composition» (2010, 213-4), including the use of sound itself as compositional material. At the same time, the realisation of a complex technological object requires the interaction between different skills and professionals, making the elaboration of a record a socio-cultural process that can be aptly investigated with approaches informed by ethnography.

Putting the object at the centre of a theoretical framework in order to investigate the making of recorded artefacts also means acknowledging their 'secondary' agency, defined as the 'objectification in artefact-form' that shows 'how social agency manifests and realizes itself, via the proliferation of fragments of 'primary' intentional agents in their 'secondary artefactual form' (Gell 1998: 21). The reconstruction of the' network that goes to constitute the 'primary'

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1 Sawyer employs here the terminology proposed by Finke-Ward-Smith (1992).

2 Here Wallach refers back to the terminology proposed by Bauman and Briggs, who define 'extentualization' as: «the process of rendering discourses extractable, of making a stretch of linguistic production into a unit – a *text* – that can be lifted out of its interactional settings. A text, then, from this vantage point, is discourse rendered decontextualizable» (Bauman and Briggs 1990: 73).

level of agency to which Gell refers is the specific task of an ethnography of the recording studio as the site where the transformation of ideas and concepts into material objects takes place. In the gap between primary and secondary agency lie the ambiguity of the text, its status as a medium subjected to processes of abductions (to use Eco's terminology, quoted by Gell himself) in the semiosis of artistic objects, and the possibility of providing more factual grounds for our interpretations.[3] At the same time, the value of Gell's theories for musical mediation can be important because of their potential to: «reveal music as a medium that destabilizes some of our most cherished dualisms concerning the separation not only of subject and object, but present from past, individual and collective, the authentic from the artificial, and production from reception» (Born 2005: 8). In this vein, such alleged oppositions emerge as culturally constructed rather than grounded in the material ontology of things, and the series of such clear-cut divides appears more blurred that at first sight. Placing the artefact at the centre, moreover, implies a slightly new configuration of the different mindsets Thomas Turino proposes for the definition of the kind of social relationships each recorded artefact proposes to its listeners (2008: 23-92); rather than sets of *continua* with irreconcilable extremes, they call for a consideration related to how these different ontologies might coalesce and merge.[4] High-fidelity recordings can, in fact, point to the reproduction of a participatory performance – as when a highly improvisational record retains the imperfections and the casual noises of the musicians in the studio as part of the liveness effect – or they can suggest a presentational performance – as when a classical orchestra is recorded playing in a dry, neutral acoustic space. Studio audio art can, conversely, obtain very different results in terms of either presenting sounds that might seem impossible (or really unlikely) to perform – the case of many of the electronic effects and transformations we hear in the rhythmic manipulation in genres such as EDM and trap –, or work towards the evocation of a performative stance in even the most posthuman acts – as in some contemporary examples related to the use of voice and vocal manipulation via Autotune, Melodyne and other studio tools (Gibson 2010; Danielsen-Brøvig-Hansen 2016: 117-132).

My point here is that if we think about recorded artefacts along these sets of *continua* (participatory/presentational and high-fidelity/studio-art), they can perhaps be better represented as points on a Cartesian plane. I find such an approach to recorded artefacts quite restrictive and prefer to follow the assumption that any phonographic effect, including liveness and authenticity, is instead predicated on the more or less pronounced inner contradictory status of recordings as both the reproduction of an event and its representation. At the same time, their reception is built on the sense of participation they engender, as well as on the awareness of their artificiality: it is what Gracyk defines as the «ontological priority» (1996: 39) that performance retains with respect to recording that produces such a fundamental contradiction and the Eisenberg 'paradoxes' of phonography as a form of art (2005: 130).[5] The problem-solving process of realising a record focuses on this contradictory nature of the object in order to find a suitable space for musicians to express their subjectivities and for the audience to find its proper space within the performance staged by the phonographic artefact.

3 For a definition of abduction in Eco's writings, see *Semiotics and the Philosophy of Language* (1986: 39-43).

4 Similar distinctions persist in music scholarship across repertoires and boundaries, as can be seen in a recent essay by Allan Moore on recorded British folk songs, in which he describes the opposition between 'documentary realism' and 'studio-conceived aesthetic' in terms not so dissimilar from those put forward by Turino (Moore 2015).

5 As a perhaps extreme example, this is the case discussed by Auslander when speaking about David Bowie's performative *personae* (2008: 102). Other examples of the same set of contrasting issues between the need to be faithful to a live aesthetics using studio production have been discussed by Christopher Scales (2012) and Louise Meintjes (2003) with regard to contemporary *powwow* and Zulu music, respectively.

A Peek at the Process: Ethnomusicological and Popular Music Studies Approaches to the Recording Studio

The recording studio has been a research topic addressed on a number of occasions by both ethnomusicologists interested in popular music cultures and by scholars interested in popular music in general. In the next paragraphs I shall sketch an overall frame for these studies, so as to gain a wide perspective on their focuses and methodological approaches. One of the problems the more ethnographically-oriented scholars point to when talking about the cultures of popular music is the fluidity of the 'field' and the related change in the concept of 'fieldwork', an area that can no longer be circumscribed within fixed boundaries. In his book about the American-Japanese noise scene, David Novak speaks about an ethnography 'in the circuit' as opposed to 'on the ground'; at the same time, he reclaims the benefits of this choice because it has the potential to investigate: «this marginal experimental form as a frame for the broadest scales of cultural globalization» (Novak 2013: 27). A similar point is made by Thomas Burkhalter when working on his 'multi-sited ethnography' (Marcus 1995) of the popular music grassroot scenes in Beirut:

> music making in an increased digitalized and globalized world is influenced more than ever by both virtual transnational trends and phenomena and by local musical and nonmusical spheres of influence. Contemporary music analysis has thus to link analysis of music (and music performance) with cultural and social studies and collect data in transnational contexts (Burkhalter 2013: 30).

Neither of these studies, however, presents any specific problematisation with regard to the studio as a site for ethnographic research, perhaps because they focus on marginal and underground genres and small relational networks.[6]

One of the earliest attempts to address popular music with an ethnographic approach, Harris M. Berger's *Metal, Rock and Jazz: Perception and the Phenomenology of Musical Experience*, provides nothing more than a quick mention of the recording studio in the reconstruction of the musical scenes of Cleveland and Akron, even though the book extensively analyses some of the records made by these local bands (Berger 1999). In a similar way, the classic text by Sara Cohen on rock culture in Liverpool also fails to show any particular concern for the studio by positing a fundamental opposition between studio practices and live recording practices as different forms of music making. She then associates the former with commercialism and commodification because she thinks that her research suggests that this is the attitude widely shared by grassroot bands and performers with regard to making (and selling) records (Cohen 1991: 179-186).

In the 'Introduction' to their edited collection *Wired for Sound. Engineering and Technology in Sonic Cultures* – probably the first attempt to gather together a substantial number of reflections on recording practices as a site for ethnographic inquiry – Porcello and Greene wrote:

> Ethnomusicologists and ethnographers who study world musical cultures have until recently tended to ignore electricity-based technologies in their studies of music making, community building, and performativity. We have tended, for example, analytically to favor technologies (such as instruments) made of organic components over those that originate with a Western electronic hardware manufacturer, even when such technologies are used with immense creativity (2005: 4).

I have already pointed out that even in a foundational text such as Turino's *Music As Social Life* (2008) the separation between live and recorded musical fields does not fit entirely well into the context of the mass-mediated practices of popular music. My argument is that, even when popular music performance and practice do not: «involve formal presentations, the star system, or recording and concert ticket sales» and «are more about *the doing* and social

6 Also in a key methodological attempt such as the edited collection *Shadows in the Field: New Perspectives for Fieldwork in Ethnomusicology* (Barz and Cooley 2008), such a gap between the attention to an expansion of the concept of fieldwork and the lack of reference to the studio as a specific point in the cultural geography of musical practices remains striking.

interaction than about creating an artistic product or commodity» (*ivi*: 25), as in the cases of grassroot and local scenes, the framework in which they find themselves – i.e. the current techno- and global-scape – constantly contributes to increasing their in-betweenness in the realms of live and mediated music. The production of records, the system of celebrity and stardom, and the social occasions for music making are actually embedded in the mindset brought and spread by recording technology. Today more than ever, given the current ubiquitous use of mobile devices for audio and video recording, addressing any practice related to music making requires us to acknowledge a feedback loop between what is performed live and what is (or can be) mediatised, and such a historical condition can be seen as the latest step in a far-reaching process that began with the invention and social diffusion of the phonograph.

The above paragraph does not intend to suggest that the relevance of recording is uniformly ignored; rather, that these approaches are more recent among ethnomusicologists. In his book on Indonesian popular music, Jeremy Wallach documents the workflow in three different studios, each of which is chosen because it represents a specific cultural constellation where three main factors interact: 'metacultural understandings of genre as they are applied to music production, the use of sound technology as a tool for cultural innovation involving the hybridization of existing genres, and the social dynamics among the participants' (Wallach 2008: 92). What he argues is that the balance between these aspects differs radically from what can ordinarily be found in the West, which also enables him to rule out any deterministic approach to the relationship between technology and cultural production. Just as using the same equipment does not necessarily result in standardisation and homogeneity, so working towards the realisation of the same objects – namely, records – does not imply overlooking the aesthetic qualities that make art a valuable form of commodity in everyday life and a symbol for overall hierarchies of power, operating first and foremost within the specific context in which it is produced. As argued by Louise Mentjies:

> drawing correspondences between the production of music, local imaginaries, forms of knowledge, and scholarship brings into mutual relief the poetic, performative, indeterminate, emergent, and invested qualities of them all. I am arguing for the centrality of aesthetic expression to the production of knowledge and power, and of forms of power to the production of expressive culture (Meintjes 2003: 16).

Besides the application of such ethnographic observational methods for fieldwork research in the recording studio, some scholars have gained insight into studio culture by direct involvement as part of the field. Ray Hitchins, working as a guitarist in Jamaican recording studios, provides a rich account of the special terminology, musical nuances, and production tricks that characterise that specific music scene. In particular, he recounts how long it took for him – musically trained in the UK – to adapt to the particular workflow and conventions operating there, which are largely dependent on the decisions of the sound engineer as the dominant figure (2013).[7] Eliot Bates, recasting his experience as a studio technician in Istanbul, stresses a similar point when he underlines how the socio-technical environment of the studio allows the emergence of particular:

> *techniques* that arose from repeat encounters between users and tools, and an outside observer witnessing recording encounters might conclude that the tool was more in control of the user than the other way around. Only a small fraction of the available DAW features are ever used, and many of the features that are used are routinely "misused" or used in ways outside the scripts intended by the tool's initial designer (Bates 2016: 151).

We will return to this definition of 'techniques' later, when we try to summarise one of the likely topics for future research in the field by attempting to reconstruct a 'common practice' (or a total lack of it) in relation to the many practices to be found in the recording studio.

Scholars more closely attuned to popular music studies have repeatedly addressed the

7 The chapters by Thomas Turino and Alessandro Cosentino in this book describe instances of the similar manipulative, dominant role of the sound engineers in the recording studios they encountered during their fieldwork, in Zimbabwe and Botswana respectively.

recording studio as a relevant place for researching the topics in which they are interested, even though they rarely address it overtly as a location for ethnographic inquiry; however, what is often lacking in their approach is a clear problematisation of the role and position of the scholar in this context. Nevertheless, most of them – consciously or not – share the same sense that ethnography is methodologically unavoidable for the investigation of some aspects related to current popular music cultures because:

> it can ground general theoretical claims in the specific experience of the individuals, lead the scholar to interesting questions that may not have arisen through observation alone, and call attention to aspects of the researcher's relationship to the phenomenon being studied. [...] And, perhaps more importantly, it can help the researcher to develop analyses that are relevant to the community being studied' (Schloss 2004: 6).

In his research on sample-based hip-hop, Schloss's fieldwork is the basis of the very conceptualisation of the studio as an environment removed from the outside world and everyday life (Schloss 2004: 45-48); this is an important feature that will re-emerge later when I discuss the discourses about creative environments – not necessarily restricted to music – in current academic debate.

One of the important aims of pioneering scholarship with regard to the recording studio was that of recognising the impact that the sound engineers working in the studio have on the production of the final phonographic artefact. They can thus be considered both as part of a creative environment and as co-workers with the musicians, sometimes crossing the boundaries with (or assuming altogether) the role of producer. This is the case in the transition from the 'craft-union' mode of collaboration between musicians and record mixers to the 'entrepreneurial' and 'art' modes described by Edward Kealy on the basis of interviews – collected in the guise of a scholar and former fellow professional – with studio workers (1990). While developing his project for a *Musicology of Record Production* (2014), Simon Zagorski-Thomas also relies on his previous experience as a sound engineer in order to place his research firmly in studio practice; the divide between his own experience and what he collected from other sources is not always clearly articulated in his writings, his concerns being more general and theoretical rather than methodological. In his book, as well as in an earlier contribution on the recording practices of the drum kit in rock, in which he overtly claims to work with an ethnographic approach, he chose not to share with the reader the identity of the: «drum teachers, performers and record producers» (Zagorski-Thomas 2010: 197) he interviewed and observed in the studio. Something similar happens in the edited collection *The Art of Record Production*, where the only article mentioning ethnography is Michael Jarrett's inquiry into the presence (or invisibility) of the producer in jazz and country music (2012), even though most of the essays included in the volume rely on information gathered through working, carrying out interviews, or observing studio practices as they happen.[8]

Other scholars in the same field prefer a historical take in their reconstruction of the work done in the studio within the cultures of popular music; but, again, although their work relies very much on interviews with professionals, they do not overtly acknowledge their work as ethnographic. An example is Susan Schmidt-Horning's thorough history of studio recording in the USA, *Chasing Sound*, in which she puts forward an important concept, that of a 'tacit knowledge' shared among studio professionals: it encompasses the new skills recordists began to develop in the early days of recording which: «constituted an autonomous body of technical knowledge separate from science» (Schmidt-Horning 2013: 25).[9] The existence of

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8 Much the same could be said of many of the articles collected in *The Cambridge Companion to Recorded Music* (Cook *et al.* 2009); here, too, the dialogue between academics, producers and musicians is part of a general focus on recorded artefacts as 'texts' (i.e. cultural objects to be interpreted and analysed according to their cultural and structural characteristics), rather than as 'products' of complex relational interactions between people and technologies.

9 Other similar attempts are to be found in David Morton's *Off the Record* (2000) or Greg Milner's *Perfecting Sound Forever* (2009); although this research is aimed at a different readership and has a different background, it is entirely based on documents, specialist and popular journals, newspapers, and occasional communication with professionals. Although Morton puts forward the practices of the studio as integral to his interests, the reconstruction of the human and personal dynamics within the studio are relatively overshadowed by his focus on technological change and on the relationship with broader cultural transformation.

such a body of techniques and knowledge is what I shall call in the final part of this essay the 'common practice' related to studio work. One of the possible approaches I would advocate for an ethnography of the recording studio is precisely related to these kinds of 'benchmark processes' or: «what is taught both theoretically and vocationally, disseminated via textbook and manufacturer guidelines» (Bennett 2019: 76), in opposition to the 'maverick techniques' defined as «the ones that musicians [...] remember, that stick out above the mundanity of common studio practices» (Bennett 2019: 75). The potential for these layered conventions and widely shared modes of approaching studio work could be the starting point for an ethnography of the 'culture of the recording studio'; they set standard, orthodox ways (more often theoretical than applied, I suspect) to perform certain tasks, against which particular examples and exceptions abound. Nevertheless, they are interesting because they constitute a sort of common ground that informs discourses, concepts and operating styles in and around the recording studio as part of a broader socio-technical global culture.

There is also a tradition of scholars who posit the creative process as crucial for the interpretation and analysis of the work of some particular performers, genres or labels, and who reconstruct their practices inductively; their research is thus based on the reconstruction of the workflow in the studio according to memoirs, biographies, interviews, and records, as well as bootlegs and outtakes issued after the original release.[10] In such a category I would also include the literature that collects 'session logs' – such as Heylin (1995) or Lewinsohn (1988) – whose interests are more related to a reconstruction of what musicians have played, and what songs and sessions have been released on whatever official or unofficial discographic release. The amount of data they collected and made available to scholars (also in the form of documents and interviews) represents a useful resource for the reconstruction of the practices of the recording studio in the vein of a retrospective ethnography focused on the reconstruction of personal, relational dynamics and processes.

A different category encompasses scholarly works that approach the studio as a creative environment in order to attempt a broad theoretical formulation of the processes that take place therein, as in the works of Phillip McIntyre (2016) and Paul Thompson (2016; 2019). Their importance is due to their degree of abstraction and systematisation, largely overlooked in other approaches, which provides scholars in this field of study some ready-made models and concepts to work with (or against, in those cases when practice and theory do not match). An extended ethnographic period of research – from 1994 to 2004 – was at the core of McIntyre's elaboration of the 'system model' derived from Csikszentmihaly (1997). At the time of his research, McIntyre was involved in the music business at various levels, and this offered him access to a vast number of Australian professional musicians (ranging from worldwide acts, such as the INXS, to local celebrities) which provided what he defines as: «an insider's viewpoint difficult for others to obtain» (McIntyre 2016: 49). In applying the 'system model' – in the version revised by Kerrigan (2017) – to the studio environment, Paul Thompson further implements the theoretical extent beyond its previous formulations by introducing the scalability of the system at different levels (individuals, group, working environment) and the conceptualisation of the whole system in terms of a nested configuration of field-domain-individual triads. Each level performs a specific task with regard to innovation, consistency with the habits of the field, and position in the broader domain (Thompson 2016: 85). A further contribution with regard to creativity is Allan Watson's *Cultural Production in and Beyond the Recording Studio*, in which he develops a thorough examination of the practices related to recording from a spatial (the studio as a location *per se*, but also as a place in a broader cultural geography) and relational perspective, thus also emphasising the emotional labour that takes place within its walls, which is no less relevant than any other technical or performing activity (Watson 2015: 47-61). In such a tradition of scholarly work, the studio is understood as a site where the entire process of production and reception is replicated and simulated on a small scale in order to achieve the best possible result to be transferred to a mass-distributed product, so that:

10 See, for example, Doyle (2005), Flory (2010).

> the challenge for ethnographies of studios is to seriously consider what it means to produce things that do not exist. [...] Producers need a studio because things are open, they are not given, they do not belong *a priori* to one kind of professionals – which implies that a professional can only be a bad spokesperson, even of things he knows better. She needs other eyes, other ears than hers. Studio is a place where realities may be *deployées*, spread out, made present, re-presented – with a hyphen – by diverse professionals (Hennion-Farías 2016, interview 1).[11]

The essential nature of the studio is a place where relationships between trusted professionals, each with his/her own specialised skills, can develop new ideas by working towards the realisation of suitable products for the audience they are aiming at. How these relationships are established, what kind of unspoken assumptions and conventions they imply, and on what grounds they are based, are questions of specific interest to scholars concerned with the understanding of the power and relational dynamics involved in record production.

In concluding this overview of the state of the art of the literature relating to the recording studio and popular music, I would like to underline how much the project of an ethnography of the recording studio can converge with the idea of 'acoustemology' proposed by Steven Feld as a methodological background that: «engages acoustics at the plane of the audible – *akoustos* – to inquire into sounding as simultaneously social and material, an experiential nexus of sonic sensation» (Feld 2017: 85). What such a perspective adds to the existing approaches is the attention to sound and its production techniques – and hence also to the work done in the studio in capturing, modelling, mediating and transforming performance into an artefact – as a site for developing an insightful perspective on living musical practices and their social relevance.

Understood in this way, studio practices also actively cross the disciplinary boundaries between what is pertinent to popular music studies and ethnomusicology (and even musicology, if the focus is widened to include art music, experimental, and avant-garde forms of music-making), as long as these consider record production as part of their research agenda. The benefits of such a convergence can be mutual: popular music studies gain a connection with an already developed and articulated set of methods for approaching 'fieldwork' – even though we might discuss where the 'field' should be located –, and the investigation of traditional music practices gains a vantage point on the scale of the global circulation and production of music:

> We might expect the widely disseminated and multifarious recordings of popular music as broadcast from centres across the planet to have the capacity, at some point, to open up window on music-making in another cultural context. The view here is that popular music – as highly mediated, chart tailored, hopefully trendy, record company funded and produced, designed for music profit – can indeed provide a bridge to other musical worlds (Wade 2015: 16).

Again, the crucial move is to place the recorded artefact at the centre, as a way to redraw the boundaries and mutual connections between different fields of music studies, understood in terms of a wide set of practices and concepts. Addressing record production as a specific site of music-making, where performance is shaped, transformed, and modelled according to criteria that are neither 'natural' nor 'transparent', nor driven exclusively by the commercial desire for commodification, is a first step on this path towards a convergence between these different disciplinary traditions.

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11 In the interview quoted here, Hennion summarises and elaborates on his work related to his extensive fieldwork research into the production of the *chanson de variété* in French popular music and his concept of the studio as a site for multiple mediations of culture involving a plurality of actors (Hennion 1983; 1989).

Gaining Access to the Recording Studio: Reflections on some Recent Research Experiences

If we wish to consider the studio as an ethnographic research field, we should first perhaps evaluate whether scale matters when speaking about record production, and how the conditions of accessibility to such kinds of environments might jeopardise the fieldwork and the gathering of data for our research. Is there any difference, in terms of addressing and understanding the problem-solving processes that the phonographic elaboration of a song implies, when we are dealing with a grassroots recording session for a local band or, conversely, with a huge mainstream pop act? I am inclined to say that the difference might be quantitative rather than qualitative, according to the amount of resources, technology and time that are available in the different situations. What these circumstances have in common is the relationship they establish with the medium, and any act of mediation is subject to the influence of the uninvited (yet inevitable) presence of the public in the studio, to the extent that what happens there has been defined as a: «*simultaneous production-consumption* process» (Hennion 1983: 188-192).

In order to elaborate on this point, let me report here two first-hand experiences I have had in my recent work, each related to a different scale of performers and acts, but linked by their shared reference to the recording studio as the crucial site for the activities I was studying. The first is related to two major figures in post-war Italian popular music, for whom I was asked by the Istituto dell'Enciclopedia Italiana to write a biographical profile for the project *Italiani della Repubblica*. In dealing with important figures such as Lucio Battisti (Bratus 2017) and Rino Gaetano (Bratus, 2020), I tried to take an original perspective on their work by asking sound engineers, producers, assistants and fellow musicians about their experiences with them in the recording studio.[12] In both cases this sort of retrospective ethnography, which documented events and practices that happened long before I was even born, provided relevant insights that I was then able to include in my critical reading of their life and work.

For reasons of space, here I shall offer only an insight related to Lucio Battisti. A revelatory moment in this research took place during my interview with Walter Patergnani, the sound engineer with whom Battisti worked in his early career at the Dischi Ricordi label. Patergnani explained to me that his relationship with Battisti was very friendly and collaborative, since the latter had had a strong technical education during high school; he was thus able to ask the technicians to solve problems and to build new devices for the treatment of sound, miking and post-production by foreseeing the practicalities that these implied. This helped me to frame my subsequent interpretation of Battisti's artistic and professional story as one closely related to the studio as a creative environment designed to produce artefacts that stand for themselves, and for his record production in terms of the development of a consistent interpretation of the 12-inch 33 RPM album 'format'. What struck me in this respect was that, after years with the Ricordi label, when Battisti founded his own recording and record production company,– Numero Uno, a joint venture with other musicians and Mogol, the lyricist with whom he worked on most of his records, – both sides of each of his albums consistently contain 4 tracks and are all of a very similar total duration.[13] My hypothesis is that as a result of his technical knowledge (and his relationships with technicians and sound engineers), he was placed in the best position to understand the production of a record as the realisation of a highly refined material object: the similar (and not excessive) duration of the two sides of the album resulted in a balanced trade-off between groove distancing and depth, and this in turn ensured the best results in terms of

12 A further example of a similar approach may be found in this same volume in Vera Vecchiarelli's chapter about Fabrizio De André's performing and creative practices in the recording studio.

13 Some data in this respect can give a rough idea of the degree of consistency between the different albums. Taking into account the first albums produced with the Numero Uno label and the last release for Dischi Ricordi (for the latter Battisti was granted total creative control), the duration of the A-side and B-side of records (all containing 4 tracks each) according to the tracklist printed on the record is as follows: *Amore e non amore* (1971), A-side 18'26 – B-side 17'10''; *Umanament uomo: il sogno* (1972), A-side 16'53'' – B-side 16'52'', *Il mio canto libero*, A-side 18'53'' – B-side 18'59'', *Il nostro caro angelo* (1973), A-side 20'03'' – B-side 20'20''. Interestingly enough, the same format in his record production continues into the final years of his career, when the LP was increasingly substituted by other formats (cassettes and CDs) which did not have the same limits in terms of space or sound results.

audio quality. The awareness of the final result, in other words, seems to shape the entire LP as a cohesive artistic product.

The second experience I can refer to in this context is more attuned to a direct contact with the process of songwriting and production (actually, pre-production in proper terms) in popular music, even though not in the context of a traditional studio setting. *La Città della Canzone* (www.lacittàdellacanzone.org) is an annual workshop for aspiring singer-songwriters organised, from 2013 onwards, by a team of professors, post-graduates and graduate students from the Department of Musicology and Cultural Heritage at the University of Pavia (Cremona). Each year, three or four songwriters are chosen by the organising committee to bring their own tentative draft for a song to the week-long workshop, during which they work under the guidance of an established professional in the field (usually a singer-songwriter him/herself or a producer) at finishing the song and recording a 'demo' track. I will not go into details regarding the project here; in the context of this discussion let me just mention the extent to which a situation of this sort can provide helpful glimpses into the dynamics of the creative process of songwriting. In such circumstances we, as the organising staff, have realised how much the choice of finalising the result on a demo track has the effect of streamlining the work during the week, and how this demonstrates the need for recording techniques to be adapted to accommodate the working habits and priorities of individual songwriters, producers, and specific tracks. Finally, the fact that the workshop takes place within the Department (the setting is in spaces at the university, teachers in disciplines related to popular music routinely take part in the activities,[14] and local students participate as musicians and/or creative co-workers) helps in the formation of a sort of 'studio condition' where isolation from the external world and a build-up of trust among the participants is easily attained. In such a context it is not hard to establish the kind of laboratory-like, collaborative environment which is characteristic of the studio as a site where problems are posed and solved through a recursive and concerted trial-and-error process by a group of people who are constantly aware that their shared goal is to produce the best possible result, given the temporal and material constraints they have to face.

The role of trusted relationships is part and parcel of the current theorisation of the studio: such a place is increasingly understood as a site where epistemic-isation happens, meaning that: «our grasp of the world is routinely mediated through expert knowledge and abstract systems» (Michael 2016). The studio needs to be investigated ethnographically, precisely because these abstract systems are culturally embedded in the structures of the reference community that produces them and rest on relationships marked by differences in cultural and economic capital between the parties involved in the process. In the studio, human relationships meet technology and converge towards the figure that Akrich, Callon and Latour label the 'spokesperson':

> the innovator can only *put himself in the hand of some (very rare) speakers, of whom he never completely knows who or what they are representing, and whether indeed they really are representing them.* Doubt, trust, then gratitude and admiration, or on the contrary, suspicion, defiance and even hate, are at the heart of innovation. These passions do not interfere with the work of the researchers or researcher; they are the innermost and fundamental constitutive elements of their work (2002: 222).

The role of the spokesperson can be superimposed on that of the producer in the production chain of a recorded musical artefact as the person that guarantees the conditions for researching innovation. In the research for newness, producers have the role of ensuring that studios fulfil their role of 'immunised experimental spaces' serving a double function:

> On one side, they shelter unknown ideas, concepts and moves. They protect them from destructive coincidences and provide 'breathing space' for designs, narratives or dissonant compositions. The frames provide opacity and secrecy; they hinder illicit copying and avoid premature, distorted accounts. On the other side, frames help to intensify the interactions that take place within their confines. Within the limitations of these two kinds of spaces the frequency of topical communication is increased, trust between participants builds up and the scrutiny of others is endured (Hutter-Farías 2017: 439).

14 *La Città della Canzone* workshop was formally included, from the sixth edition in 2019, as a practical seminar within the courses of Popular Music Studies (Alessandro Bratus) and History of the Auteur Song (Stefano La Via).

The relevance of this is what the project *La Città della Canzone* highlights: a bunch of strangers can become involved in a common artistic endeavour because of the personal involvement in the creative process on the part of all the participants. What equalises all the people involved in the workshop is the focus on the task of creating the new song and thus the sharing of a basic sense of intimacy and mutual involvement where they can feel safe even when they are outside the boundaries of their respective comfort zones.[15] In this perspective, the participants-observers: «cannot restrain themselves from becoming 'native' members of collectives and thus actively involved in creation processes» (Farías-Wilkie 2016, ch. 1). By sharing a common creative aim, they are involved in the 'vibrancy of the studio environment', an experience that can be experienced rather that recounted, felt rather than measured (Bates 2016: 19).

The idea of the studio as a sheltered location also resounds with the current transition towards the 'networked studio' as a sort of 'non space' and 'non place' within a historical trend of disconnection between the studio and its surroundings, since it is increasingly placed within private spaces, yet connected to a larger web of other 'non spaces' and 'non places' (Théberge 2004: 779). In this transformation an essential element is the 'design of the interior acoustic space of the studio and its detachment from the outside world' (Théberge 2004: 763), as the studio provides both *insulation* from the unwanted noises coming from the outside world and the *isolation* that provides the laboratory-like conditions for creativity.[16] The need for isolation had already been highlighted by Théberge in his previous book on the use of technology by musicians when he described the home studio as: «above all, a private space. Studios tend to be located in bedrooms, dens, or basement rec rooms, far from the main traffic of everyday life» (Théberge 1997: 234). A quiet place to record and assemble the recordings made there or elsewhere is required to achieve a satisfactory result in terms of the quality of a recorded track, but perhaps it is also a symbolic shield from everyday life that makes the studio an ideal creative environment. Whatever conditions are thought to be key to establishing the best possible conditions for creativity to develop can contribute to shaping the design of the specific configuration of each studio. From this point of view, the studio is a 'non space' because it should be built so as to be adaptable to a number of different working methods and conditions, according to the desired result in terms of sound, the individual qualities of the musicians, and the availability of time and economic resources. At the same time, each particular studio builds its own specific environment by assembling a number of analogue and electronic devices, by arranging the space in ways that accommodate both the needs of the musicians to interact and that of a good acoustic rendition, by setting up the conditions that allow communication with the technicians and sound engineers, and many other details that contribute to shaping its own identity. From this point of view, the recording studio is all but a neutral place, it is actually a liminal space that allows all the participants to find themselves in a space entirely devoted to the creative act, whose specific features and configuration should be carefully considered to best fit the needs of all the people working there. The management of the dynamics happening within the walls of such a space is the task of the producer, a key figure who underlines the importance of a balanced focus between the technical and the relational sides of ethnographic research on the recording studio, and perhaps of the primacy of the latter over the former.

15 'As cultural historians and sociologists have suggested, the modern invention of intimacy did not just involve an interpersonal space protected from the public view, but also one in which individuals engage with each other in a comprehensive manner, not reducing each other to specific public roles' (Farías -Wilke 2016, ch. 1).

16 Théberge draws these concepts and terms from the writings of Antoine Hennion (1989, in particular), who uses the French term *isolation* precisely because it affords this kind of double meaning.

Abstracting a Common Studio Practice: An Ethnographic Take on Manuals and Textbooks

In the alternative between an ethnography 'in' or 'about' the recording studio[17] the focus on the final product helps to shift the researcher's attention from exclusive attention to technology to the relational dynamics established during work in such a place. As the moment in which different 'performative concepts' (Bratus 2016: 126) related to a specific piece of music apparently find a synthesis in a recorded artefact, the studio is a site for negotiations and confrontations: between different sensibilities, ideas about the qualities of sound and the preferences of the audience, and – more generally – related to the overall communicative outcomes of the material object being prepared. My point in assessing the scope of an ethnography of popular music studio production is to shift the focus from a technological history of the tools and phonographic formats to the creative use of the sound capturing and editing devices as relational triggers for the rise of the modern conception of the studio as a working environment for collective creativity. This is not meant in any way to downplay the relevance of technological change *per se*; rather, it is a reminder of the relevance of the particular interactions that take place within the isolated and insulated walls of such a special location, thus defining its proper role in the production chain of recorded artefacts. In a similar vein, in the index of Albin Zak's groundbreaking book on studio production – *The Poetics of Rock* – the 'studio' entry redirects the reader to 'recording places' (2001: 157). Such a link is thought-provoking: even within the industrial framework of mainstream rock on which he focuses – and to which he belongs as a recordist himself – the studio is considered only as a place where recording sessions are organised, and it does not necessarily include the presence of an architectural structure with particular acoustic features, or the presence of specific pieces of equipment (*ivi*: 99-107).

In the attempt to develop a specific discourse about the 'common practice' of the recording studio, a first exploration of the instructional literature (manuals, textbooks etc.) can lay the ground for future research. In doing this, for the sake of space and in view of the specific focus of this article, I shall consider only published works, despite the fact that a great deal of information about these practices is today delivered in the form of video lessons, online tutorials, and streaming of recording or mixing sessions. Nevertheless, for the kind of cultural prestige still retained by the book (or the manual, in this particular case), I think this can still be a valuable source of information about a shared knowledge of 'how things should be done'. Such a shared set of unwritten rules, even when routinely broken, can outline the boundaries of the broader 'domain' of the audio recording culture (in 'system model' terminology) with which the creative contribution of the individual is confronted and – eventually – validated, so as to become part of the specific 'field'.

I am not interested here in the technicalities related to specific aspects of recording studio practices; rather, I am eager to see what kind of assumptions the manuals make about the techniques employed in the recording studio with regard to general concepts such as musical genres and the related audience expectations. A first case in point in this respect concerns the sound of the drum kit, an instrument whose recording presents a wide variety of possible configurations. In discussing this topic in technical literature, jazz seems to be one of the main reference points in terms of the sound aesthetics of the drum kit: quite a few microphones are usually employed in recording this genre, although the specific recommended configuration and respective positions of the individual mikes may vary. John Eargle, for example, recommends a 3-microphone setting (a dynamic or condenser for the kick drum and a pair of condenser cardioids for overhead) for bands up to 9 elements, so as to retain the live feel of a 'real' band, with additional 'spot' microphones on individual percussions when required (Eargle 2006: 269-270; 279-286). A small Italian reference manual, while suggesting that each element of the drum kit should be miked separately, begins by saying that: «in *jazz*, usually miking is kept to a bare minimum, so as to highlight and not to interfere with the naturalness

17 For an articulation of such a distinction, see Marco Lutzu's chapter in this same volume.

of the performance» (Coppola 2004: 83).[18] The connection between a 'livelier' sound and a small number of microphones is repeated by John Shea, although he does not specifically mention jazz: «Mic placement is also dependent on the sound the producer is after. [...] If a more live or open sound is sought, the drums will be placed in a more reflective area of the studio and fewer mics will be used» (Shea 2005: 390). In *Modern Recording Techniques*, Huber and Runstein confirm that, apart from the essential microphones for the kick and for the snare drum: «At an absolute minimum, the entire drum set can be adequately picked up using only four mics by adding two overhead pickups, either spaced [...] or coincident [...]. In fact, this 'bare bones' placement was, (and continues to be) common on many classic jazz recordings» (2014: 157). When recounting his experience recording a small jazz piano-bass-drum trio in a live situation, Mike Senior remembers how the best result in terms of balance between bass guitar and bass drum was achieved by muting the AKG D112, which was originally positioned in front of the kick to capture its sound. He ended up using the rear sensitivity lobe of the figure-8 polar pattern of the AKG C414 already used to record the bass for capturing the sound of the kick and playing around with the placement to balance the volume between the two sound sources (Senior 2015: 344-348).

In his discussion of the recording aesthetic in relation to performance, William Moylan opposes a 'production transparent recording' to the 'enhanced performance' that leads to the 'perfect performance' of the work released on record (2002: 254-261). Although I find the concept of 'work' when ascribed to the released track a little problematic – but this is a topic I will not discuss here – what is interesting, once again, is the mention of jazz when he speaks about the 'live acoustic recordings' on the 'transparent' side of the spectrum: «while it is common in orchestral and other art music formats, it is equally appropriate for jazz, or any other music recordings where the performers are refined in their sensibility to and control of their relationships to the whole ensemble» (Moylan 2002: 256). What is interesting is the consistency across all these textbooks regarding different moments of the work carried out in the recording studio, all of which document a shared underlying baseline conception of what a 'live' sound is and how to achieve such an effect on record. What is all the more telling in cultural terms is the idea of 'realism' they entail, especially in one specific detail that I find particularly intriguing. A shared concern that all these recommended miking techniques demonstrate is the attention to the kick drum, which requires a special, dedicated microphone to enhance its frequencies at the lower end of the spectrum (the first formant is around 60 Hz). This can be interpreted in the sense of a fundamental simulation of live perception, where the vibrations of the bass drum are more felt by the body than heard; in order to make up for such a lack of physical vibration, a special boost to the typical frequencies of this piece of the drum kit is needed in the recording. The more 'realistic' the music should sound, the more space and breath the bass drum should have in order to sound convincing and to be able to evoke the performative situations associated with this particular kind of music-making. This indication, as for any kind of successful simulation, is the product of a common, shared sense of the listening expectations of the audience, for whom these cultural connotations are significant.

Another example of a similar connection between sound and genre regards EDM music and the delay effect: in this case too, the genre label and a particular way of treating the sound are linked in different sources (with none quoting the others) across the technical and instructional literature I surveyed. Mike Senior, for example, wrote in his *Mixing Secrets for the Small Studio*: «Polyrhythmic delays are the stock in trade of many dance styles, because they allow you to blow the average raver's chemically added mind with lots of trippy-sounding audible delay repeats while safeguarding the essential rhythmic clarity of the groove» (2011: 258).[19] The electronic generation of different flows of temporal marking is thus characteristic of tracks that try to evoke fantastic landscapes but, at the same time, maintain a fundamental rhythmic

18 «Nel *jazz* normalmente la microfonazione si effettua ai minimi termini, per evidenziare e lasciare invariata la naturalezza dell'esecuzione». My translation.

19 He defines 'polyrhythmic delays' as delays that 'are tempo related but don't correspond to simple note lengths. Common examples are three-eighth-note and three-sixteenth-note delays' (Senior 2011: 258).

clarity at their deepest core. The same concept is elaborated by Roey Izhaki in his manual *Mixing Audio*, which has a specific paragraph under the 'Delay' chapter called 'As a key tool in dance music' that reads:

> Delays are one of the most common tools in dance music production. They are used with virtually any combination of settings to enhance many aspects of the production and for a few good reasons. For one, dance music has a profound rhythmical backbone, and tempo-sync delays can easily enhance rhythmical elements – no other tool has such a strong timing link as delays. Then, sequenced dance productions call for little or no natural sound stage, so delays can easily replace the role of the more natural-sounding reverbs. [...] delays can be applied on nearly every track, and it takes a while before things start to sound too weird (Izhaki 2012: 392).

Again, the evocation through sound of unrealistic spaces, as well as the groove-based quality of the music, is highlighted here as part and parcel of the aesthetics of the genre and of the features of such sound objects.

According to the same principles, Gibson in *The Art of Mixing* advises against the use of delays and the overlapping of many sounds in the mix that 'leaves no space unfilled between the speakers' with keywords such as 'fun, creativity, catharsis, intrigue, perspective apparent' (Gibson 1997: 122). Elsewhere, although he does not specifically mention electronic dance music – perhaps because these styles had not acquired such vast currency at the end of the 1990s, as far as what is covered by audio production manuals –, he associates the use of a long delay time with a 'dreamy' result in terms of mix (*ivi*: 111). In wider cultural terms, the effect affects the listener's attention because it implies an integration between the human and the mechanical element within the recording studio, as:

> it stems from the integration between mechanical time and musical time. [...] The machine-made replica calls forth a metaphoric aura encompassing such images as mirror, memory, shadow, doppelganger, color, mask, ghost, projection, hallucination, hiccup, ricochet, quiver, and pulse. Using an echo as a compositional resource represents a willing invitation held out by recordists to their machines to join the creative process (Zak 2001: 76).

The echo, in other words, allows the machine to gain a proper (though simulated) agency as far as the listener's perception is concerned. In this way, it calls into action strongly established conventions that have developed throughout the history of listening to recorded sounds and gives rise to particular mental pictures of the virtual performance presented on record.

The idea of an ethnography of the recording studio recurs a number of times in the recent edited collection *Mixing Music* (Hepworth-Sawyer-Hodgson 2017). Not a straightforward manual, the book opens the Focal Press *Perspectives on Music Production* series, an editorial endeavour that aims at fostering dialogue between musicians, academics, and professionals working in the creative industries so as to promote renewed approaches to these topics, both from the point of view of teaching and of critical thinking.[20] The idea is that from such a dialogue a common ground might flourish with the potential to: «draw successful artists directly into the academic discussions about their work» (Krotz-Hodgson 2017: 141) and, at the same time, provide academics with relevant examples of the field they are studying. The case regarding the delay effect mentioned in the above paragraph highlights the extent to which the practices of mixing are specific to a particular genre (or market, as Krotz himself would say) (*ivi*: 140). In the virtual roundtable on EDM production, Rick Bull mentions how the mix is aimed at: «allowing the listener to best inhabit the desired sonic imagination of the author» (Devine-Hodgson 2017: 154),[21] while Ryan Chynces further emphasises the pervasive use of tools for audio processing as part of the peculiarities of the genre:

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20 For an overall presentation of the titles in the series and to access detailed information about each volume, see https://www.routledge.com/Perspectives-on-Music-Production/book-series/POMP, last access December 28th, 2023.

21 Later in the text, Bull defines dance music as 'so highly artificial', a comment perfectly aligned with the points raised in the above paragraph regarding the intricate result of multi-layered delays in tracks in the genre (Devine-Hodgson 2017: 161).

> I'd also say that "producing" is part of the composition process in electronic dance music, since new sounds, combinations etc., emerge during the production process depending on how heavily (and creatively) various effects are applied. While rock artists may "go lighter" on processing effects during the production process (to maintain that "live performance believability"), electronic music artists are under no such constraints (*ivi*: 166).

We see here once again that there is a fair degree of agreement among practitioners about the acceptable or unacceptable features of a mix, according to what they think the audience expectations and conventions related to a specific category of musical artefacts might be. This widespread and shared – though often unspoken – knowledge is what constitutes the level of the 'common practice' I would propose as one of the possible targets for an ethnography of the recording studio, because of its potential to offer interpretative keys regarding some recurrent features of the globalised, artefact-based music culture we inhabit. As seen in the examples of jazz and EDM, the characteristics of particular genres are inextricably connected to a specific sound, which in turn leads to broader assumptions regarding their cultural value and their association with a particular 'ecological' understanding of the kind of music-making practice (real, virtual, hyper-real etc.) that the phonographic artefact seeks to present to its listeners.

Conclusions: The Studio as a Set of Practices

The focus on the studio as a place for ethnographic inquiry in popular music leaves open a series of crucial issues, which I would briefly like to summarise at the end of this article as an agenda for future research and further reflection. First of all, an ethnography of the recording studio can be of help in the disentanglement of sound as a communicative device from the production of meaning, as this is the place where final decisions are made regarding the spatial configuration of the performative space implied in the recorded artefact (including the position of the listener), with all the relevant consequences on the final understanding of the resulting sonic utterance. As an act of representation, recorded music shares this broad topic with another performative recording art such as cinema, even though the former lacks the referential dimension offered by the images of the latter. Nevertheless, the recorded artefact implies a kind of staging, a term that: «refers to aspects of the 'event' that are external to the performances and yet contribute to the meaning we perceive» (Zagorski-Thomas 2014: 73). From this point of view, the studio becomes the place where discursive configurations acquire a material form, for both immediate consumption and future preservation, and where the 'problem' of representing a story, a feeling, a situation through sound is faced and (hopefully) solved.

A second key issue is the definition of the studio, a task which, more often than not, is taken for granted and not overtly articulated. My attempt to provide a working definition for an ethnography of the studio for popular music studies goes in the direction of a definition of these 'non places' and 'non spaces' as a relational set of practices, steering the main attention away from the technological components of the environment to the activities of the people involved in the process. The studio, therefore, is not where the recording and prototyping of a master take is realised; rather, it is interesting as a set of relationships between people, machines, software and sounds, with the common aim of building a material object into «coherent, bounded and affective forms» (Farías-Wilkie: ch. 1). In this regard, Anne Marie Mol, when talking about the best method to understand medical practice, advocates what she calls a 'praxiographic approach'. This requires us to acknowledge the multiplicity of objects, practices and techniques related to a given field, instead of separating them according to predefined categories and/or academic disciplines (Mol 2002: 157). Such an attitude holds even truer when dealing with a recursive trial-and-error, problem-solving process such as the realisation of recorded artefacts as 'forms of crafted presence' (Law 2004: 146), in which *assemblages* of tools, techniques, and individual and collective skills give rise to *allegories* of the performer and of the performance/audience relationship.

A final open issue I would only briefly mention in concluding this overview of the ethnographies of studio production in popular music-related practices is related to another

level of representation, that of social roles and conventions. In terms of power relationships, the act of creative innovation so eagerly sought after in such places comes about in environments organised around professionals who are, for the most part, male and white. The issues related to gender imbalance and to the control of the means of production can be traced back to well-known historical reasons in the US, for example:

> For the first century of sound recording, the field of audio engineering and recording studios in particular comprised a profoundly white male-centered culture that reflected corporate culture at large and technical professions in particular. It has its origins in the mechanical engineering background of many of those who were the first operators of recording machines, like the brothers Raymond and Harry Sooy of Victor Talking Machine, and it continued with the radio engineers of the 1920s and 1930s and the generation of World War II veterans who had trained in the signal corps and went on to build the recording studio of the postwar period (Schmidt-Horning 2013: 9).

The idea that different social groups can express different 'sounding cultures' and that a different background in terms of social groups and identities can result in a different use of technology, with the relevant consequences in terms of the final sounding outcome, is not completely new but, on the whole, still remains overlooked in the current literature on popular music.[22] In this respect the avenues for change are cultural rather than specific to the music industry; from this point of view the fact that the current rise in the number of women producers can be linked to the increasing possibilities for the studio to be 'brought home' thanks to digital technologies is more a demonstration of a persisting condition than a sign of any real progress (Wolfe 2012). Even though gender has been investigated from a number of points of view since the end of the 1990s, other aspects of such an imbalance still require further investigation, such as race- and class-related forms of inequality in the control of studio technology and record production. Some general observations on such a topic emerge in Ray Hitchins' ethnographic account of Jamaican popular music, noting that a strict 'door policy' has been exerted in regard to access to studio facilities as a means to undermine any possible form of competition between similar products on the market: «the general assumption that the existence of a recording studio or a recording session indicates legitimate public access is erroneous» (Hitchins 2014: 45). The studio is a private space where goods for public consumption are realised, therefore policing access has consequences on the cultural context in which the products themselves circulate. As making a record is an operation related to representation – of meaning, of performance, and of social relationships–, research into studio ethnographies continues to be relevant as long as it considers the studio as a site where key issues in culture, aesthetics, technology, materiality, and power relationships can be investigated as part of a broader socio-technical environment.

22 The marginalisation of women producers, engineers and musician within the Liverpool scene reported by Sarah Cohen in the collection *Sexing the Groove* (1997) has been since then investigated in different musical communities and genres of popular music (cfr. Leonard 2007, 51-60; Farruggia 2012: 115-140). For some pertinent observation in this regard and the reference to the activities of a female sound engineer such as Boden Sandstrom, see also Facci (2003: 806-7).

References

AKRICH Madeleine, Michael CALLON, and Bruno LATOUR
2002 'The Key to Success in Innovation Part II: The Art of Choosing Good Spokesperson', *International Journal of Innovation Management*, VI, 2: 207-225

AUSLANDER, Philip
2008 *Liveness. Performance in a Mediatized Culture*, Routledge, London-New York

BARZ Gregory, and Timothy J. COOLEY (eds.)
2008 *Shadows in the Field. New Perspectives for Fieldwork in Ethnomusicology*, 2nd edition, Oxford University Press, Oxford-New York

BAUMAN, Richard, and Charles L. BRIGGS
1990 'Poetics and Performance as Critical Perspectives on Language and Social Life', *Annual Review of Anthropology*, XIX: 59-88

BATES, Eliot
2016 *Digital Tradition: Arrangement and Labor in Instanbul's Recording Studio Culture*, Oxford University Press, Oxford-New York

BENNETT, Samantha
2019 *Modern Records, Maverick Methods: Technology and Process in Popular Music Record Production 1978 – 2000*, Bloomsbury, New York-London

BERGER, Harris M.
1999 *Metal, Rock, and Jazz: Perception and the Phenomenology of Musical Experience*, Wesleyan University Press, Hanover-London

BORN, Georgina
2005 'On Musical Mediation: Ontology, Technology and Creativity', *Twentieth-Century Music* II, 1: 7-36
2011 'Music and the Materialization of Identities', *Journal of Material Culture* XVI, 4: 376-388

BRACKETT; David
2005 'Questions of Genre in Black Popular Music', *Black Music Research Journal*, XXV, 1-2: 73-92

BRATUS, Alessandro
2016 'Performance del/nel testo: per un approccio analitico alla mediazione tecnologica dell'evento performativo nella *popular music* registrata', in Michela Garda and Eleonora Rocconi (cur.), *Registrare la performance. Testi, modelli e simulacri tra memoria e immaginazione*, Pavia University Press, Pavia: 109-130
2017 'Lucio Battisti', in *Dizionario Biografico degli Italiani - Italiani della Repubblica*, (http://www.treccani.it/enciclopedia/lucio-battisti_%28Dizionario-Biografico%29/ last access December 28th, 2023)
2020 'Rino Gaetano', in *Dizionario Biografico degli Italiani - Italiani della Repubblica* (https://www.treccani.it/enciclopedia/rino-gaetano_(altro)/, (last access February 25th, 2024)

BRØVIG-HANSSEN, Ragnhild, and Anne DANIELSEN
2016 *Digital Signatures. The Impact of Digitization on Popular Music Sound*, MIT Press, Cambridge-London

BURKHALTER, Thomas
2013 *Local Music Scenes and Globalization. Transnational Platforms in Beirut*, Routledge, New York- Abingdon

COHEN, Sara
1991 *Rock Culture in Liverpool: Popular Music in the Making*, Clarendon Press, Oxford
1997 'Men Making a Scene. Rock Music and the Production of Gender', in Sheila Whiteley (ed.), *Sexing the Groove: Popular Music and Gender*, Routledge, Abingdon, pp. 17-36

COOK, Nicholas, Eric CLARKE, Daniel LEECH-WILKINSON and John RINK (eds.)
2009 *The Cambridge Companion to Recorded Music*, Cambridge University Press, Cambridge

COPPOLA, Andrea
2004 *Il fonico: Metodi e tecniche di manipolazione del suono*, CieRre, Roma

CSIKSENTMIHALY, Mihaly
1997 *Creativity: Flow and the Psychology of Discovery and Invention*, Random House, Sidney

DEVIN, Andy, and Jay HODGSON
2017 Mixing In/and Modern Electronic Music Production', in Russ Hepworth-Sawyer and Jay Hodgson, *Mixing Music*, Routledge, London-Abingdon: 153-169

DOYLE, Peter
2005 *Echo and Reverb: Fabricating Space in Popular Music Recording 1900-1960*, Wesleyan University Press, Middletown

EARGLE, John
2006 *Handbook of Recording Engineering*, 4th ed., Springer, New York

ECO, Umberto
1986 *Semiotics and the Philosophy of Language*, Indiana University Press, Bloomington

EISENBERG, Evan
2005 *The Recording Angel: Music, Records, and Culture from Aristotle to Zappa*, Yale University Press, New Haven-London

FACCI, Serena
2003 'La rappresentazione del rapporto uomo-donna in alcune musiche africane', in Jean-Jaques Nattiez (cur.), *Enciclopedia della Musica Einaudi*, vol. 3, Einaudi, Torino, pp. 786-810

FARÍAS, Ignacio, and Alex WILKIE
2016 'Studio Studies: Notes for a Research Programme', in Ignacio Farías and Alex Wilkie (eds.), *Studio Studies: Operations. Topologies & Displacements*, Routledge, London-New York: ch. 1. Kindle

FARRUGGIA, Rebekah
2012 *Beyond the Dance Floor: Female DJs, Technology, and Electronic Dance Music Culture*, Intellect, Bristol

FELD, Steven
2017 'On Post-Ethnomusicology Alternatives: Acoustemology', in Francesco Giannattasio e Giovanni Giuriati (eds.), *Perspectives on a 21st Century Comparative Musicology: Ethnomusicology or Transcultural Musicology?*, Nota, Udine: 82-98

FINKE, Ronald A., Stephen M. SMITH, and Thomas B. WARD
1992 *Creative Cognition: Theory, Research, and Applications*, MIT Press, Cambridge

FLORY, Andrew
2010 'Marvin Gaye as Vocal Composer', in Mark Spicer and John Covach (eds.), *Sounding Out Pop: Analytical Essays in Popular Music*, The University of Michigan Press, Ann Arbor: 63-98

GELL, Alfred
1998 *Art and Agency: An Anthropological Theory of Art*, Clarendon Press, Oxford

GIBSON, David
1997 *The Art of Mixing. A Visual Guide to Recording, Engineering, and Production*, Mix Books, Vallejo

GIBSON, Ross
2010 'Carbon and Silicon' in Norie Neumark, Ross Gibson, and Theo van Leeuwen (eds.), *VOICE. Vocal Aesthetics in Digital Arts and Media*, MIT Press, Cambridge-London: 211-224

GRACYK, Theodor
1996 *Rhythm and Noise. An Aesthetics of Rock*, Duke University Press, Durham-London

GREENE, Paul D., Thomas PORCELLO (eds.)
2005 *Wired for Sounds: Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown

HENARE, Amiria, Martin HOLBRAAD, Sari WASTELL
2007 'Introduction', in Amiria Henare, Martin Holbraad and Sari Wastell (eds.), *Thinking through Things: Theorising Artefacts Ethnographically*, Routledge, London-New York: 1-31

HENNION, Antoine
1983 'The Production of Success. An Anti-Musicology of the Pop Song', *Popular Music*, III: 159-193
1989 'An Intermediary between Production and Consumption: The Producer of Popular Music', *Science, Technology & Human Values*, XIV, 4: 400-424

HENNION, Antoine, and Ignacio FARÍAS
2016 'For a Sociology of *maquettes*: An Interview with Antoine Hennion', in Ignacio Farías and Alex Wilkie (eds.), *Studio Studies: Operations., Topologies & Displacements*, Routledge, London-New York: interview 1. Kindle

HEPWORTH-SAWYER, Russ, and Jay HODGSON (eds.)
2017 *Mixing Music*, Routledge, London-Abingdon

HEYLIN, Clinton
1995 *Bob Dylan: The Recording Sessions 1960-1994*, St. Martin's Press, New York

HITCHINS, Ray
2013 'Rhythm, Sound and Movement: The Guitarist as Participant-Observer in Jamaica's Studio Culture', *Ethnomusicology Forum* XXII, 1: 27-48
2014 *Vibe Merchants: The Sound Creators of Jamaican Popular Music*, Ashgate, Aldershot

HUBER, David M., Robert E. RUNDSTEIN
2014 *Modern Recording Techniques*, 8th ed., Focal Press, Burlington-Abingdon

HUTTER, Michael, Ignacio FARÍAS
2017 'Sourcing Newness: Ways of Inducing Indeterminacy', *Journal of Cultural Economy* X, 5: 434-449

JARRETT, Michael
2012 'The Self-Effacing Producer: Absence Summons Presence', in Simon Frith and Simon Zagorski-Thomas, *The Art of Record Production: An Introductory Reader for a New Academic Field*, Ashgate, Farnham-Burlington: ch.9. Kindle

KATZ, Mark
2010 *Capturing Sound: How Technology Has Changed the Music*, University of California Press, Berkeley-London

KEALY, Edward R.
1990 [1979] 'From Craft to Art: The Case of Sound Mixers and Popular Music', in Simon Frith and Andrew Goodwin (eds.), *On Record: Rock, Pop and the Written Word*, Routledge, London-New York: 207-220

KROTZ Alex, and Jay HODGSON
2017 'Mixing for Markets', in Russ Hepworth-Sawyer and Jay Hodgson, *Mixing Music*, Routledge, London-Abingdon: 140-152

LAW, John
2004 *After Method. Mess in Social Sciences*, Routledge, London-New York

LEONARD, Marion
2007 *Gender in the Music Industry: Rock, Discourse and Girl Power*, Ashgate, Aldershot

LEWINSOHN, Mark
1988 *The Beatles Recording Sessions: The Official Abbey Road Studio Session Notes 1962-1970*, Harmony, New York

MARCUS, George E.
1995 'Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography, *Annual Review of Anthropology* XXIV: 95-117

McINTYRE, Phillip
2016 'Songwriting as a Creative System in Action', in Phillip McIntyre, Janet Fulton and Elizabeth Paton (eds.), *The Creative System in Action: Understanding Cultural Production and Practice*, Palgrave Macmillan, Basingstoke-New York: 47-59

MEINTJES, Louise
2003 *Sound of Africa! Making Music Zulu in a South African Studio*, Duke University Press, Durham-London

MICHAEL, Mike
2016 'Afterword – studio studies', in Ignacio Farías and Alex Wilkie (eds.), *Studio Studies: Operations., Topologies & Displacements*, Routledge, London-New York. Kindle

MILNER, Greg
2009 *Perfecting Sound Forever: The Story of Recorded Music*, Granta, London

MOL, Anne Marie
2002 *The Body Multiple. Ontology in Medical Practice*, Duke University Press, Durham-London

MOORE, Allan F.
2015 'Recorded British Folk Song', in Paul Théberge, Kyle Devine and Tom Everrett (eds.), *Living Stereo: Histories and Cultures of Multichannel Sound*, Bloomsbury, London-New York: 165-182

MORTON, David
2000 *Off the Record: The Technology and Culture of Sound Recording in America*, Rutgers University Press, New Brunswick-London

MOYLAN, William
2002 *The Art of Recording. Understanding and Crafting the Mix*, Focal Press, Amsterdam-Boston

NOVAK, David
2013 *Japanoise. Music at the Edge of Circulation*, Duke University Press, Durham-London

ORTNER, Sherry B.
1996 *Making Gender: The Politics and Erotics of Culture*, Beacon Press, Boston

SAWYER, Keith R.
2006 *Explaining Creativity: The Science of Human Innovation*, Oxford University Press, Oxford-New York

SCALES, Christopher A.
2012 *Recording Culture. Powwow Music and the Aboriginal Recording Industry on the Northern Plains*, Duke University Press, Durham-London

SCHLOSS, Joseph G.
2004 *Making Beats. The Art of Sample-Based Hip-Hop*, Wesleyan University Press, Middletown

SCHMIDT-HORNING, Susan
2013 *Chasing Sound: Technology, Culture and the Art of Studio Recording from Edison to the LP*, John Hopkins University Press, Baltimore

SENIOR, Mike
2011 *Mixing Secrets for the Small Studio*, Focal Press, Burlington-Oxford
2015 *Recording Secrets for the Small Studio*, Focal Press, Burlington-Abingdon

SHEA, Mike
2005 *Studio Recording Procedures: How To Record Any Instrument*, McGraw-Hill, New York-Chicago

TAYLOR, Timothy D.
2001 *Strange Sounds. Music, Technology, and Culture*, Routledge, New York-London

THÉBERGE, Paul
2004 'The Network Studio: Historical and Technological Paths to a New Ideal in Music Making', *Social Studies of Science* XXXIV, 5: 759-781

THOMPSON, Paul
2016 'Scalability of the Creative System in the Recording Studio', in Phillip McIntyre, Janet Fulton and Elizabeth Paton (eds.), *The Creative System in Action: Understanding Cultural Production and Practice*, Palgrave Macmillan, Basingstoke-New York: 74-86
2019 *Creativity in the Recording Studio: Alternate Takes*, Palgrave Macmillan, Cham

WADE, Kevin
2015 'The Many Worlds of Popular Music: Ethnomusicological Approaches', in Andy Bennett and Steve Waksman, *The Sage Handbook of Popular Music*, Sage, Los Angeles-London: 15-32

WALLACH, Jeremy
2003 'The Poetics of Electrosonic Presence: Recorded Music and the Materiality of Sound', *Journal of Popular Music Studies*, XV, 1: 34-64
2008 *Modern Noise, Fluid Genres: Popular Music in Indonesia, 1997-2001*, The University of Wisconsin Press, Madison

WOLFE, Paula
2012 'A Studio of One's Own: Music Production, Technology and Gender', *Journal on the Art of Record Production*, VII (http://www.arpjournal.com/asarpwp/a-studio-of-one%E2%80%99s-own-music-production-technology-and-gender/ last access December 28th, 2023)

ZAGORSKI-THOMAS, Simon
2010 'Real and Unreal Performances: The Interaction of Recording Technology and Rock Drum Kit Performance', in Anne Danielsen (ed.), *Musical Rhythm in the Age of Digital Reproduction*, Ashgate, Farnham-Burlington: 195-212
2014 *The Musicology of Record Production*, Cambridge University Press, Cambridge

ZAK, Albin J. III
2001 *The Poetics of Rock. Cutting Tracks, Making Records*, University of California Press, Berkeley-Los Angeles-London

The Entextualization of Performative Sociality: Ethnomusicological Approaches to Sonic Encoding and Decoding

Jeremy Wallach

What was the most historically significant musical instrument of the 20th century? I have asked 21st-century students this question numerous times, and it tends to perplex them. The computer? (*Wrong!*) The electric guitar? (Better, but still wrong). The keyboard synthesizer? (Nope). The correct answer, of course, is the multitrack recording studio. I suspect the reason contemporary university students have such trouble naming the multitrack studio as the most impactful musical instrument of the last century is because its seismic transformation of musical experience has become taken-for-granted. Moreover, studios themselves, as specialized, professionalized spaces for sonic production, are often viewed as obsolete these days.

Once only possible to create in rarefied conditions requiring substantial capital investment, high-quality recordings can now be produced in a bedroom. What, then, is the use of studying old-fashioned recording studios? While earlier generations of transcultural musicologists[1] conducted fieldwork in recording studio environments (myself included),[2] these specialized, sequestered facilities for the social production of musical artifacts are in danger of consignment to the ash-heap by a younger generation of scholars, and I find myself in the strange position of having to justify their serious ethnomusicological study to the current rising generation of ethnographic researchers.

But what exactly do recording studios do? What makes them important to contemporary musical life? Eliot Bates writes: «I contend that studios must be understood simultaneously as acoustic environments, as meeting places, as container technologies, as a system of constraints on vision, sound and mobility, and as typologies that facilitate particular interactions between humans and nonhuman objects while structuring and maintaining power relations» (2012, n.p.). I agree they are all of these things, but while Bates focuses most of his essay on the ways in which the studio as 'container' structures and constrains social practice, in what follows I offer a few remarks on studios as 'meeting places', of selves, sounds, and audiences.

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1 A type of researcher that includes those who identify as ethnomusicologists and popular music scholars. In the words of Giovanni Giuriati, transcultural musicologists can be said to conduct: «research on living contemporary musics that unfold and develop in cultural contexts increasingly interconnected and complex... [while] adopting comparative, transnational, transcultural perspectives...» (Giuriati 2017: 8).

2 Exemplary recording-studio ethnographies include Bates (2016), Meintjes (2003), Moehn (2012), Scales (2012), and the essays found in Greene and Porcello (2005). Rather than adopting a critical "culture industry" approach to these facilities as subordinated commodity "assembly lines," these studies tend to take an approach inspired by Steven Feld's phenomenological ethnoaesthetics (1988, 1994, 1996, 2012[1982]), investigating situated language use, sensory experience, and social practice (see Wallach 2019). It is worth noting that Feld himself voiced criticism of sound recording technologies (e.g., 1995) and has since moved on from this approach (2017).

The recording studio is a site of encounter and alchemic serendipity. Recording studios 'encode' (Hall 2012) performances, rendering them as 'texts', or at least as strange artifacts with textual properties, namely authority and unlimited repetition (Wallach 2003). Recordings, then, are hybrid things: 'entextualized' (Silverstein and Urban 1996) musical gestures that generally come to exist as a consequence of a social process. While the manufacturers of audio equipment tempt the consumer with promises of 'every sound you can imagine' (Théberge 1997), Matthew Rahaim reminds us, through his explication of Levinasian philosophy, that it is social encounters with other living subjects that truly contain infinite possibilities (2017), not technological wizardry.

I have written about creative social processes in the studio (Wallach 2005, 2008: Ch. 4). But the one thing more tedious than authors who cite themselves is authors who quote themselves, so instead I would like to discuss an article by Rowan Oliver, an excellent study of Jamaican popular music (2017). Drawing from interviews with legendary Jamaican session players, Oliver suggests that: «by empathising with the song, with the genre, and with one another, the musicians are able to spontaneously create a stylistically effective arrangement during the recording session» (Oliver 2017: 197). In turn, the 'vibe' generated by the original performers is detected, accentuated, and modified by the dub remix producer:

> Although the sound engineer needs to engage empathically with both the feeling of the song and the recorded groove of the instrumentalists...[the engineer] also has the potential to extract new, different feelings from the recording, and to communicate these by altering the existing groove factors so that the listener's perception of the performance is changed; sometimes this shift is subtle, but at others it can be more radical (Oliver 2017: 206).

Moreover, Oliver argues, the grooves empathically, collectively created by the instrumentalists and the sound engineers move the eventual listeners of the recording (who are generally perceived as dancing in response to it). Indeed, that's the point. Thus it is vital that workshops for producing music recordings be socially gregarious spaces because their products must likewise engage listeners in empathic musicking activities (such as dancing) if they are to succeed as pleasurable commodities.

Studios remain vital sites for likeminded musical subjects to collaborate and to 'hang out' – that is, to co-perform subjectivities informed by shared musical experiences that can be drawn upon as creative resources in emergent polyphonic social interaction (Clinton and Wallach 2016). At times the need for sociability and the technocratic disciplinary regime that tends to be in effect in a high-tech environment like the recording studio come into conflict. Unlike situations in South Africa (Meintjes 2003) and Brazil (Moehn 2012), sound engineers and producers in Indonesia were not members of more powerful cultural groups, nor were they highly formally trained. The result is the 'power relations' of the studio to which Bates refers in the passage above are distinct in the Indonesian case. I saw little effort to enforce technocratic discipline in Indonesian studios, and as a result, activities that were discouraged or prohibited in US studio environments, such as drinking, smoking, eating, inclusion of session non-participants, and loud fraternizing (including during recording takes), were commonplace.[3]

The Simulacrum of the Social Encounter

All multitrack recordings must at some point be mixed down to two stereo tracks, an art form whose subtleties remain unappreciated by most of the public. Like a great novelist, a skilled stereo mixer creates a quasi-social terrain on which the narrative/song unfolds (see Bakhtin 1981). This terrain is multi-voiced, containing a heteroglossic collectivity of sound sources

3 Viewed through the lens of postcolonial theory, this could be viewed as a salutary form of resistance to the neoliberal hegemony of technocratic hygiene. On the impact of postcolonial thought on ethnomusicology, see Wallach and Clinton (2019).

balanced and arranged to produce a self-contained 'society' (if you will) with an autonomous socio-spatial logic.[4] The listener(s) imagine themselves inside this simulated social space, and in doing so, like the dancers in Oliver's study, become *participants* in the music. They become links in what Oliver terms the: «causal chain of empathy» (Oliver 2017: 199).

The listener's desire to fully participate in the musical event brings us to live albums, which are supposedly *not* produced in studios. However, the vast majority of commercially-released 'live' albums aren't actually live (Horning 2018: 216). Electric guitarist Alex Skolnick's autobiography contains a rare behind-the-scenes admission of this industry open secret:

> It would be a rock producer, one that had worked with Aerosmith and other hard rock giants of the 1970s, who would one day explain this to me, shattering the illusion of all my favorite live albums. "Alex, you know that in rock 'n' roll, there's no such thing as a 'live' record right?" he'd say. I'd ask him what he meant. "Usually what they do is record everything on multitrack, but they only keep the drums. In fact, it may claim to be one concert, but often, it's the best tracks compiled over several concerts. Then, the guitars are fixed or redone entirely. And the vocals are almost always redone unless you have the rare singer that can pull it off live, but that's unheard of in hard rock. The crowd noise is usually real, but it's sometimes taken from other sources. When all is said and done, it sounds like a perfectly recorded concert, but it's more like a studio album than a live one."
>
> "Isn't that lying?" I'd ask.
>
> "Well, Alex, it's like this," he'd say, "In rock 'n' roll, there is 'the truth' and there is 'the legend.' If the legend is more exciting than the truth, go with the legend" (2012: 19).

It is telling that Skolnick was already several years into a professional music career, as a guitarist with the Californian heavy metal band Testament, when the interaction described above took place.

If the music on the record is not really indicative of a band's live sound, then why purchase it? One answer: the "crowd noise" (real or otherwise) on a live recording is akin to a sitcom laugh-track—it cues the listener and instructs in proper audience comportment at rock concerts. More important than this instruction, however, especially for those already familiar with the rituals of concert attendance, is the creation of *a quasi-social space of encounter* in which the listener is invited to imagine immersion in an immense, engaged collective simultaneously imbibing music. It is unsurprising, then, that music genres better known for concert audience enthusiasm (thus, audible crowd noise) than danceability (that is, immediate embodied responses to the groove) have the most live albums.

A more recent manifestation of the desire for (vicarious) social/musical experience is so-called "reaction videos" on YouTube. What I find striking is the number of user comments that indicate prior familiarity with the music being reacted to—these viewers evidently watch for the experience of re-experiencing sounds, by observing another person encountering them in real-time.[5] Thus the impulse is similar to the pleasures of live albums—one is invited to re-hear familiar music in new ways with virtually present others with whom one can imagine quasi-social relationships. Moreover, the reception of sound as social activity is not only pivotal to the experience of the popular music listener; over twenty-five years of ethnographic research in recording studios has revealed that the collective, ongoing assessment of sonic material by performers, engineers, and producers is the essential cultural function of these spaces.

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4 To posit a relationship (iconic, indexical) between virtual stereo space and actual social space is to indulge in homological reasoning. Such a move gets a bad rap these days, but in this case I believe it is justified.

5 Interestingly, in the last five years an increasing number of reaction videos have been made to non-Anglophone popular music, from Serbian hip hop to Indonesian death metal. These metacultural (Urban 2001) texts have drawn unprecedented international attention to these artists, and, if the responses in the YouTube comments are any indication, are a source of national pride for fans in the artists' home countries.

Conclusion

Like the printed book, paper magazine, and vinyl record, the recording studio is an old format that has not outlived its usefulness. As sites of often-serendipitous encounters between self and sounds, miscellaneous sound sources, and, most of all, self and the "infinite totality" of others' consciousnesses,[6] studios remain valuable workshops for producing compelling popular music. The "legend" lives on...

Acknowledgments

The author wishes to thank Esther Clinton[7] as well as the organizers and participants of the Fondazione Giorgio Cini Intercultural Institute of Comparative Music Studies 25th Annual International Seminar, especially Serena Facci and Giovanni Giuriati.

References

BAKHTIN, Mikhail M.
1981 *The Dialogic Imagination*. Michael Holquist (ed.), Caryl Emerson, Michael Holquist (trans.), University of Texas Press, Austin

BATES, Eliot
2012 'What Studios Do', *Journal on the Art of Record Production 7.* Available online: https://www.arpjournal.com/asarpwp/what-studios-do/, last access December 28th, 2023
2016 *Digital Tradition: Arrangement and Labor in Istanbul's Recording Studio Culture,* New York: Oxford University Press

CLINTON, Esther and Jeremy WALLACH
2016 'Talking Metal: A Social Phenomenology of Hanging Out in Metal Culture', in Nelson Varas-Díaz and Niall W. R. Scott (eds.), *Heavy Metal Music and the Communal Experience,* Lexington Books, Lanham, MD: 37-55

FELD, Steven
1988 'Aesthetics as iconicity of style', *Yearbook for Traditional Music* XX: 74-113
1994 'From Ethnomusicology to Echo-muse-ecology: Re-reading R. Murray Schafer in the Papua New Guinea Rainforest', in *Soundscape Newsletter* VIII: 9–13
1995 'From Schizophonia to Schismogenesis', in George Marcus and Fred Myers (eds.), *The Traffic in Culture*, University of California Press, Berkeley – Los Angeles - London: 96 -126
1996 'Waterfalls of Song: An Acoustemology of Place Resounding in Bosavi, Papua New Guinea', in Steven Feld and Keith Basso (eds.), *Senses of Place*, School of American Research Press, Santa Fe: 91-135
2012 *Sound and Sentiment: Birds, Weeping, Poetics and Song in Kaluli Expression*, Duke University Press, Durham, NC [1982]

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6 This essay was completed in imposed social isolation during a global pandemic. It might therefore be understandable for one to overvalue and even idealize face-to-face contact given the condition of its scarcity. This is not my intention. Face-to-face encounters are actually more fraught than comfortable, precisely because their trajectories elude a single agent's control. But it is through such risky, fraught, frictional interactions that great art is made, and studios are a primary site where they occur.

7 After Jeremy Wallach delivered his chapter to us, during the editorial process for this volume Esther Clinton sadly passed away. On this occasion we would like to remember her with gratitude. She was a gentle presence during the Seminar in Venice, providing precious contributions to our debate [the editors].

2017 'On Post-Ethnomusicology Alternatives: Acoustemology', in Franscesco Giannattasio and Giovanni Giuriati (eds.), *Perspectives on a 21st Century Comparative Musicology: Ethnomusicology or Transcultural Musicology?*, *Nota*, Udine: 82 - 98

GIURIATI, Giovanni
2017 'Foreword', in Francesco Giannattasio and Giovanni Giuriati (eds.), *Perspectives on a 21st Century Comparative Musicology: Ethnomusicology or Transcultural Musicology?* Nota, Udine: 6 - 8

GREENE, Paul D. and Thomas PORCELLO, (eds.)
2005 *Wired for Sound: Engineering and Technologies in Sonic Cultures,* Wesleyan University Press, Middletown, CT

HALL, Stuart
2012 'Encoding/Decoding', in Meeknakshi Gigi Durham and Douglas Kellner (eds.),
[1980] *Media and Cultural Studies: Keyworks*, 3rd Edition, Blackwell, Malden, MA: 137 - 144

HORNING, Susan Schmidt
2013 *Chasing Sound: Technology, Culture and the Art of Studio Recording from Edison to the LP,* Johns Hopkins Press, Baltimore

MEINTJES, Louise
2003 *Sound of Africa! Making Music Zulu In A South African Studio*, Duke University Press, Durham, NC

MOEHN, Frederick
2012 *Contemporary Carioca: Technologies of Mixing in a Brazilian Music Scene*, Duke University Press, Durham, NC

OLIVER, Rowan
2017 'In Dub Conference: Empathy, Groove, and Technology in Jamaican Popular Music', in Elaine King and Caroline Waddington (eds.), *Music and Empathy*, Routledge, New York: 194 - 208

RAHAIM, Matthew
2017 'Otherwise Than Participation: Unity and Alterity in Musical Encounters', in Elaine King and Caroline Waddington (eds.), *Music and Empathy*, Routledge, New York: 175 - 193

SCALES, Christopher
2012 *Recording Culture: Powwow Music and the Aboriginal Recording Industry on the Northern Plains*, Duke University Press, Durham, NC

SILVERSTEIN, Michael and Greg URBAN, (eds.)
1996 *Natural Histories of Discourse.* University of Chicago Press, Chicago, IL

SKOLNICK, Alex
2013 *Geek to Guitar Hero,* Louder Education Press, Brooklyn, NY

THÉBERGE, Paul
1997 *Any Sound You Can Imagine: Making Music/Consuming Technology,* Wesleyan University Press, Middletown, CT

URBAN, Greg
2001 *Metaculture: How Culture Moves through the World,* University of Minnesota Press, Minneapolis

WALLACH, Jeremy

2003 'The Poetics of Electrosonic Presence: Recorded Music and the Materiality of Sound', *Journal of Popular Music Studies* 15(1): 34 - 64

2005 'Engineering Techno-Hybrid Grooves in Two Indonesian Sound Studios', in Paul D. Greene and Thomas Porcello (eds.), *Wired for Sound: Engineering and Technologies in Sonic Cultures,* Wesleyan University Press, Middletown, CT: 138 - 155

2008 *Modern Noise, Fluid Genres: Popular Music in Indonesia, 1997-2001,* New Perspectives in Southeast Asian Studies, Volume 3, University of Wisconsin Press, Madison, WI

2019 'Rainforest to Raves: Ethnomusicological Forays into Popular Music', *Journal of World Popular Music* 6 (2): 223 - 227

WALLACH, Jeremy and Esther CLINTON

2019 'Theories of the Post-Colonial and Globalization: Ethnomusicologists Grapple with Power, History, Media, and Mobility', in Harris M. Berger and Ruth Stone (eds.), *Theory for Ethnomusicology: Histories, Conversations, Insights; Second Edition*, Prentice Hall, Upper Saddle River, NJ: 114 -139

Ethnographic Approaches to Discographic Production in Sardinia, Italy

Marco Lutzu

The mediatization of music performance has received increasing attention over the last decades.[1] Studies conducted in different musical fields have shown how recording music is not just a way to fix and store sounds, but rather a process that shapes the music itself, affecting how music is conceived, produced, and consumed (Chanan 1995; Taylor 2001; Cook et al. 2009; Borio 2015). The technological mediatization of live music has been mainly investigated in popular music (Kealy 1979; Auslander 2008; Zagorski-Thomas 2014) and, more recently, in Western Art Music (Cook 2001; 2013; Rink 2002; 2005). Less attention has been devoted to traditional and world music,[2] partly because the recording of orally-transmitted traditional music has too often been intended as the transparent reflection of the performance, especially in the cases of field recordings aimed to capture a ritual or a public event. Recordings collected by ethnomusicologists, anthropologists and folklorists are usually referred to as 'sound documents', a term that seems to suggest a greater adherence to the live musical event, when compared, for example, with multi-track recordings that are the result of a long and complex post-production process used primarily in popular music.

The aim of this chapter is to discuss how, even within the domain of traditional music, the processes involved in the mediatization of a musical performance inevitably bring a certain degree of 'opacity' that depends both on the constraints of recording technologies and on the 'performative project' that shapes every recorded artifact (Bratus 2016). Fundamental for the analysis of the four case studies presented here were my eight years working as manager and sound engineer assistant in a Sardinian recording studio, together with my archival research on historical recordings (Casu and Lutzu 2012; Lutzu 2015). Drawing on my training as an ethnographer, I argue that an ethnographic approach to the recording studio can make these processes of mediatization more transparent, offering new methodological and theoretical perspectives to address the study of the technological mediatization of musical performance.

1 I use the term 'mediatization' instead of 'mediation' to place greater emphasis on the effects of media on social and cultural life. For an overview of how these two concepts are used in media studies see Couldry (2008).

2 The first research in this field focused on the 'World Music' industry and on non-Western popular music (Manuel 1991; 1993; Feld 1994; 1996).

Recordings of Sardinian folk music

Despite the overall slow development of the recording industry in Italy (Leydi 1996), the activity surrounding the recording of Sardinian folk music has been remarkably robust. Along with other Italian regional music, such as genres performed in the Neapolitan area and Sicily, Sardinian music has been widely documented on wax cylinders, 78rpms, records, reels and digital supports since the first decades of the 20th century.

The oldest recordings of Sardinian folk music are those made in 1918 by soldiers detained in German prison camps during the First World War (Macchiarella e Tamburini 2018). Beginning in 1922, the musician and musicologist Gavino Gabriel promoted the use of the gramophone both as a research tool and for educational purposes (Gabriel 1934; Facci 2018; Lutzu 2018). To him we owe the first recordings of *cantu a chiterra* (songs accompanied by guitar) and of different genres of multipart male singing.

Between 1928-1959, 390 records were released for commercial purposes. During this time Italian branches of some of the most important international record labels, such as *Gramophone Company*, *Columbia*, and *Pathé*, began to include recordings of Sardinian musicians in their catalogues (Gualerzi 1982). By the 1960s, a large number of recordings had also been published by local record labels, first on 45 and 33 rpm records, then on cassettes and CDs. Today, the largest archive of Sardinian music has over 6000 recordings.[3]

Despite such a large corpus, until today no specific research on the mediatization of Sardinian folk music has ever been carried out. The oldest commercial records have been catalogued (Gualerzi 1982; Leydi 1997), and, more recently, specific research has been conducted on recordings from World War One (Macchiarella and Tamburini 2018), on some musical genres such as the *cantu a chiterra* (Angeli 2006), and on recording expeditions carried out in single villages after World War Two (Lutzu 2015; Pilosu 2018).[4] All these studies, however, have mainly focused on the music contained in the recordings, the musical protagonists, and the historical and social context in which the recordings were made. Only in a few cases has specific attention been paid to relations between musicians in the space of the studio, and to the engineers and audio equipment used to create these recordings. Indeed, even in the most recent recordings, no analyses exist which focus on the central importance of sound production in the process of mediatization.

Recording studio and ethnography: Methodological Approaches

Throughout this chapter, I define 'recording studio' in a broader, ethnographic sense that goes beyond the scope of the formal recording studio. We usually refer to the recording studio as a place specifically dedicated to the sound recording, mixing, and audio production of instrumental or vocal musical performances. A studio typically consists of two distinct areas: a live room designed to achieve optimal acoustic conditions and equipped with microphones, where musicians perform; and a control room, where sound engineers manage the recording and mixing process by means of specific equipment.

Most Sardinian traditional music was not recorded in a 'real' studio. This is for various reasons, both historical and economic. A large number of recordings feature live performances collected by ethnomusicologists during their fieldwork or are the result of low budget or DIY production where musicians or engineers could not afford the cost of a professional studio. Churches, parish halls, private houses, cellars, squares and streets are among the most common places temporarily turned into a live room. Only in rare cases was not recording in

3 This database can be consulted at www.archiviomariocervo.it, last access December 27, 2023.

4 The expeditions were promoted by the *Centro Nazionale di Studi di Musica Popolare* (CNSMP), which is the most important archive and national research institute for Italian folk music. Its foundation, dating back to 1948, is symbolically considered as the birth of Italian ethnomusicology.

a studio a voluntary aesthetic choice.[5] For this reason, in the following pages I will use the term 'recording studio' to refer to any place where a recording subsequently published on a record was made.

Moreover, the way I use the term 'ethnography' must be clarified. In an article about ethnography of sounds, Serena Facci highlights how ethnomusicology has developed its own research methodology over time:

> The field of ethno-anthropological investigation dedicated to sounds has generated an autonomous discipline, with its own scientific and academic status in many countries of the world. 'Ethnomusicology' is the most frequent term used to define it, but other definitions have preceded, followed and/or accompanied it [...]. These labels are a symptom of the evolution of methods and research targets that also intimately involved the ways in which field research has been carried out. (Facci 2010: 223, my translation).[6]

The plural form 'ethnographic approaches' in the title of this chapter not only underlines the growing methodological autonomy that ethnomusicology has achieved with respect to cultural anthropology, but also points out how 'ethnography' actually refers to a cluster and not just a single approach in investigatory research methods. The *Handbook of Methods in Cultural Anthropology* offers a general overview of the variety of techniques used for collecting data and acquiring information in the social sciences. They range from participant observation to behavioural observation, from person-centred and structured interviewing to discourse-centred methods, from visual anthropology to ethnography of online cultures and social survey methods (Bernard and Gravlee 2015).

Similarly, we see very little methodological homogeneity in ethnographic approaches as they are applied to the recording studio. They may vary according to the researcher's goal, his/her background, and whether he/she had access to the studio at the time a given recording was made. As Petr Szczepanik states in an interview with Georgina Born on the use of ethnography in her research on media production:

> She explained ethnography as a multi-layered methodology that oscillates between theoretical reflection and participant observation, between synchronic and diachronic perspectives, and between micro (production cultures and practices), meso (organizations) and macro (industries and policies) scales. (Szczepanik 2013: 100).

Some ethnographies on recording studios have also adopted collaborative and participative approaches, as well as using discourse-centred methods and behavioural observation (Porcello 1998; Meintjes 2003; Schloss 2004; Feld et al. 2004; Greene and Porcello 2005). However, the majority of these studies, mostly in the domain of mainstream popular music, are mainly (or exclusively) based on interviews completed after the recording itself.

My research on the mediatization of musical performance in Sardinian traditional music shares a common methodological framework that I would like to summarise before discussing the case studies. My aim is not to propose a general theory, but only to clarify the methodological approach I used to carry out my research.

Two main typologies of ethnography of recording studios can be distinguished. The *ethnography inside the studio* is when the ethnographer conducts his/her research being physically present inside the studio. In this type of ethnographic work, one or more phases of the recording process (pre-production, production or post-production) and one or more phases of the research (at least the data collection) occur at the same time. The researcher and the

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5 One example of such a choice was the CD *S'amore 'e mama* by Tenores di Bitti, produced and recorded by Michael Brook, and released in 1995 with Real Word Records, the label launched by Peter Gabriel in 1989. In the sleeve notes we read: «Recorded in Bitti, Sardinia, at different sites – churches, streets, canteens, bars, countryside, 'nuraghe' (an old circular stone building), and included the ambient noises of the locations – March 1995». These locations were not randomly chosen, since they are the main place where the multipart singing genre known as *cantu a tenore* is traditionally performed. It is clear that they were selected both for their acoustic properties and for the symbolic value.

6 Original version: «Il campo di indagine etnoantropologico dedicato ai suoni ha generato una disciplina autonoma, con un proprio statuto scientifico e accademico in molti paesi del mondo. Il termine più frequente per definirla è 'etnomusicologia', ma altre definizioni lo hanno preceduto, seguito e/o affiancato [...]. Queste etichette sono il sintomo di un'evoluzione di metodi e obiettivi che ha coinvolto intimamente anche i modi con cui sono state svolte le ricerche sul campo».

people involved with different roles in the recording (musicians, producers, sound engineers etc.) share the same time and place, so that the former has the opportunity to directly observe the behaviours of the latter. Discourse-centred, dialogical and collaborative approaches can be developed.

The second typology is the *ethnography about the studio*. This occurs when the researcher is not physically present during the recording process, or when he/she is not in the studio for specific research purposes. The focus of the research remains the same: the relations, behaviours and procedures that shape the workflow of the recording process, and how they affect the music outcome. But in this case the ethnographic work consists in reconstructing and analysing the experience the people who took part in the recording lived inside the studio. The ethnography about the studio is always a retrospective ethnography.

Three main methodological approaches can be used in the latter case. The first one is the interview. Person-centred interviews or structured interviews can be conducted, or focus groups can be convened, with the people who took part in the recording process so as to collect information about the aspects mentioned above. The second one is the autoethnographic approach, a term employed in reference to «autobiographies that self-consciously explore the interplay of the introspective, personally engaged self with cultural descriptions mediated through language, history, and ethnographic explanation» (Ellis and Bochner 2000: 742).

Now recognised as one of the techniques for conducting research in the social sciences (Chang 2008; Jones, Adams, and Ellis 2016), autoethnography is considered an effective way to collect personal memory, self-observational and self-reflective data. As Leonardo Piasere pointed out:

> There are cases, however, in which ethnographic reports are made without any proper ethnographic research, in the sense that the experience of life has 'become' ethnographic only after the author has been trained as an anthropologist. Here we are on the edge of ethnography, in that frontier place (in the sense of a nuanced field) where one can gradually slip from an experiential adventure to an adventure of ethnographic experience. In these cases, the experience was not, at the time when it occurred, an experiment of intentional experience, and a written account becomes a retrospective ethnography, an experiment of thought applied to one's memory of the events experienced (Piasere 2002: 49, my translation).[7]

Finally, information concerning the recording process and the studio experience can be collected from various other indirect sources such as written reports, notes and sketches, as well as by listening to the session tapes or the takes not included on the records, and by analysing the audio files or the music itself.

In the next pages I will present four different case studies all related to Sardinian music. The first three cases, which focus on historical recordings, are examples of ethnography about the studio, while the last is a case of ethnography in the recording studio.

Efisio Melis and the oldest recording of launeddas

Launeddas is the name of a triple clarinet that is widespread in southern Sardinia. It consists of one drone and two chanters of different lengths made of cane. Launeddas are not a single instrument, but more than ten different types of instruments (or *cuntzertus*) exist, each of which is identified by a specific name such as *mediana*, *fioràssiu*, *puntu 'e òrganu*, *ispinellu* and more. The two chanters of every *cuntzertu* have a different melodic ambitus, set in all the instruments by a fragment of a major scale with the drone tone as finalis. Launeddas are

7 Original version: «Vi sono casi, però, in cui i resoconti etnografici avvengono senza una ricerca etnografica vera e propria, nel senso che l'esperienza di vita è 'diventata' etnografica solo dopo che l'autore ha avuto una formazione da antropologo. Siamo qui ai confini dell'etnografia, in quel luogo di frontiera, nel senso di àmbito sfumato, in cui si può scivolare gradatamente da un'avventura esperienziale a un'avventura di esperienza etnografica. In questi casi, l'esperienza non era, al momento in cui si verificava, un esperimento di esperienza intenzionale e un resoconto scritto diventa un'etnografia retrospettiva, un esperimento di pensiero applicato alla propria memoria degli avvenimenti vissuti».

played with circular breathing, a technique that allows the musicians to produce uninterrupted sound for several tens of minutes. Since the 18th century launeddas players have been semi-professional male musicians, hired to accompany religious processions, mostly during patron saint festivals, and traditional dances.

Dance accompaniment is the most complex and fascinating part of the launeddas repertoire. Respecting a set of orally transmitted rules, the musicians combine tripartite musical phrases called *nodas*, each of which can be proposed in a basic form or one that is freely varied at the moment of performance (Bentzon 1969; Lutzu 2012). Depending on the context, the launeddas player chooses the most appropriate *cuntzertu* and how to set the flow of the *nodas* in order to perform a uniquely personal dance accompaniment.

The oldest recordings of launeddas we have were made by Efisio Melis in 1930. He is still considered one of the greatest launeddas virtuosos and, in fact, the Danish scholar Andreas Bentzon described him as:

> the most prominent figure among the launeddas players of this century, and now is already legendary for his jealous and violent temper and for his almost incredible musical and technical excellence. [...] he must unfold his gifts within the narrow limits of launeddas music, which he has also carried forward to the utmost limit of his possibilities. (Bentzon 1969: 46)

In the 1930s, Melis went to Milan to record two studio sessions: the first from 17 to 21 January 1930, and the second on 22 April 1937 (Figure 1). The records were released by 'La Voce del Padrone', the Italian division of the British label 'His Master's Voice', in a series of eight 78rpms.[8] Melis's recording, the only one made during the first half of the 20th century, is an inspiring model (and in many cases a sort of cult object) for most contemporary launeddas

Figure 1. January 1930, Efisio Melis with the singer Gavino Delunas during the recording session in Milan. Source: Paolo Milano Archive (courtesy of Andrea Pisu).

8 The 1930 Melis recordings were remastered on the CD *Efisio Melis* (ed. by Marco Lutzu), series 'A Launeddas. I maestri delle launeddas', vol. 1, Frorias, Decimomannu 2010.

A first analysis of the dance accompaniments recorded by Efisio Melis in 1930 was provided by Pietro Sassu, who states:

> Generally speaking, the length of the pieces recorded here fall far short of what would be usual in live concerts, when the development of a piece would last fifteen to twenty minutes on average. The old 78's could only hold about three (25 cm) or five (30 cm) a side. However, Efisio Melis, with consummate skill, has managed to adapt to the short recording time by playing not just fragments of longer pieces, but perfect compositions, designed to fit the present time (Sassu 1994: 23).

This adaptation process highlighted by Sassu is a key issue for the analysis of the mediatization of music performance, a phenomenon that can be better understood by the distinction between a performative concept and a performative project as proposed by Alessandro Bratus (2016). Bratus borrows the notion of 'concept' from the design of products, areas in which this term does not only imply the creation of a prototype, but also defines its horizon of references, its possible use, and the contact with even remotely connected ideas and objects. The *performative concept* is internal to the text and consists of the invariant elements that can identify it, virtually containing the multiplicity of its renditions during the performance.[9] The *performative project* sets out the different renditions. It does not usually have 'a single owner' but is rather the result of a conscious or unconscious process of negotiation that involves musicians, technicians, the audience and so on. In a recorded artefact, the performative project takes into account the fact that that particular performance will be transmitted in space and time by means of a recorded support (Bratus 2016: 111–12).

As noted by Sassu, although it was Melis's first time in a recording studio, he was able to adapt his performance to meet the technical limitations of the recording technologies of that period, particularly in terms of length. In front of the microphone, Melis reshapes the dance accompaniment in order to present, in the 3 mins available on a 78rpm disc, a sort of compendium of the most significant *nodas* for every *cuntzertu*.

The lack of time to properly develop a launeddas dance accompaniment was the main limitation on the earliest 78rpm disc records. In order to remedy this problem, when Efisio Melis came to Milan in 1937 to record a new session, he changed his performative project adopting a different strategy. On this second occasion Melis played for 3 minutes, then stopped in order to allow the technician to set the matrix for the B side of the disc and started again exactly from where the performance had been interrupted.

As shown in Figure 2, we are able to see this conscious recording choice also in the catalogue of 'La Voce del Padrone' (His Master's Voice): in the 1930 recording, Melis plays a different dance for the A and B sides. By contrast, in the 1937 recordings, a single, longer dance is divided in two parts, side A and side B.

9 Similar ideas can be found in the notions of *deep structure* proposed by Blacking (1971), the concept of *relevance* proposed by Arom (1991), and these of *script* (Cook 2001) and *song* (Moore 2012).

Figure 2. Records by Efisio Melis in 1938 'La Voce del Padrone' catalogue. The discs GW 216, 217 and 218, recorded in 1930, have a different dance accompaniment for each side; in the discs from GW 1410 to 1414, recorded in 1937, the same dance is divided between two sides.

The recording made by Efisio Melis in 1930 with the *cuntzertu* called *fioràssiu* can be compared with the one he made in 1959, playing the same instrument, recorded by the Danish ethnomusicologist Andreas Bentzon.[10]

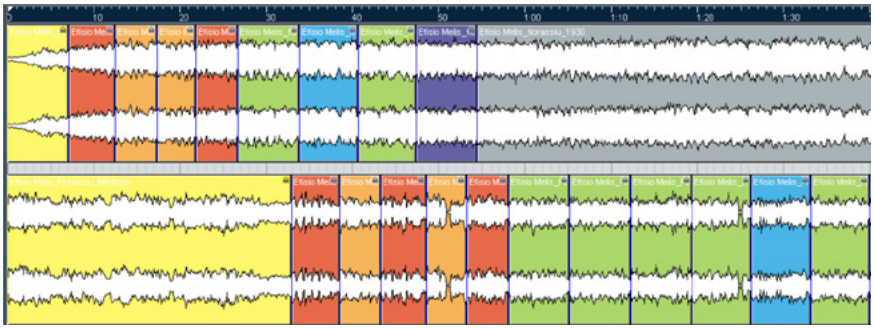

Figure 3. The first part of the *fioràssiu* dance played by Efisio Melis in 1930 (above) is compared with the same dance recorded by Betzon in 1959 (below). According to a different performative project, in the second recording Melis played more variations for every musical phrase (*noda*).

As shown in Figure 3 and in the Video Example 1, without the length constraints imposed by the 78rpm, Efisio Melis, adapted his performance, playing more elaborate variations for each *noda*.

10 The 1959 recording is contained on the first of the three CDs included in the Italian edition of Bentzon 1969 (Bentzon 2010, CD1, track 17).

Link » Video Example 1

Comparing Efisio Melis *fiorassiu*

Gavino Gabriel and *I cinque aggesi*

Gavino Gabriel (1881-1980) was a Sardinian musician, musicologist, ethnographer, educator, writer and film director (Pasticci 2018). In the early 20th century, this polyhedric figure was also «one of the most tenacious supporters of the sound recording of folk songs, intended as a methodological rather than purely technical problem» (Carpitella 1973: 46, my translation). As he stated in 1934 at the Third National Conference on Art and Folklore:

> The study of folk music is unrealisable without the phonograph, which records an essential element, vocal timbre. This study requires special attention dedicated to the mechanical means of recording, which have to translate and not betray the scholar's intentions (Gabriel 1936, 349 my translation).[11]

Since the early 1920s, Gavino Gabriel's dream had been to create an Italian national phonographic institute (Gabriel 1934). It is mainly thanks to his efforts that the 'Discoteca di Stato' was finally established in 1928, and Gabriel became its first director from 1932 to 1934.[12]

We owe the first attempts to record Sardinian male multipart singing to Gavino Gabriel. According to Roberto Leydi, in 1929 he promoted the recording of a *cantu a tenore* quartet from the village of Dorgali published on a series of 78rpms released by the British label 'Edison Bell'.[13] Unfortunately, the quality of these early recordings is so poor that Leydi described them as «practically unlistenable» (Leydi in Gualerzi 1982: 171).

Figure 4. Gavino Gabriel with *I cinque aggesi* in 1928. Source: Gavino Gabriel Archive, Tempio Pausania (thanks to Giuseppe Sotgiu).

11 Original version: «Lo studio, poi, della musica del popolo, inattuabile senza la fonografia che registra l'elemento essenziale altrimenti intrascrivibile qual è il timbro vocale: tale studio richiede una particolare attenzione dedicata al mezzo meccanico perché tanto come perfezione di congegno, quanto come sicurezza di maneggio, traduca e non tradisca le intenzioni dello studioso».

12 The *Discoteca di Stato* was officially established with the Royal Decree n. 2223 of 10 August 1928; in 2007 the name was changed to *Istituto Centrale per i Beni Sonori ed Audiovisivi* (Nation Institute of Sound and Audiovisual).

13 The series of five discs was titled *Cori sardi di Barbagia*. In 2007 some of the records were restored and published in the CD *Su tenore durgalesu de su 1929*.

Gabriel tried again in 1933 when he was Director of the 'Discoteca di Stato'. This time the group recorded was a vocal male quintet called *I cinque aggesi*, namely 'the five from Aggius' (the name of their village), who perform a genre of orally transmitted multipart singing called *tàsgia*.[14] Gabriel and the singers from Aggius collaborated closely and over an extended period of time (Figure 4). Starting in the 1920s, the musicologist organised several of their concerts in various Italian cities (Milleddu 2018); the choir also took part in the opera *La Jura* he composed.[15] As Gabriel pointed out, the recording was prepared with great care being paid to every detail:

> Well, despite the assistance of a first-rate technician (unfortunately not Italian, because this profession is unknown in Italy) we had to struggle for two days to adequately 'move' in a proper way the five singers in front of the microphone so that their voices would retain all their harmonics and their particular timbres also on the recording, without mutual interference and without haloes veiling their position, flattening the stereophonic image. Despite this, the results – although considering how difficult it was to calibrate, within a range common to the five very different voices, the vibrations of the microphone with those of the sapphire pick-up – the results are not acoustically perfect, even though they are very reliable as folk music documents for any aesthetic or scientific analysis (Gabriel 1936: 347–48, my translation).[16]

The recordings of *I cinque aggesi* produced by Gabriel were published in 1933 in a box set of four 78rpms titled *Canti di Sardegna* and released by the Italian label 'Fono Roma' (Figure 5).

Figure 5. Label of one of the discs by *I cinque aggesi*.

14 For more information about the *a tàsgia* singing tradition from Aggius, see Lutzu 2015.

15 The Opera *La Jura*, music and libretto by Gavino Gabriel, was first performed on 21 April 1928 at the Teatro Politeama Margherita in Cagliari, Italy (see Pasticci 2018).

16 Original version: «Pur giovandoci dell'assistenza tecnica di un incisore di prim'ordine (purtroppo non italiano, ché in Italia si ignora questa professione) abbiamo dovuto faticare per due giorni a «spostare» adeguatamente dinanzi al microfono i cinque cantori perché le voci conservassero anche nella riproduzione tutti i loro armonici e i loro timbri particolari, senza interferenze reciproche e senza aloni che ne velassero la posizione, appiattendo i rilievi stereofonici: e con tutto ciò i resultati – pur mirabili nei riguardi della difficoltà grandissima di calibrare entro una gamma comune alle cinque diversissime voci, le vibrazioni del microfono con quelle del vomerino (come vorremmo chiamare il pick-up di zaffiro) – con tutto ciò i resultati non sono acusticamente perfetti, anche se attendibilissimi come documenti della musica del popolo, per qualsivoglia esame estetico o scientifico».

Compared to other recordings of the same period, the sound quality is very good. This is because this recording is the result of a precise performance project negotiated at least between the engineer, the musicians and Gabriel as producer.[17] The English technician had to set the recording devices to capture a music he had probably never heard before, putting his experience at the disposal of Gabriel's requests. The singers, who had never been in a studio before, not only had to adapt their performance in terms of length (also in this genre a performance usually lasts more than three minutes) but also had to change their mutual positions (still today in the *tàsgia* the singers sing in a tight circle). And finally, Gavino Gabriel had to direct both the technician and the musicians to get the sound he considered as the most appropriate.

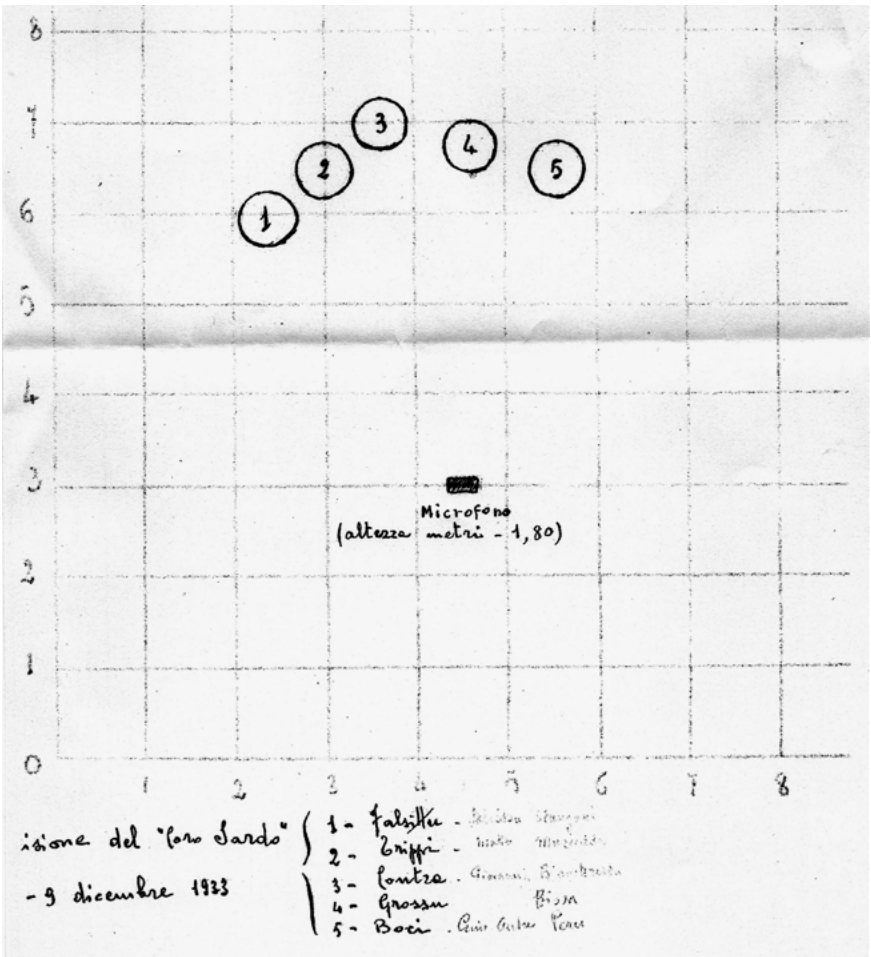

Figure 6. The sketch in which Gavino Gabriel drew the placement of the singers in the room for the recording of the discs *I cinque aggesi*, made on 9 December 1933. Source: Gavino Gabriel Archive, Tempio Pausania (thanks to Giuseppe Sotgiu).

If we consider the quality of the voices on the one hand and both the frequency response and the dynamic range of the stereophonic microphone on the other, Gabriel asked the singers to change from their usual positions. A sketch in which Gabriel noted down the positioning of the singers with respect to the microphone is kept in the 'Gabriel Archive' (Figure 6).[18] On graph paper he drew the microphone in the centre, also noting its height from the floor (1.80 metres), and the mutual position of the singers, each of whom performs a different part. The

17 I proposed an analysis of this recording in a recent article on the technological mediation of the voice in Sardinian multipart singing (see Lutzu 2023).

18 In 2005, I completed three months in the Gavino Gabriel Archive in the city of Tempio Pausania, thanks to a research fellowship with the Università di Cassino e del Lazio Meridionale, advised by Susanna Pasticci.

legend at the bottom of the sheet shows that the soloist [*boci* (5)] is located on the right, and the four accompaniment voices clockwise from the highest to the lowest one [*falsittu* (1), *trippi* (2), *contra* (3), *grossu* (4)].

Link » Audio Example 1

Canti di Sardegna, *tasgia* by *I cinque aggesi.*

The Fonit Cetra album by *Gli Aggius*

Two *a tàsgia* choirs were active in Aggius in the 1960s, one led by Matteo Peru and the other by Salvatore Stangoni, known as *Il Galletto di Gallura* (The Little Rooster from Gallura).[19] Stangoni's choir was politically deployed: in the village it was called 'The Choir of the Reds', and Stangoni's house was the local Communist Party headquarters (Figure 7). Due to its political militancy, from the mid-1960s onwards, the group was also involved in the national Folk Music Revival scene, whose diffusion in Italy was strongly fuelled by the political ideologies of the Left. With the name *Gli Aggius*, in 1966, Stangoni's quartet published an LP and a 45 rpm with 'I Dischi del Sole', a label born in the bosom of the Social Party, and in the same year they took part in the play *Ci ragiono e canto* written by the Nobel Prize for Literature recipient, Dario Fo.

Figure 7. Salvatore Stangoni (4th from the right) in front of the local Aggius headquarters for the Italian Communist Party. Photo: Andrea Suelzu

On 5 October 1972 *Gli Aggius* went to the studios of the 'Fonit Cetra' label to record the disc *La me' brunedda è bruna* (My sweet brunette is a brunette), which was published the following year (Figure 08). The LP is included in the 'Folk series', founded and directed by Giancarlo Governi, which releases the albums of some of the best-known Italian folk revival singers and groups such as Otello Profazio, Caterina Bueno, Rosa Balistreri, Il Canzoniere Internazionale, Maria Monti and the Duo di Piadena.

19 Salvatore Stangoni (1902-1981) was the youngest singer of the *a tàsgia* group Gavino Gabriel recorded in 1933.

Figure 8. Cover of the album *La me' brunedda è bruna* by Gli Aggius.

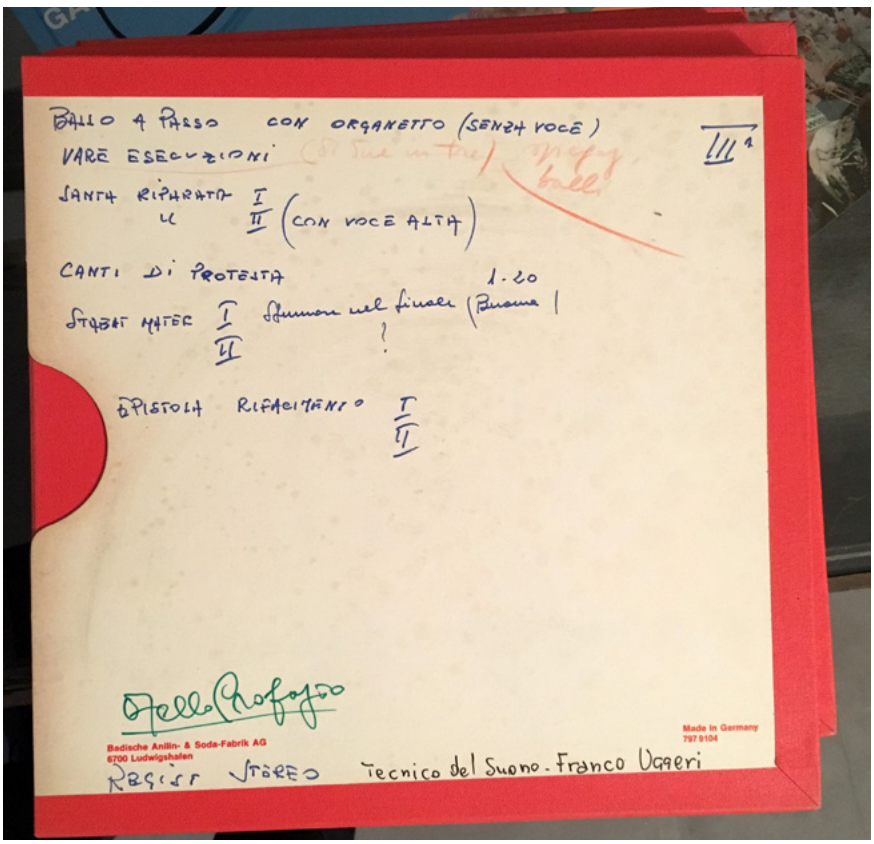

Figure 9. One of the five tapes containing the whole recording session for the disc, *La me' brunedda è bruna*.

A few years ago, during a solemn ceremony, the producers of the album Dario Toccaceli and Otello Profazio donated the five tapes containing the full recording session to the Aggius community (Figure 09). Listening to this raw material allowed me to reflect on the recording studio policies. Even in the least charged situations, producing a record is never a neutral operation: during the various stages, choices are made that direct, even politically, the meanings that the album will be able to convey and, at least in part, how it will be received by the audience. To understand the performative project that lies behind each recording artefact we must fully cognisant of various levels of political interaction. As Louise Meintjes states:

> To talk of the politics of a recording studio, then, is to attend to two intersecting political planes. First, the micro-politics of studio interaction determine what sounds are recorded for commercial distribution. [...] Second, the micro-politics of studio interaction are a prism for the political dynamics of the historically specific moment and place. (Meintjes 2009: 86)

During the recording of *La me' brunedda è bruna*, before or after each take, the producers asked Stangoni to describe the songs they were about to perform. For each song, the singer indicated a title, translated the lyrics and explained its meaning, providing information about the occasions at which the song was usually performed. As in the previous LP published by 'I Dischi del Sole', some fragments of Stangoni's answers were included on the tracklist. Comparing these fragments with the full dialogues between Stangoni and the producers, as well as the songs recorded with the ones included on the track list, allows us to better understand the political purposes underlying the production of the album.

In *a tàsgia* singing, the phenomenon of 'travestimento' (musical transvestism) is very common. Here, it consists in replacing the Latin words of a religious song with a vernacular lyric to be sung as a secular song. In this way, a melody usually sung on a sacred occasion such as the Holy Week rituals can be performed for profane occasions.

Tape 1 starts with the secular versions of the Biblical psalm *Miserere*[20] and the hymn *Gloria Laus et honor*. The lyrics of this Psalm are replaced with some lines from the love poem *Amori a l'umbra d'un buscu* (Love in the shade of a forest) by the local lawyer and poet Michele Pisano (1857-1925). The lyrics of the hymn, by contrast, are replaced with the words of *Bedda, li mei 'iltù* (Beauty, my virtues) by the poet and *a tàsgia* singer from Aggius Salvatore Biosa (1891-1959).[21] The following dialogue was captured on tape between the recording of the psalm and the hymn:

Producer:	Is this a lamentation?
Stangoni:	It's a lament song.
Producer:	I don't understand, is it a prayer?
Stangoni:	It is the Miserere: *Miserere mei, Deus, secundum magnam misericordiam tuam*. It is a prayer addressed to the dying Christ. 'Have mercy on me', as the Miserere says.
Producer:	And what about the other song?
Stangoni:	The other one is called the Gloria: *Gloria laus et honor*. It refers to people acclaiming Christ entering Jerusalem. We used to sing it on Palm Sunday. (Tape 1, min. 4:33)

Link » Audio Example 2

Dialogue between Salvatore Stangoni and the producer during the recording session for *La me' brunedda è bruna*.

Although Stangoni is perfectly aware of the differences between the two versions, he in fact considers them to be the same song. So, even when singing the versions with secular lyrics, he only describes the occasion on which the versions with Latin words are sung. The producers,

20 The *Miserere* is still sung during the Holy Wednesday and Friday rituals, while the *Gloria Laus et honor* is today performed for Palm Sunday.

21 The melody of the *Miserere* with secular words is track 1 of the LP (*E la bedda e un'agnula paria*), while the 'travestimento' of the *Gloria Laus et honor* can be heard on track 3 (*Bedda li mei 'iltu*).

mainly interested in representing folk music as a form of political contestation against the upper classes and less interested in the religious aspects of the music they were recording, decided not to include this recorded piece of dialogue in the album. But they tried to bring up this topic again during another recorded conversation:

Producer: Do protest songs exist in your repertoire?
Stangoni: No
Producer: Why?
Stangoni: Because our poets were generally afraid of the boss. In a word: we had the mafia too. They were afraid to write protest songs against employers, who exploited workers.
Producer: So, how did the farmers protest?
Stangoni: They usually didn't protest, there was no reaction. But to be honest, sometimes they even used a rifle! (Tape 1, min. 7:21)

Link » Audio example 3

Dialogue about protest songs between Salvatore Stangoni and the producer during the recording session for *La me' brunedda è bruna*.

Since Stangoni's claims could not be published, the producers tried asking again during the recording of another tape so as to get a more suitable answer, which was then included on the album:

Stangoni: We have no protest songs because the poets were afraid of the boss. They were under their thumb! (LP *La me' brunnedda è bruna*, track 12, min. 0:00)

Stangoni considered the phenomenon of the 'travestimento' as an important and strongly characteristic aspect of Aggius's musical tradition. Thus, he proposed to sing the two versions of a song that is usually performed in church on Good Friday. In this case, the Latin text comes from the fourth Letter to the Hebrews, while the lyrics of the profane version were drawn from a love poem in the Gallurese language composed by the 18th-century priest and poet Gavino Pes.[22] Stangoni sung two lines of the religious version and then switched directly to the secular one. The producers asked the group to sing it one more time afterwards, and finally a version containing only the love lyric was included on the disc (Side A, track 10, *Di li musi in li monti*).

As it might seem from the latter example, Stangoni is not simply the victim of the producers' will. Their goals partly coincide and partly were negotiated during the recording session. It is interesting to note what happened during the recording of the track that opens the B side, entitled *Canto di protesta* (Protest song). This is how Stangoni described the song:

Stangoni: This is one of the few protest songs we know in our traditions:
Since we were born, we worked in the countryside / we poured blood and sweat / and our earnings went into the pockets of the wealthy exploiters.
Producer: Can you tell us something more about this song?
Stangoni: We worked in the countryside from morning to night, blood was spilled, and we weren't paid... they weren't paid. And the little money earned was all used to buy goods, so the rich continued to get rich and the poor always remained destitute. (Tape 3, min. 10:16)

Link » Audio Example 4

Presentation of *Canto di protesta* by Salvatore Stangoni during the recording session for *La me' brunedda è bruna*.

22 Gallurese is a language variant spoken in Aggius, which lies in the region of Gallura, northeastern Sardinia.

Six years later, during an interview with the journalist Gianni Novelli, Stangoni provides another version regarding the origin of the text:

> When I was in Milan, Dario Fo told me: «Write Balori: We struggled to come to the world / suffered when we were children / suffered in the fields / suffered famine / then disease / and eventually death / and they send us to hell». When I finished writing he told me: «Now you have to translate it into your dialect and you must sing using whatever melody you want». I replied: «It's not simple! how can I do this?». He replied: «Salvatore, I know you will succeed». When I went to bed, I mulled it over. We took a church song and we replaced the Latin words, and we succeeded. We took the Miserere and we changed the words (Novelli 1978: 10).[23]

The text of the protest song did not therefore come from the Aggius tradition, as Stangoni maintains in front of the microphone when asked by the producers. In fact, it was conceived by Dario Fo, and adapted and translated into the Gallurese language by Stangoni.[24]

As Meintjes states, the recording studio's policies operate at different levels. In the case just presented, at the micro-political level we can find the negotiation between the producers and the musicians to define the tracks to be included on the album. The former tended to hide the relevance of the religious repertoire and to emphasise the presence of protest songs. Stangoni, who shares their same ideology, described as 'traditional', a text that clearly was not. At the same time, he also presents the Aggius repertoire as the result of a close relationship between sacred and profane songs. On a more general level, this micro-political level was nothing but the mirror of a wider phenomenon, that of the use of folk music as a tool to legitimise the battles carried out by the Italian Left of the 1960s and 1970s.

Giovanni Carlini and the *quintina* from Bosa

Giovanni Carlini is a highly experienced professional sound engineer based in Sardinia. In 1997 he founded the Live Studio, the studio where I also worked, a recording studio located in Cagliari where mainly jazz, popular and traditional Sardinian music is recorded.

In 2004 two groups of singers from the small town of Bosa commissioned Live Studio to produce their first CD, titled *Bosa nella musica: Boghes a traggiu* (Figure 10).[25] We set up our mobile studio in order to reach the place that the singers chose for the recording session: the 18th century Church of 'Santa Maria degli Angeli' (St. Mary of the Angels), located in Bosa, a place where they had been singing for many years. During the preliminary survey, the group leader showed me and Giovanni the locations where the singers were most comfortable, and according to the acoustics of the environment, Giovanni selected the most suitable spot for recording purposes, a small side chapel.

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23 Original version: «Dario Fo, ad esempio, quando stavo a Milano, mi ha detto questo: 'Scrivi Balori: Abbiamo faticato a venire al mondo/ patito da bambini/ sofferto nei campi/ patito la carestia/ poi la malattia/ e alla fine la morte/ e ci mandano all'inferno'. Finito di scrivere mi ha detto: 'Adesso tu me lo traduci in dialetto e me lo devi cantare in un motivo, quello che vuoi tu'. Ed io ho detto: 'È una parola! come posso fare a far questo?'. Mi rispose: 'Salvatore, so che ce la puoi fare e ce la farai'. Io quando andavo a letto rimuginavo. Abbiamo ripensato ai canti di chiesa e abbiamo sostituito le parole dialettali al latino, ed alla fine ci siamo riusciti. Abbiamo ripreso il Miserere e gli abbiamo cambiato le parole.».

24 The song with this lyric was performed for the first time in the play *Ci ragiono e canto*. Although Stangoni's contribution was fundamental, the text is attributed exclusively to Dario Fo in the play's script (1977: 178).

25 In Bosa the local multipart singing tradition is called *a tràgiu*; for more information see Milleddu, Oliva & Pisanu (2015).

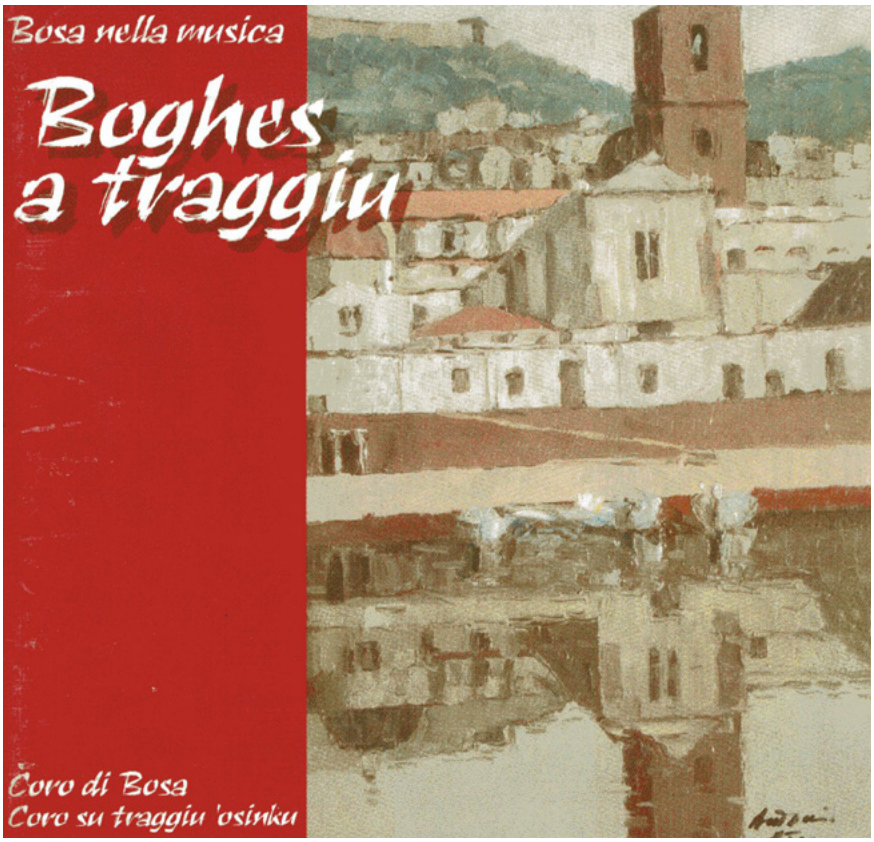


Figure 10. Cover of the disc, *Boghes a traggiu,* by Coro di Bosa and Coro su traggiu 'osinku.

The post-production was carried out in the Live Studio control room. The mixing process was also negotiated between the sound engineer and the musicians. Giovanni knew which sound parameters could be changed and which could not; he had full control of the devices that would allow these changes, and also had his own taste regarding the sound that a vocal quartet should have. The singers, too, had their own sound aesthetic, mainly expressed in terms of the balance between the parts and the timbre of the voices. At one point, Giovanni and the singers began to discuss the amalgam of sound. The latter were not completely satisfied, because there was no 'whistle', as they called it. I immediately understood that they were referring to the *quintina*.

The *quintina* is a very common acoustic phenomenon in the traditional multipart singing of Sardinia, described for the first time by Bernard Lortat-Jacob. It mainly concerns the colour of sound and is an important aspect in discussions between singers on the aesthetics of their music. As Lortat-Jacob states:

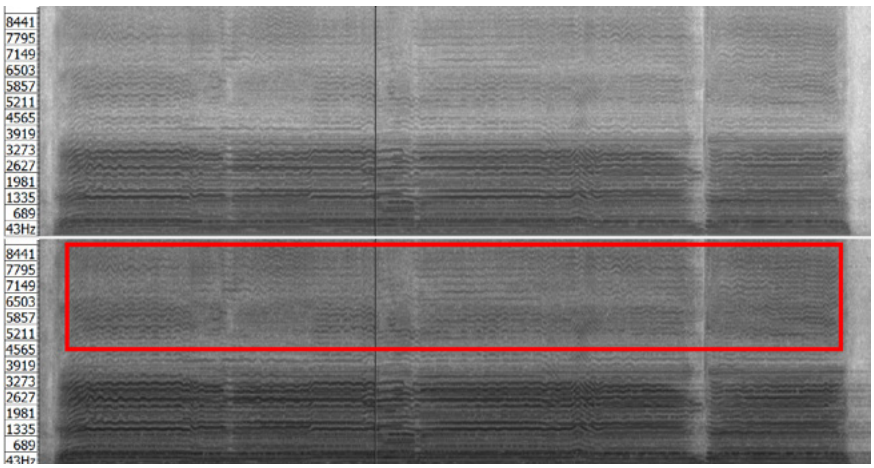
> In their vocal practices [...] singers have a goal, and even, one could say, an aesthetic project that, at each performance is performed more or less well. [...] It is as if their attention, as much as their intention, was centred not on a broad spectrum, but on a much more restricted frequency band where suddenly, as they say themselves, the voices split making it possible to hear a fifth one: the *quintina*. The *quintina* is produced by the fusion of the overtones. It emerges from the perfect harmony of the singers (in every sense of the word) and their conjugated voices combine to make it fully audible (Lortat-Jacob 1993: 80–81, my translation).[26]

26 Original version: «Dans leurs pratiques vocales [...] les chanteurs ont un but, et même, pourrait-on dire, un projet esthétique qui, à chaque exécution se réalise plus ou moins bien. [...] Tout se passe comme si leur attention, autant que leur intention, étaient centrées non pas sur un vaste spectre, mais sur une bande de fréquence beaucoup plus restreinte où soudain, comme ils le disent eux-même, les voix se dédoublent pour en faire apparaître une autre: la quintina. La quintina est produite par la fusion d'harmoniques dont les cycles concordent. Elle naît de l'accord parfait des chanteurs (dans tous les sens du terme) et leurs voix conjuguées concourent à la render pleinement audible.».

I used graphic representations I found in Lortat-Jacob's academic publications to explain to Giovanni the acoustic principles that generate the *quintina* (Lortat-Jacob 1993; 1996).

During the performance, the intonation of the voices was good and the *quintina* was clearly audible, but because of the room's acoustics it was much less present in the raw recording. So Giovanni started to equalise the tracks emphasising the frequencies in the high-mid band of the spectrum so that the *quintina* could be heard. Gradually, the singers became more comfortable with the possibilities the studio offered for processing the sound.

Listening to their conversations and observing how they interacted with Giovanni, it was clear to me that their goal was not to exactly reproduce the sound of their performance in the church. The singers had their own 'ideal sound' which, with Giovanni's help, they were trying to replicate. The reverberation, the timbre of the single voices (and of the entire quartet), and the location of their voices in the stereo mix were the aspects to which they paid most attention. We spent two days working on these details until we achieved a result that satisfied the singers. The difference between the raw recordings and the mixed track can be clearly perceived by comparing the files kept in the Live Studio archive with the tracks contained on the CD. Figure 11 shows the spectrograms of the pre- and post-mixing version of one of the songs (*A su nascher de Gesus*, tracks 17) where we can see how the intensity increases in the area of the mid-high frequencies, the area of the *quintina*.



Comparison between the spectrograms of the raw recording (above) and the post-produced track (below) of a fragment of the song 'A su nascher de Gesus', CD *Boghes a traggiu*, track 17.

Link » Audio Example 5

A su nascher de Gesus, premix version.

Link » Audio Example 6

A su nascher de Gesus, mixed and mastered version.

Conclusions

The invention of devices capable of fixing sound and the development of the record industry radically transformed the way we experience music, making all of us part of what Michael Chanan called 'record culture' (Chanan 1995). In this new culture, in which the musical performance can be separated from the moment of its listening, the recording studio - the place where a live performance is transformed into an object - plays a fundamental role. While everyone can listen to the result of the work carried out in the studio, few are granted access. What happens inside a studio affects our everyday life, but little is known about what happens inside.

The recording studio is a social space where music-oriented interaction happens. People with different roles, attitudes, skills and tasks collaborate, even with the support of various tools (musical instruments, microphone, recording devices) to produce a recorded artefact. To achieve this goal, musicians are asked to adopt behaviours that differ from those adopted on the other occasions in which they make music. Collective or individual performative projects lead the work in the studio. Just as for any group of people who collaborate to achieve a goal, micro-political interactions, negotiation and compromises must be taken into consideration to understand the production process. And as I argue in this article, this occurs not only in the field of popular music but also in traditional music recordings, both those made for commercial and also for research purposes.

Focusing on the dialogues, behaviours and interactions that take place in a recording studio can tell us more about how the music produced in that place is conceived and shaped. Ethnographic research tools, understood as a large family of investigation methods, can be useful for this purpose. Discourse-centred, dialogical and collaborative approaches, autoethnography, as well as an *a posteriori* reconstruction through various sources such as written reports, notes, sketches, cut takes, or the analysis of the recorded sounds themselves, are all tools the ethnographer of the recording studio may use to investigate the social dimension of the creative processes that happen in a place as mysterious and fascinating as it is fundamental in the life of a 21st-century *homo musicus*.[27]

References

ANGELI, Paolo
2006 *Canto in re. La gara a chitarra nella Sardegna settentrionale*, ISRE, Nuoro

AROM, Simha
1991 *African Polyphony and Polyrhythm: Musical Structure and Methodology*, Cambridge University Press, Cambridge

AUSLANDER, Philip
2008 *Liveness. Performance in a Mediatized Culture*, Routledge, London

BATES, Eliot
2016 *Digital Tradition: Arrangement and Labor in Istanbul's Recording Studio Culture*, Oxford University Press, Oxford

BENTZON, Andreas F. W.
1969 *The Launeddas: A Sardinian Folk Music Instrument*, 2 vol., Akademisk Forlag, Copenaghen
2010 *Launeddas*, 2 vol., Iscandula, Cagliari

BERNARD, H. Russell, C. Gravlee CLARENCE (eds.)
2015 *Handbook of Methods in Cultural Anthropology*, 2 ed., Rowman & Littlefield, Lanham

BLACKING, John
1971 'Deep and Surface Structures in Venda Music', *Yearbook of the International Folk Music Council*, 3: 91–108

BORIO, Gianmario (ed.)
2015 *Musical Listening in the Age of Technological Reproduction*, Routledge. London

27 Thanks to Kristina Jacobsen for proofreading the article.

BRATUS, Alessandro
2016 'Performance del/nel testo: per un approccio analitico alla mediazione tecnologica dell'evento performativo nella popular music registrata' in Michela Garda e Elena Ronconi (eds.) *Registrare la performance: Testi, modelli, simulacri tra memoria e immaginazione*, Pavia University Press, Pavia: 109–30

CARPITELLA, Diego
1973 *Musica e tradizione orale*, Flaccovio, Palermo

CASU, Francesco, Marco LUTZU (eds.)
2012 *Enciclopedia della Musica Sarda*, 16 vol, L'Unione Sarda, Cagliari

CHANAN, Michael
1995 *Repeated Takes: A Short History of Recording and its Effects on Music*, Verso, London & New York

CHANG, Heewon
2008 *Autoethnography as Method*, Left Coast Press, Walnut Creek

COOK, Nicholas
2001 'Between Process and Product: Music and/as Performance' *Music Theory Online* 7 (2), http://www.mtosmt.org/issues/mto.01.7.2/mto.01.7.2.cook.html, last access December 27, 2023
2013 *Beyond the Score: Music as Performance*, Oxford University Press, Oxford

COOK, Nicholas, Eric CLARKE, Daniel LEECH-WILKINSON, and John RINK (eds.)
2009 *The Cambridge Companion to Recorded Music*, Cambridge University Press, Cambridge

COULDRY, Nick
2008 'Mediatization or mediation? Alternative understandings of the emergent space of digital storytelling' *New Media & Society*, 10 (3): 373–91

ELLIS, Carolyn, Arthur P. BOCHNER
2000 'Autoethnography, Personal Narrative, Reflexivity: Researcher as Subject' in Norman K. Denzin e Yvonna S. Lincoln (eds.) *Handbook of Qualitative Research*, 2nd. ed., Sage Publications, Thousand Oaks 733-768

FACCI, Serena
2010 'Suoni' in Cecilia Pennaccini (ed.) *La ricerca sul campo in antropologia: oggetti e metodi*, Carocci, Roma: 223–55
2018 'Il grammofono educativo: un progetto di Gavino Gabriel' in Susanna Pasticci (ed.) *Musica e identità nel Novecento italiano: il caso di Gavino Gabriel*, Libreria Musicale Italiana, Lucca; 55–70

FELD, Steven
1994 'From Schizophonia to Schismogenesis: The Discourses and Practices of World Music and World Beat' in Steven Feld e Charles Keil (eds.) *Music Grooves: Essays and Dialogues*, University of Chicago Press, Chicago: 257–89
1996 'Pygmy POP. A Genealogy of Schizophonic Mimesis' *Yearbook for Traditional Music*, 28: 1–35

FELD, Steven, Aaron FOX, Thomas PORCELLO, and David SAMUELS
2004 'Vocal Anthropology: From the Music of Language to the Language of Song' in Alessandro Duranti (ed.) *A Companion to Linguistic Anthropology*, Blackwell Publishing, Malden: 321–45

FO, Dario
1977 *Le commedie di Dario Fo, vol. 5, Mistero Buffo, Ci ragiono e Canto*, Einaudi, Torino

GABRIEL, Gavino
1934 *Musica a centimetri: avvisaglie e schermaglie fonografiche*, Ausonia, Roma
1936 'Laofonografia' in VV. AA., *Atti del III Congresso nazionale di arti e tradizioni popolari (Trento - settembre 1934 XII)*, Edizione dell'O.N.D., Roma: 347–49

GREENE, Paul D., and Thomas PORCELLO (eds.)
2005 *Wired for Sound: Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown

GUALERZI, Manuela
1982 'Discografia della musica popolare sarda a 78 rpm (1922-1959) ' *Culture Musicali. Quaderni di etnomusicologia*, 2: 167–92

JONES, Stacy Holman, Tony E. ADAMS, and Carolyn ELLIS
2016 *Handbook of Autoethnography*, Routledge, New York

KEALY, Edward R.
1979 'From Craft to Art: The Case of Sound Mixers and Popular Music' *Sociology of Work and Occupations*, 6 (1): 3–29

LEYDI, Roberto
1996 *Il fonografo e la ricerca etnomusicologica in Italia* in Roberto Leydi and Febo Guizzi (eds.) *Gli strumenti musicali e l'etnografia italiana (1881-1911)*, Libreria Musicale Italiana, Lucca: 223-227

LORTAT-JACOB, Bernard
1993 'En accord, polyphonies de Sardaigne: quatre voix qui n'en font qu'une' *Cahiers de musiques traditionnelles*, 6: 69–86
1996 *Canti di Passione*, Libreria Musicale Italiana, Lucca

LUTZU, Marco
2012 *Launeddas,* in Francesco Casu and Marco Lutzu (eds.), *Enciclopedia della Musica Sarda*, Vol. 11., L'Unione Sarda, Cagliari
2015 *Musiche tradizionali di Aggius. Le registrazioni del CNSMP (1950-1962)*, Squilibri, Roma
2018 'Gavino Gabriel, studioso di folklore musicale' in Susanna Pasticci (ed.) *Musica e identità nel Novecento italiano: il caso di Gavino Gabriel*, Libreria Musicale Italiana: Lucca: 185–216
2023 'Boghes. La mediazione tecnologica della voce nel canto a quattro della tradizione sarda' in Michela Garda (ed.) *La mediazione tecnologica della voce*, NeoClassica: Roma: 45–62

MACCHIARELLA, Ignazio, and Emilio TAMBURINI
2018 *Le voci ritrovate. Canti e narrazioni di prigionieri italiani della Grande Guerra negli archivi sonori di Berlino*, Nota, Udine

MANUEL, Peter
1991 'The Cassette Industry and Popular Music in North India' *Popular Music*, 10 (2): 189–204
1993 *Cassette Culture: Popular Music and Technology in North India*, University of Chicago Press, Chicago

MEINTJES, Louise
2003 *Sound of Africa! Making Music Zulu in a South African Studio*, Duke University Press, Durham & London
2009 'The politics of the recording studio: A case study from South Africa' in Nicholas Cook, Eric Clarke, Daniel Leech-Wilkinson, and John Rink (eds.) *The Cambridge Companion to Recorded Music*, Cambridge University Press, Cambridge: 84–97

MILLEDDU, Roberto
2018 '"Il sardo prodigioso": Gavino Gabriel, performer e divulgatore' in Susanna Pasticci (ed.) *Musica e identità nel Novecento italiano: il caso di Gavino Gabriel*, Libreria Musicale Italiana: Lucca: 247–68

MILLEDDU, Roberto, Luigi OLIVA, and Salvatorangelo PISANU (eds.)
2015 *Le musiche di Bosa. Fare musica in Sardegna fra storia e attualtà*, Nota, Udine

MOORE, Allan F.
2012 *Song Means: Analysing and Interpreting Recorded Popular Song*, Ashgate, Farnham and Burlington

NOVELLI, Gianni
1978 'L'altra storia: la gente di Aggius ha ritrovato la voce che gli tolsero nel 1948' *CNT*, 15: 10

PASTICCI, Susanna (ed.)
2018 *Musica e identità nel Novecento italiano: il caso di Gavino Gabriel*, Libreria Musicale Italiana: Lucca

PIASERE, Leonardo
2002 *L'etnografo imperfetto: esperienza e cognizione in antropologia*, Laterza, Roma

PILOSU, Sebastiano
2018 *Il canto a tenore di Orgosolo. Le registrazioni del CNSMP (1955-1961)*, Squilibri, Roma

PORCELLO, Thomas
1998 '"Tails out": Social Phenomenology and the Ethnographic Representation of Technology in Music-Making' *Ethnomusicology*, 42 (3): 485–510

RINK, John
2002 *Musical Performance: A Guide to Understanding*, Cambridge University Press, Cambridge
2005 (ed.) *The Practice of Performance: Studies in Musical Interpretation*, Cambridge University Press, Cambridge

SASSU, Pietro
1994 '*The launeddas and Sardinian Music*', booklet of the CD *Efisio Melis avec Gavino De Lunas et Antonio Pisano (1994) Les Launeddas en Sardaigne, 1930-1950*, Silex, CD (Y225106): 22-23

SCHLOSS, Joseph G.
2004 *Making Beats: The Art of Sample-Based Hip-Hop*, Wesleyan University Press, Middletown

SZCZEPANIK, Petr
2013 'On the Ethnography of Media Production: An Interview with Georgina Born' *Iluminace*, 25: 100–119

TAYLOR, Timothy D.
2001 *Strange Sounds: Music, Technology & Culture*, Routledge, New York

ZAGORSKI-THOMAS, Simon
2014 *The Musicology of Record Production*, Cambridge University Press, Cambridge

Discography

1933 Canti di Sardegna diretti da Gavino Gabriel, I cinque aggesi, *Tasgia – Lu passu, li salti*, Fono Roma, 78rpm (T 501)
1933 Canti di Sardegna diretti da Gavino Gabriel, I cinque aggesi, *La me brunedda– Loda*, Fono Roma, 78rpm (T 502)
1933 Canti di Sardegna diretti da Gavino Gabriel, I cinque aggesi, *Andira – Gloria*, Fono Roma, 78rpm (T 503)
1933 Canti di Sardegna diretti da Gavino Gabriel, I cinque aggesi, *Candu notti cunniscia – Ottava*, Fono Roma, 78rpm (T 504)

1929 Cori sardi di Barbagia, *Impuddile - Boghe de notte*, Edison Bell, 78rpm (M 897)
1929 Cori sardi di Barbagia, *Terzu dorgaluesu – S'alligrittu*, Edison Bell, 78rpm (M 898)
1929 Cori sardi di Barbagia, *Muttos dorgalesus – S'andira*, Edison Bell, 78rpm (M 899)
1929 Cori sardi di Barbagia, *Ballu de tres passos – Ballu torradu*, Edison Bell, 78rpm (M 900)
1929 Cori sardi di Barbagia, *Ninna nanna e Nostra Signora – S'innu a Santa Maria*, Edison Bell, 78rpm (M 901)

2004 Coro di Bosa, Coro su traggiu 'osinku, *Bosa nella musica: Boghes a traggiu*, Self-produced, CD

1994 Efisio Melis avec Gavino De Lunas et Antonio Pisano *Les Launeddas en Sardaigne*, 1930-1950, Silex, CD (Y225106)
2010 Efisio Melis, *A Launeddas. I maestri delle launeddas* series, vol. 1 (ed. by Marco Lutzu), Frorias, CD (CD 2010/8)

1966 Gli Aggius, *Coro del galletto di Gallura*, I dischi del sole, LP (DS 131/33)
1973 Gli Aggius, coro del Galletto di Gallura, *La me' brunedda è bruna*, Cetra, LP (LPP 211)

2007 Su tenore durgalesu, *Su tenore durgalesu de su 1929*, Comunità Montana n° 9 del nuorese, Consulta del Canto a Tenore, Comune di Dorgali, Associazione pro Missione Dorgali-Brasile, CD

1996 Tenores di Bitti, *S'amore 'e mama*, Real World Records, CD (CDRW 60)

Film Sound and Film Music Production Processes: an Ethnomusicological Perspective[1]

Ilario Meandri

The ethnomusicological research in which I have been engaged in the past few years largely concerns film sound production and post-production in Italy – studied both diachronically and synchronically – and film music in the contemporary North American film industry. These two processes – composition and sound effects postproduction – along with ADR[2] and, in Italian practice, dubbing foreign language films, take shape at the same time and rely on a vast network of professional figures (dozens and dozens) and facilities. The various working phases are only partially carried out in actual recording studios, which in any case are often significantly different from recording studios designed for popular music tracking and mixing. My research method was based on a systematic collection and analysis of the oral sources provided by technicians and other professionals, above all in diachronically studying Italian practices and analysing technological change over time. As regards my work done in Italy, verifying and collating oral sources allowed me to reconstruct with a good degree of precision, in a series of monographic studies, the history of post-production practices used by one of the main European post-production facilities based in Rome, International Recording; in the area of North American film music composition, this same procedure allowed me to study film music composers' work.

While my inquiry, which began around 2004, was still fully in progress, the panorama of film studies and musicology dealing with film music and film sound was undergoing remarkable changes, opening up to ethnographic research. In previous decades, using approaches bordering on a cultural-anthropological reading, specialised film studies had already looked into the ritual value given to stereotypes and narrative clichés, repetition and formulas in the system of film genres. Among the many works that appeared in this area, one must mention at least Schatz (1981) and, more recently, Schweinitz (2011). These are, however, studies whose undeniable anthropological slant is still oriented by a textualist approach. Increasingly close

1 The present work is based on previous fieldwork whose results were published, mainly in Italian, in Meandri (2011, 2013, 2014, 2016a, 2016b, 2019). A few paragraphs have been taken from these texts, along with all of the ethnographic data concerning the practices described here, inserted in a new context and broadened by previously unpublished methodological reflections. Any references to previously published texts are included in the footnotes. This article was translated into English by Brent Waterhouse.

2 In contemporary American practice the acronym ADR stands for Automated Dialogue Replacement, which consists in the actors of the film re-recording fragments whose quality was not good or segments for which it was not possible to use direct recording, for various technical reasons.

contact with early media anthropology,[3] and the birth of a transcultural and transnational field of enquiry, later gave way to a consistent number of works adopting an ethnographic or *quasi*-ethnographic[4] approach; here, the pre-eminent fields of research concerned production processes and audiences, areas in which direct observation – even while not always involving participant observation in a strictly ethnographic sense – is often decisive. A variety of *quasi*-ethnographic approaches thus emerged – however, providing even a partial review of the methodologies adopted does not fall within the scope of this contribution. What must be stressed is that many tools once exclusively used in studies inspired by ethnography and/or sociology became more common in film studies and musicology especially in the last decade. These approaches include extensive use of qualitative interviews, network analysis and participant observation (a research methodology that has at times been defined as 'embedded research').[5] And yet, in this area, some mention (or even a simple acknowledgement of their existence) only rarely goes to important ethnographic precedents dedicated to film production and reception communities, such as the works by Hortense Powdermaker (1950) and Robert Faulkner (1971; 1983). The two studies that Faulkner dedicated to Hollywood musicians, in particular, bring a number of fields to overlap (ethnography and [ethno]-musicology, sociology of music, sociology of work and industry) and are still today little-known outside of these disciplines.

In my first paragraph, I will analytically, albeit briefly, examine these works. As I will argue more explicitly in my conclusions, these studies, as well as the ethnography of film production processes, cannot however be entirely labelled as 'ethnographies of recording studios', due among other things to the fact that by their very nature, film production processes take place over a variety of locations and involve a number of different facilities (as mentioned above, recording studios being only a part of these processes).[6]

In my second paragraph, I will briefly discuss the case of Italian sound effects and Foley artists. My aim is to demonstrate that extended research on oral sources is able to diachronically reconstruct the history of technologies and production processes, with a remarkable degree of precision. Lastly, I will consider, reflexively and retrospectively, some issues that emerged in the preceding paragraphs and, more generally, the problems that arose during my research experience.

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3 For a non-exhaustive list of texts on this topic, see: Spitulnik (1993); Peterson (2003); Ginsburg, Abu-Lughod, and Larkin (2002); Born (2004); Born (2005); Rothenbuhler and Coman (2005); Booth (2008); Tejaswini (2012); Martin (2017). See also the work of the Media Anthropology Network, European Association of Social Anthropologists (EASA), whose initiatives and conferences have given, in my opinion, a fundamental input to research in this area (http://www.media-anthropology.net, last access December 28th, 2023).

4 With the term *quasi*-ethnographic I refer to the use, within disciplines such as musicology or media studies in which fieldwork does not traditionally play a central role, of a sub-set of research methods borrowed from ethnography or sociology. As we shall see shortly, these methods come into play above all when studying production processes and audiences. Adopting these methodologies does not necessarily require a researcher to subscribe to the methodological and deontological paradigms found in ethnography, hence the prefix *quasi*. This is the case, for example, when work is carried out for an extended period of time with a partner in the industry (e.g. a major film producer or a company specialised in particular aspects of post-production), as part of an initiative in technological transfer. In reality, this work requires the use of participant observation, even though it is not explicitly qualified as such nor given the same methodological treatment. Other examples might include an extensive use, whether in media studies or in musicology, of qualitative interviews, network analysis or focus groups. None of these techniques, while falling within the methodological arsenal developed by ethnography and sociology, are used in specifically ethnographic or sociological studies. A good example of the latter approach is the work done by Sapiro (2016) on the relations between composer and orchestrator in North American and British cinema.

5 This term is used differently in different disciplines, most likely deriving from journalism ('embedded journalism', which describes a war reporter as an attaché of a military unit). Regardless of the fact that the choice of this label, which originally refers to journalistic practices that have been severely criticised, is not without its problems, it has been applied in other fields as well. When it appears in film studies, it is used to describe the case of researchers or technicians who carry out their research at the institution under investigation (e.g. in education, medicine), openly declaring their role as researchers and agreeing on a course of research with the personnel of the host institution. For a definition of the term, see MGinity and Salokangas (2014).

6 Powdermaker (1950) did not locate her research in the studios but carried out an actual study on moviemakers. The case of Faulkner (1971 and 1983) only partially concerns works that fall under this label, because both enquiries find *in musicians* and only marginally *in the studio* the underlying object investigated.

Hortense Powdermaker and Robert Faulkner: some remarks on the works of two pioneers

Hortense Powdermaker (1896 - 1970) studied with Malinowski at the London School of Economics. Her earliest research shared the interest shown by anthropologists of the time towards primitive societies and is largely based on the theses maintained by Radcliffe-Brown and Evans-Pritchard, with whom she collaborated.[7] After meeting Edward Sapir at Yale University's IHR (Institute of Human Relations), Powdermaker gradually oriented her research towards contemporary American society. During the early 1930s as part of her fieldwork dedicated to the difficult relations between the white and African American communities in the South, which eventually led to one of her most distinctive works (*After Freedom: A Cultural Study in the Deep South*, 1939), she began working on an intuition that soon brought her to do fieldwork in the heart of Hollywood. In her time off work, Powdermaker became interested in movies, going to the theatres frequented by the local community. Her interest was piqued by the fact that the audience, both white and African American, tended to perceive these films as 'representations of real life' (Cherneff 1991: 431)[8]: we are aware that they are works of fiction, Powdermaker maintains, but we also believe – and this is one of the primary anthropological functions of these narrations – that they somehow contain *truths* as to how individuals lead their own lives. Many of the protagonists of the reception contexts explored by Powdermaker, above all those with a low level of education, did not clearly perceive the boundary between reality and fiction:

> Movies have a surface realism which tends to disguise fantasy and makes it seem true. [...] Since the people on the screen seem real and 'natural' and the backgrounds and setting honest, the human relationships portrayed must, the spectator feels, be likewise true. It is this quality of realness that makes the escape into the world of movies so powerful, bringing with it conscious and unconscious absorption of the screen play's values and ideas. The statement that the primary function of movies is entertainment is clearly not the end of the question. All entertainment is education in some way, many times more effective than schools because of the appeal to the emotions rather than to the intellect. 'Precisely because they wear the warmth and color of the senses, the arts are probably the strongest and deepest of all educative forces' (Powdermaker 1950: 14).[9]

In *Copper Town: Changing Africa* (Powdermaker 1962) – a later work, in some regards more mature than *Hollywood, The Dream Factory* – Powdermaker concentrated her research on North Rhodesia (currently Zambia). Here, what interested her was the impact of Western film production on an isolated community of spectators, along with the relations between cinema and colonialism and the many cultural misconstructions created by cinema: for example, the local audience's unwillingness to fully acquiesce to the conventions of fiction narration, and their ensuing disapproval when a star who supposedly 'died' in a previous story reappeared in a new film. More conventional in its methods and its ethnographic context, *Copper Town* finds its place in the tradition of transcultural studies on audiences and reception communities, a topic that still today underlies the difficult and never entirely fulfilled attempt to theoretically systematise media anthropology. And yet, *Copper Town* lacks the courage and the ambition found in the innovative project behind *The Dream Factory*: bringing cultural anthropology into the heart of the pervasive 'shared truths' fuelled by the Hollywood studios. Powdermaker had initially conceived a cultural analysis of the content of these films – a model that cultural anthropology had already partially proposed, for example in Ruth Benedict's work on Japa-

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7 Among these works, mention must go to a dissertation on leadership in primitive societies (1928) and studies on the Papa New Guinea Lesu (published in 1933).

8 The majority of the biographical information provided here comes from the essay by Jill Cherneff (1991) published in a single issue of the 'Journal of Anthropological Research' entirely dedicated to the legacy of Hortense Powdermaker.

9 In the internal quotation, Powdermaker cites a report by the Harvard Committee entitled *General Education in a Free Society*. The previous paragraph and the following ones, until the words 'passes from orchestration to composition' have been translated, with modifications, from Meandri (2012: 23ss.).

nese cinema or Bateson's on Nazi cinema.[10] Her project aimed at understanding which stories were read by the community as examples of real life that could inspire and guide their lives, and in so doing understand how many of these stories could function as 'culture patterns' (a term clearly modelled on the one used by Benedict). After her initial interest in the reactions of a community audience, followed by an anthropologically oriented project in textual analysis, her research project soon reached a decisive turning point. During a preliminary discussion with director Pàl Fejös, Powdermaker became convinced that it was not possible to fully understand the repercussions of these films without being acquainted with the cultural setting ('the social-psychological milieu', Cherneff 1991: 431) in which they were produced. Powdermaker therefore opted to write an ethnography of the studios, including the 'movie makers' and the vast community that supported the Hollywood production system, with the ambitious idea of understanding Hollywood in relation to the 'dreams' it produces and their links with contemporary society. Her work describes the various professional figures who collaborate in creating a film, and the relations between these figures: this is basically an analysis of the social organisation of a production system, including the variables that influence the process, and the economic and power relations that governed the entertainment industry at the time. The main thesis in *The Dream Factory* is that these films reflect values that are engrained in the production processes themselves and that are consequentially imposed on audiences. (Powdermaker 1950: 3). Analysing the production context is thus inescapable if one wishes to understand the phenomenon of Hollywood as a whole. As has been noted by Jill Cherneff, *The Dream Factory* is not only the first ethnography of the film industry, but remained for quite some time the only one:

> Mass culture is our most socializing influence in the twentieth century, surpassing the Church and challenging the family and the state as a socializing force [...]. The Hollywood film industry is among the most powerful and dynamic of the institutions of this mass culture. Yet, anthropologists have rarely studied the film industry as an institution that affects social values and culture (Cherneff. 1991: 429).

A variety of reasons explain the lack of endorsement from the academic community for Powdermaker's work, first and foremost the somewhat limited nature of her text (it is worth stressing, however, that its immaturity is directly proportional to its pioneering nature). As maintained once again by Cherneff (1991: 433), in the first chapter of *The Dream Factory* Powdermaker goes to some effort to restrict the geographical extent of her investigation, while fully aware of the high degree of mobility of the artists, professionals and businessmen involved. This rather rigid 'classic' ethnographic methodology, applied to such an extraordinary contemporary context, should perhaps have been deeply revised. In Powdermaker's work, Hollywood is at times described according to the canons of classic ethnography – introducing its context, for example, by providing information on its topography, climate and inhabitants. In other passages instead, which break away from the ethnographic traditions then in force, Powdermaker replaces the concept of Hollywood as a region with a more engaging reflection on Hollywood as a society and as a symbol (Cherneff 1991: 433). The setting provided by her informal interviews, which is already strongly mediated in this research context, sometimes comes across as an obstacle, more than a means able to establish an adequate contact with her 'informers'. Within a social network that, as regards its more significant relational transactions, is built upon exclusion – or at the very least a severe restriction put on any subject

10 Ruth Benedict worked on the analytic reports drafted by military experts on twenty Japanese films (OFFICE OF STRATEGIC SERVICES, RESEARCH AND ANALYSIS BRANCH 1944) and discussed their context, plot, the role of the characters and the social conventions narrated in them, with her Japanese collaborators. It is not entirely clear whether this took place while watching the films with them or comparing their respective points of view on the content of the films after the fact (in any case, they did not discuss specifically visual aspects of the films: cf. Yoshihara 1999: 172). This work became one of the main tools for Benedict's collaboration with the American armed forces during the war, in particular with the OWI (Office of War Information) from 1943 to 1945, which later led to the famous essay *The Chrysanthemum and the Sword: Patterns of Japanese Culture* (Benedict 1946), which often refers to the films as sources of information and a means for investigating Japanese culture. As is well known, Bateson instead worked on the Nazi propaganda film *Hitlerjunge Quex: Ein Film vom Opfergeist der deutschen Jugend* (1933, Hans Steinhoff) and the analytic results of his work were included in Mead and Métraux (1953). For a recent study that contextualises Bateson's work in this area, see also Marabello (2018).

who has not been professionally 'initiated' (for example, through the decisions involved in production, or the many phases of the creative process) – a classical approach to participant observation that does not put into question its own methodological foundations appears today to be somewhat naïve. Some reviewers contested its partial lack of scientific criteria, in particular the excessive condescendence shown towards the anecdotes that make up the majority of the interviews. These anecdotes, that is, are not put into question, but acritically taken as primary sources, whereas their value as anecdotes and even the self-representations of the subjects themselves could have been critically deconstructed, eventually leading to further enquiry. The reviews of the book that appeared in 1950 were quick to trivialise its content, contributing considerably to a reading that produced the most severe attacks: «it makes Hollywood seem like just another tribe, worthy of an anthropological report» (Cherneff 1991: 432). The 'New York Times' defined the book as: «a report on a twelve-month expedition through the wilds of Hollywood» (Cherneff 1991: 432). A few more penetrating reviews dwelt instead on the strong protest witnessed in Hollywood when the book came out. What they noted was that the loopback between the results of the fieldwork and the reaction of the figures involved, who were no longer 'illiterate primitives', marked the birth of a '*new style* of anthropological fieldwork':[11] well before deconstructionism, well before James Clifford, post-colonial studies and the emancipation of anthropologies of the other, both Powdermaker's works and the debate they raised have much to say about this initial but significant loss of innocence in cultural anthropology.

Let us consider, within the complex structure of a film production team, the more limited case of the film composer and the group that collaborates in creating the soundtrack. One of the major objections that can legitimately be raised against contemporary film music criticism is that it has not fully freed itself from the myth of the composer, as portrayed by the industry. With respect to the aesthetic facts and musical culture to be interpreted, while still somehow imprisoned in the vast amount of anecdotes surrounding the composer, two main aspects of criticism appear to be lacking: distance and autonomy. An anecdotal perspective still seems to hold many texts, even academic ones, in its grip – the same anecdotes to which Powdermaker's detractors accused her of passively submitting, since the ethnography of her time had only begun to provide itself with more mature tools able to deconstruct the subjects' own *mise-en-scène*.[12] These anecdotal constructions are more often than not a product, a question of marketing: they are the only point of contact conceded to audiences, skilfully constructed by the agents' promotional (and self-promotional) apparatus, modelled around the target to whom the message is addressed. The myriad of sources available today – whether quotations of composers taken up by scholars, field interviews, handbooks for student composers or musicians' contributions to the meta-genre of the *making-of* – are all *mediatised writing*, with a strong *tendency towards apophthegmatic expression*. Here, the anecdote is at the service of the system's ideology, a *public communication of the role of the artist*, *branding*, construction and socialisation of the myth of the composer, in the shadow of a larger, ritual celebration of cinema, its products and the value of a given film, i.e. the 'magnificent machine' of the film industry). Quite frequently, for example, a composer's statements for the specialised press are aimed at construing the composer as a *problem solver*: in the ideology of production, those who are promoted are the ones who *ensure that the machine functions properly* and who guarantee that the entire process remains *fluid*, solving problems and treating the overwhelming difficulties in a given production – which are the norm – as creative possibilities. Naturally, it is not necessary for the subjects in question to personally subscribe to this ideology. On the contrary, an accurate analysis would show that this is a problematic issue, conflictual on a biographic level; their public communications, or the advertising involved in self-promoting their own role, however, are deeply affected by it. It is fairly common to note, for example,

11 The quotation taken from Cherneff (1991: 433) comes from Linton (1951).

12 I am referring, for example, to the work by Bateson and Mead, which was seminal in founding a new and more mature understanding of cultural anthropology and its use of visual means of research, i.e. *Balinese Character* (Bateson and Mead 1942) which, while dating to eight years earlier, does not seem to have influenced Powdermaker's 1950 study.

that the idea of the film composer (along with the orchestrators and the other members of the music department) as a problem solver is redundant enough in the sources for us to recognise a real work ethics/ideology within the production machine. Elsewhere, the composer may attempt to designate himself as a specialist in one genre or another; or, on the contrary, he may try to escape from a typecasting[13] that is ultimately dangerous for his career. Again, he may seek occasions for marketing, such as the imminent release of the soundtrack album or other events; at times, he may have to manage 'political' relations with studios, filmmakers[14] or his fellow composers, perhaps promoting a faithful collaborator who, for instance, passes from orchestration to composition.

When carrying out qualitative interviews with composers, it is therefore extremely difficult to liberate oneself from the framing inherent in the interview and the rules of its prescriptive *self-mise-en-scene*, following which the subject interprets their own status within the production system. It is only rarely possible, owing to the degree of privacy to which all of the more significant technical-creative phases of the process are legally bound, to engage in a type of traditional fieldwork based on participant observation. Even when the network of mediation has allowed for this sort of presence, the high number of processes taking place at the same time makes it impossible, practically speaking, for a single researcher to apply participant observation to the entire production and post-production process. The problem with research carried out 'at a distance', as noted in other terms by Benedict (1946) and later by Mead and Métraux (1953), is that in many media ethnographies it comes up against a structural limit; this problem remains surprisingly under-theorised from a methodological point of view.

Precisely with regard to these problematic aspects, the two works Robert Faulkner dedicated to Hollywood musicians seem to me, even today, to be particularly original. Here, I will concentrate on a few issues raised in the first of these two monographs, which discusses film composers (*Music on Demand*, 1983). For a lack of space, I will not dwell on his equally interesting work on the orchestras and musicians involved in recording film music (*Hollywood Studio Musicians*, 1971).

Faulkner, with his training as a sociologist, must certainly be recognised as the first researcher who attempted to describe the complex world of film composers from a sociological and ethnographic point of view. His study does not turn to participant observation but uses extended qualitative interviews with composers, whose anonymity he preserves. One of the strong points of Faulkner's approach is the role he gives to anecdotes as a source that, if correctly interpreted, helps shed light on the ethics of the small community of mainstream Hollywood composers' 'working constitution'. Although, as has been noted among others by Bates (2016: 113-114), not all of Faulkner's conclusions can be generalised and applied to other production contexts, his methodology, in particular his interpretation of anecdotes and his representation of the social network, can be illuminating for similar contexts (and proved to be so, in my personal experience in research on North American film and the production contexts of Italy). As Faulkner maintains, the stories told by protagonists, technicians and creative film artists are often built around examples and anecdotes that, upon being analysed, reveal a coherent thematic organisation. Within these communities, anecdotes take on more than one function. Firstly, they regulate the subject's position within the power relations that characterise the social network. Their task, which is not negligible, is to keep the subject's name alive within the community: the more effective the anecdote, the higher its chances of circulating from one person to the next – in the framework of a competitive environment and a struggle to gain hegemony within the relational network. On a deeper level, however, as mentioned above, anecdotes offer an excellent way to comprehend the ethics of a 'working constitution'. The way in which stories and examples are constructed and shared often serves to regulate the creative, deontological and behavioural boundaries of a given creative sub-community (e.g.

13 Typecasting indicates the tendency to identify a given composer as a specialist in a certain genre of films, giving them a label that while perhaps allowing them to rise more quickly if they are at the beginning of their career, also endangers their chances of reaching a more mature standing within the Hollywood film industry.

14 From here on, the term filmmakers globally indicates both the producers and the director, understood as those who have the most power in focusing the film music composer's work.

the sub-communities of technicians, Foley artists, orchestrators, composers, etc.). They set the limits within which a subject (or a professional sub-community) may legitimately act, defining the relations in which they are involved and meeting certain expectations, whose parameters are set by anecdotes. In Faulkner's words:

> These stories contain scenarios which help participants remember what filmmakers and composers experienced in the past. They facilitate filling in the gaps in their knowledge with educated guesses, and help predict what will occur in the future. Stories reassure the freelancer on the move that his image of himself as a freelance composer is shared by others. War stories and scenarios serve a means for regulating members of the occupation. [...] War stories are potent means for creating normative, instrumental, and effective commitment among the industry's labor force (Faulkner 1983: 166).

In all of the cases considered by Faulkner – and in many others I have attempted to examine myself during my research – anecdotes have the fundamental function of sharing, within a community, a series of recurring situations that a composer must face. Rationalising the setting, reducing a variety of situations to a limited number of cases, is a fundamental process used to create types, a sort of functional *self-ethnography* that, by creating a shared culture, suggests possible strategies for adaptation and relational behaviour. Moreover, the stories shared take on certain traits according to the sub-community in question. Directors share a vast amount of anecdotes on their relation with composers; orchestrators, in turn, share their own regarding a wide range of composers. Composers, or the members of the music department, are naturally not the only groups in which anecdotes serve these purposes. The following story comes from my research on Italian Foley artists, and concerns the work done on *L'eclisse*, 1962, by Michelangelo Antonioni. This is how Foley artist Italo Cameracanna recalls one particular episode:

> I had just started, and the film we were working on was *L'eclisse*, by Antonioni [1962]. It was Sunday, and we were preparing the room at International Recording. The film starts and we watch the first reel, with this beautiful sequence, very rarefied, with Monica Vitti who at a certain point, out of the silence, picks up a little wooden frame and puts it on the table. Renato [Marinelli] and I, on our table, had prepared all our objects and Renato, when the time came, picks up an object and puts it back down on the table. The recording stops, the light comes on and the assistant director walks into the room [omissis] and says: «Marinelli, how did you make that noise? You can tell it doesn't come from wood». So we stop everything and spend more than an hour looking for an object that would satisfy this assistant director for the wooden frame being set down. But everything we tried had something wrong with it, listen to this, listen to that, nothing was good enough. So the assistant director comes back into the room with a plank that was three metres long, saying we had to do the sound with this plank. I remember that Renato told him: «Listen, what do you expect us to do with this plank? How do you want us to put it down on the table? I mean, it doesn't make any sense. The frame she sets down is just a little square, it's tiny.» So the guy answers: «Yes, but at least this is made of wood!» So anyway, long story short, it's noon already, we'd only done a little bit of the first reel, and the technician says: Alright gentlemen, it's time for lunch, see you at two o'clock. Renato winks at me and says: «Grab our stuff, we're leaving». So I put the suitcases in our car, we leave and we don't come back. Renato gets a phone call at home, and he calmly explains to them: «You see, we can't keep working on the film like this, a whole shift for a little wooden frame, we can't work like that guy wants us to, we can't do the sound like that». So the moral of the story is that the producers convinced Renato to come back and work on the film, and yes, we came back, but that assistant director didn't set foot in that room ever again! (Meandri 2011: 207-208).

Compared to the methods used in creating sound effects at the time, the assistant director's requests seem particularly eccentric, but they also may very likely have come from the director himself. During those years, Antonioni was involved in a sound and audiovisual experimentation that began with *L'Avventura* (1960) and reached its most organic results in *L'Eclisse* (1962) and *Deserto Rosso* (1964). The tenuous and rarefied soundscape of these films was created through a skilful orchestration of the various elements found in the soundtrack – voices, noises, music. This composition, or this art of sounds – in which the images seem to emerge out of the soundscape, and the soundscape out of the world the images explore – reaches its peak in the famous finale of *L'Eclisse*, which has a *quasi*-documentary or observational quality and is at the same time densely subjective, and has been compared to an

orchestral composition.[15] As Maurizio Corbella argued when discussing *Deserto Rosso*, with an interpretation that is certainly valid for *L'Eclisse* as well:

> 'Traditional' musical syntax, whose calibrated tension had permeated classic narrative cinema, is completely excluded from this film, so much so that the acoustic events are transformed into phenomena to be observed (Corbella 2010: 167).[16]

Coming back to the story told by Italo Cameracanna I believe that the assistant director's requests perfectly reflected Antonioni's poetic research. In his intentions, clearly, each single sound that acts as punctuation in the rarefied opening sequence had to have a distinct material quality. Seen from the point of view of the Foley artists, however, the story shows the degree to which an audiovisual creation is defined through an encounter with a given practice, with which even the most refined artistry must negotiate. In Italy, as of the late 1940s, postproduction prior to the final transcription on the optical medium gradually passed to magnetic tape, which enormously facilitated the recording process. Before this period, however, sound recording was done on optical negative and editing on optical positive. The Foley artist saw the loop, prepared the effects and recorded them, only having the chance to make two takes, the second of which could be obtained by reversing the film negative. In rare cases where the two preceding takes failed and a third take was necessary, it was mandatory to load a new negative onto the optical camera, which made the cost rise considerably. Furthermore, the sound negative had to be developed in order to control the result. This means that, before the introduction of working practices involving magnetic tape, the artist-artisan in question had to create sound effects in real time, with an almost perfect synchronisation and without the possibility to monitor the work as it was being done. This technical tradition of the school of Foley artists was maintained even after the transition to magnetic tape. Even though it then became possible to record an indefinite number of new takes, by creating the effects in real time and only using a few takes it was still possible to save on the number of shifts required to finish the job: the skills honed in the optical era thus continued across an entire cycle of technological innovation, becoming a true tradition. Even today, one of the main criteria used in judging a Foley artists' talent is their ability to finish the reel with precision and with the lowest possible number of takes, the lowest number of secondary tracks and the least amount of post-synchronisation. The chances that a freelance artist would be called back for another production partially depended on their ability to work precisely and rapidly. The limitations imposed by optical audio and the rudimental means available at the time thus lie at the origin of the Italian school of Foley artists' repertory of techniques. On this matter, one might point out that the type of work proposed by Antonioni's assistant director, with few effects added during each shift, would have been advantageous in economic terms for the Foley artists, since it would have called for more shifts before all the reels of the film were completed. But tradition – and dignity, and professional deontology – prevailed over purely economic factors. The limited number of Foley artists, and their high degree of specialisation, meant that in this period they virtually held a monopoly. During the 1960s, these same conditions led them to form a true cartel, whose negotiating power was enormous at the time (much greater than in post-production today, which sees many more freelance professionals working in sound effects than in the past), and anecdotes, shared among the workers and known by all, established the limits within which one could bow to directors' requests and the terms within which their own creative autonomy and professionalism could be or had to be defended.

Many more examples could be mentioned. A very well-known director, whose name I will omit, asked the production to prepare a swimming pool where, according to him, Foley artist Renato Marinelli would create the sound effects for a character seen swimming in one scene of the film, Marinelli would thus swim himself, to obtain – according to the director's beliefs

15 Cf. Pusateri (2019: 34). On audiovisual construction in Antonioni see also Calabretto (2012).
16 Corbella (2010: 167) [my translation].

– greater 'realism' in the sound. Marinelli categorically refused: to create the aquatic effects he would use the same method as always, involving one or more basins full of water, creating the effects with his hands, as is habitual still today for footsteps and bodies (human or animal) or objects that move on or underwater. This refusal, naturally, is not to be understood as a lack of willingness to compromise. In cases in which a director has knowledge of and respect for traditional practice, the ideas exchanged with sound effect artists can be deeply engaging. This is Italo Cameracanna, on the 'silence' desired by Pasolini:

> For *Uccellacci e Uccellini* [1666], Pasolini himself chose the place where we would record the silence and the air he wanted for his film. He said to Renato: «If you go to the Appian Way, you will find true silence, the silence I'm interested in». He knew these places well, because he used to go for long walks there. So, Renato and I went there: it was the open countryside, extremely silent, with no trees, very barren, and with a very particular sound. It was an open environment, but very silent, far from the city. There were no birds because there were no trees, it was all covered in meadows, so you could hear this silence that was full of living sound. Renato and I went back to the Appian Way because we noticed that in that silence, trains went by on the railway. So we went back and took our Nagra to record the ambient sounds with the trains in the distance, it was very beautiful (Meandri 2011: 197).

Having briefly dealt with the problem of anecdotes and their functions, I would now like to go back to North America and discuss what I believe to be a second great merit of Faulkner's work, i.e. the first attempt to ethnographically describe the so-called 'starting lines' of Hollywood's music industry in the 1970s and the 1980s, including the production system and the ideology that governs it, as well as the mechanisms through which composers are selected and survive within a freelance system. As Faulkner maintains: «careers are not made overnight. They are slow accumulations of credits» (Faulkner 1983: 66). Ethnographic enquiry is essential in order to explain this complex interweaving of credits and relations, which are the truly hidden part of the system. In his view, this is also necessary in order to compensate for something we briefly touched on in the examples given above, that is, social actors' tendency to be reticent when providing information about the fundamental patterns that allow professionals to gain access to and persist in the professional network.

Let us consider one traditional starting line, i.e. television series.[17] In the 1970s and the 1980s, television series production was in any case one of the most important breeding grounds for future mainstream composers. This is how Faulkner describes the mechanisms involved:

> Series composers find themselves hemmed in with too little time and too much music to write. Episodes to be scored start arriving late from the editors; the producer and director decide the dailies are awful, recut many scenes, call the composer and ask him to rescore some of the work he has already done; work piles up, pressure mounts, good will evaporates. Pressed by these exigencies, the freelancer does what he can in a craftsmanlike and professional way, but as deadlines tighten around him, he turns to his network of colleagues (Faulkner 1983: 52-53).

The composer hired for the job could thus recruit, within the network, younger colleagues with little production experience. According to the ethnographic evidence gathered by Faulkner, amply confirmed by my own research, the latter must generally show that they are able to work coherently with the materials chosen by the composer hired for the job. If this expectation is satisfied, the aspiring composer is guaranteed the chance to establish an ongoing relation with both the main composer and the filmmakers. This initial experience may be felt as extremely restrictive and is indeed a delicate moment: with every new step, the conflict between the system's idiomatic requirements and the beginner's need to construct a recognisable style of their own will never be entirely resolved. The way in which the beginner handles this conflict may be the key factor that determines whether or not he/she will remain within the system. After passing from this series, for which he/she is now responsible, to a more important one, and from here to a film production, having to cope with tight deadlines and hoping to obtain other commissions, this musician will often in turn

17 In today's scenario, we should probably mention a few other equally plausible starting lines, already present in the 1970s and the 1980s but now much more developed, such as trailer music, advertising and the increasingly significant sector of music for videogames, on which we shall not currently dwell.

recruit another colleague into the network, a co-composer he/she can rely on. From an ethnographic point of view, the recruitment system is regulated by a chain of recommendation. The beginner, promoted by circumstances and soon becoming a sponsor, generally chooses a flexible subject who is quick to adapt to linguistic conventions (these same characteristics also govern the relationship between the composer and the other members of the music team, such as his/her relationship with the orchestrator). The amount of time that the sponsor must dedicate to training the beginner is a decisive factor in defining how long the new collaborator will remain in the system: a highly adaptable beginner who rapidly complies with the composer's style will require the sponsor to make less corrections to their cues, making it more likely that bonds will be formed between the sponsor and the beginner, leading to further collaboration.[18] Naturally, the social/creative initiation implied by their role and the limits set on their creative autonomy will be felt by the beginner, becoming a source of considerable tension. Most of the thematic material on which the newcomer has to work is taken, in the case of a series, from cues composed previously by the higher-ranking composer. The beginner is generally encouraged by the composer to maintain the highest possible consistency in the dramaturgical and stylistic treatment of this material. In the case of trailer music production – another possible starting line for film composers – the same idiomatic requirements are generally imposed by the owners of the company, senior composers and the rigid conventions that dominate trailer dramaturgy: formulas and clichés, which the young composer must rapidly assimilate and reproduce. If the aspiring composer succeeds in remaining within the system – we might imagine them working on a hypothetical television series – it is likely that sooner or later the senior composer will make progress in their own career and move on to larger projects. As of the moment in which the beginner has been promoted and is now a sponsor and mentor, the composer can start taking decisions that gradually introduce their own dramaturgical taste, within the strict linguistic conventions imposed by the medium and by filmmakers, who, as a rule, prefer to solve similar dramaturgical problems with habitual and time-tried solutions. The example briefly put forward here is essential in order to understand, *in its power structure*, the origin of the conformism and conventionality of mainstream musical-filmic language, its formulaic nature and the function of clichés in guaranteeing the system's coherence. As mentioned above, the composer's personal autonomy and stylistic integrity, even while broadening the number of their collaborations and hopefully obtaining new commissions, will constantly have to deal with the medium's rigid linguistic conventions. As I have attempted to demonstrate elsewhere (Meandri 2014), the movement that propagates outwards from the centre of the recruitment network is essentially responsible for the genre's higher or lower linguistic inertia, and this perspective is crucial for an ethnomusicological comprehension of this productive system. According to Faulkner, the centre of the matrix – 'Big Hollywood', i.e. the network of the most influential and visible composers – can be ethnographically described as the 'tangible social structure determined by the crystallization of recurrent ties between filmmakers and composers' (Faulkner 1983: 193). In a dominant position, the composer develops a combination of *strong ties* (recurrent ties) and *weak ties* (non-recurrent ties on a multiple relational chain), i.e. ties with many different filmmakers.[19] This position, ideal within the matrix of relations, protects the composer from the fate met with by any single film or the success of any single filmmaker. Ties with different producers and directors protect the composer from the risk of typecasting, giving him a creative autonomy that, even while respecting the medium's rigid requirements as to idioms, genres and musical formulas, could not exist at the fringes of the system. On the one hand, the mainstream's strongly conservative outlook is engrained in the social structure and production ideology that organises the system. On the other, and this is where I have tried to integrate Faulkner's

18 Clearly, this general case does not imply that significant exceptions to the rule do not exist, for example, a director at the beginning of their career or even a successful one may choose a composer who has no prior experience in the mainstream and who precisely for this reason may conceive their score in an unidiomatic way.

19 These concepts are stated by Faulkner (1983). Some sentences from the preceding paragraph of this chapter, while modified, come from Meandri (2012: 67-68) and Meandri (2014).

thesis, the medium's highly formulaic attitude and the prescriptive nature of musical-filmic dramaturgy reinforce the matrix; the latter being the chain of sponsorship and recruitment that governs the entire network, from the fringe to the centre, following the directions in which the relations of power and influence that support the social structure are propagated. From an ethnomusicological point of view, that is, it is possible to grasp, as both an aesthetics and a *social structure*, the close continuity in musical-filmic stylistic traits and the origin of the system of formulas and clichés that characterises the production framework of contemporary North American cinema.

Oral accounts and production processes in the work of Italian Foley artists

In this paragraph I would like to briefly discuss the context of my research on Italian Foley artists. I will firstly provide a rapid overview of the production process, followed by some more general remarks concerning methodology.

At the time referred to in the anecdote that mentioned *L'Eclisse*, Foley artists were employed exclusively for Foley stage sounds. This photograph of Renato Marinelli, master Italian Foley artist, captures the process well.

Figure 1. Renato Marinelli (left) on the main recording stage at International Recording, ca. 1961-62. Marinelli Effetti Sonori (courtesy of Marco and Massimo Marinelli). At the centre, editor Enzo Alabiso. The woman can plausibly be identified as singer Lara Saint Paul.

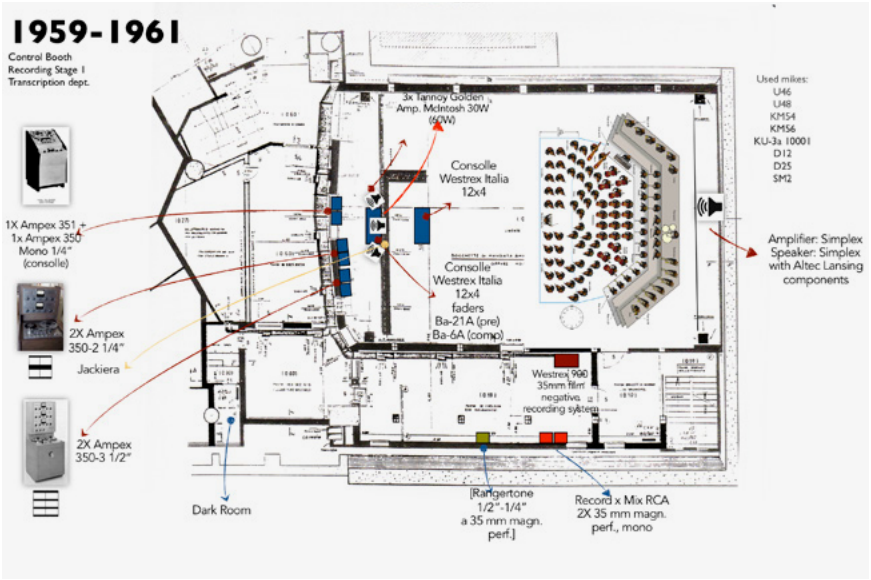

Figure 2. Original plan of the music control room and orchestral recording studio at International Recording. Reconstruction, based on oral sources and documentary evidence, of the position of the equipment, represented by rectangles in different colours. Source: Meandri (2016a: 449. Source of the original plan: International Recording Archive, courtesy of Paolo Biondo).

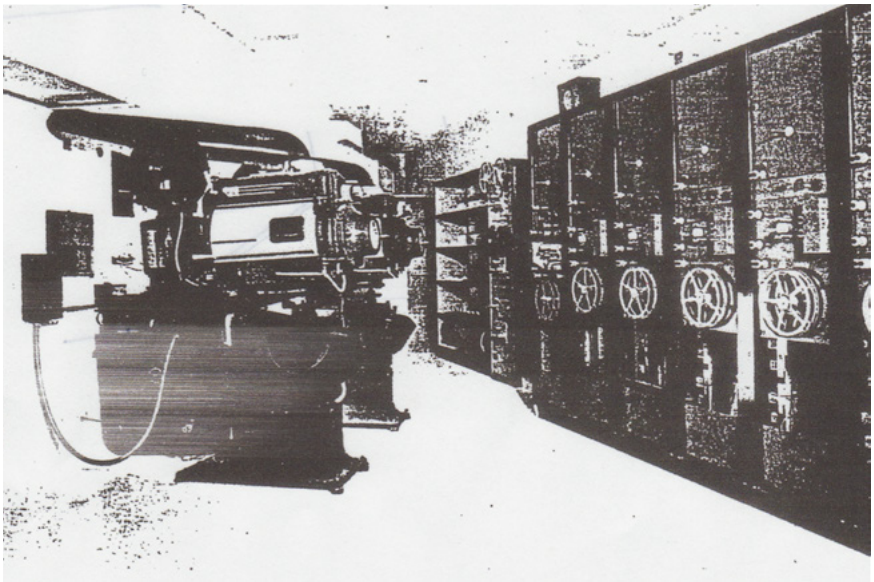

Figure 3. The projection booth at International Recording in a photo dating to 1959. Source: Meandri (2013: 45). Original source: International Recording Archive, courtesy of Paolo Biondo.

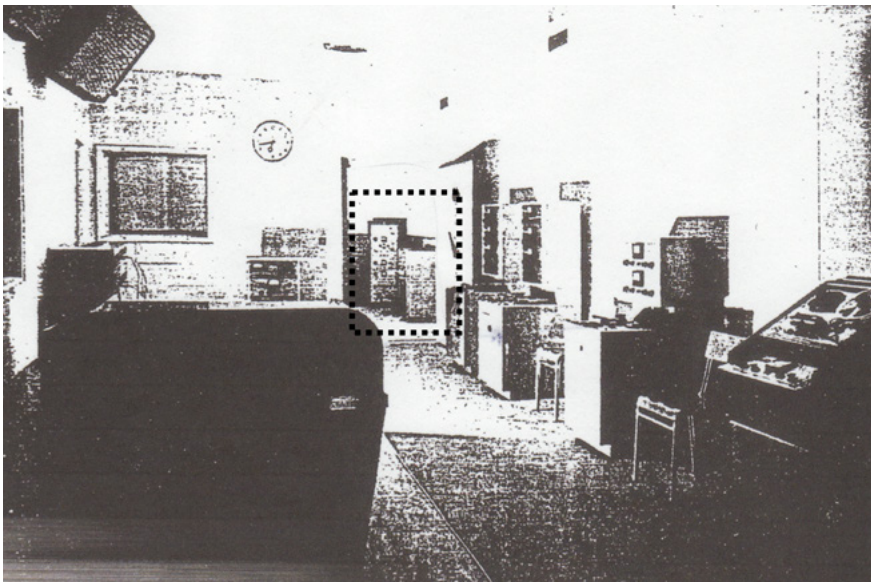

Figure 4 The music control room at International Recording in a photo taken a few weeks before the facility was inaugurated in 1959. The 1-, 2- and 3-track Ampex used during the facility's first operating period can be identified. Source: Meandri (2013: 33). Original source: International Recording Archive, courtesy of Paolo Biondo.

Documents, interpreted by oral sources, allowed me to accurately reconstruct International Recording's technological equipment during the 1950s and the 1960, along with the main cycles of technological innovation from the time when the facility opened to the digitalisation of post-production processes. Given that providing a detailed discussion of each piece's cycle of innovation would be extremely complex, at present I will offer no more than a 'static' snapshot of the equipment used in the early 1960s. The image reproduced in Figure 3, taken a few weeks before inauguration, shows International Recording's projection booth. The projectors are two ICP Simplex models. Only partially visible on the right are the twelve records for 35mm perforated magnetic tape – RCA make, Film Phonograph model – to which two optical heads, not visible in this image, must be added.

In Figure 4 we see the control room for music recording, located under the projection booth. It contains two mono Ampex models, two 2-track Ampex 351 models and two 3-track Ampex 351 models on ½-inch tape. The control room console was a 12-channel produced by Westrex Italia. According to several sources, this was the first fader console installed in an Italian studio. A mechanical system of wires, moved by the fader, acted upon a Deven potentiometer, already in use in the RCA consoles. The preamplifiers, compressors and filters were manufactured entirely by RCA: BA-21A preamps, BA-23A amplifiers, and BA6 compressors. The control room speakers were three Tannoy Golden models arranged in a horseshoe formation around the console, amplified by three McIntosh 35W. We can glimpse (highlighted in the dotted box) the electronics of the optical sound-on-film recorder, a variable-area RCA Photophone – galvanometer system.

The transcription department included a 35mm record with a ¼-inch tape player for transcribing direct sound recordings. According to Alberto Sbroscia, former technical director of International Recording, this machine was locally assembled with electronics from Perfectone which could read the pilot frequency of the ¼-inch tapes – such as, from 1961, the Nagra with Neopilot sync. Technical details apart, it was through this machine that ambient sounds and special sound effects were processed. Transcribed onto 35mm perforated magnetic tape, the special sound effects – such as a passing car or a gunshot, in other words, effects requiring precise synchronisation, were synchronised in Moviola. The high-cost tapes required the use of static-magnetic junctions, i.e. the insertion of a given length of 35mm placeholder film (termed 'static' in Italian procedure) where there were no effects. Of particular interest is the fact that in the most refined establishments, or in large-scale projects or highly rarefied soundscapes – the rarefied soundtracks of an Antonioni again come to mind – the reel was not joined to

static film, but to pre-recorded magnetic tape, to prevent the hissing of the tape from being suddenly silenced in the static segments. This use of blank-recorded tape evens out and masks the background noise caused by magnetic recording: noise has aesthetic value, confirming the insight of those who rightly argue that during restoration, noise and the remediation chain which produced it should be treated with care. Following Moviola synchronisation, the reel was mounted on the tape heads for the sound effects pre-mix, which was done reel by reel. With rare exceptions, ambient sounds did not require precise synchronisation and were organised and loaded in loops on the tape heads, supported by specially constructed loop-holders. The premix output was recorded on 35mm records located in the transcription department. The reels containing effects, dialogue and music premixes – I will not discuss the last two here – were then in turn loaded on to the tape heads for the final mix, whose output was always recorded on RCA mono records, then transcribed on 35mm film negative, i.e. the final phase of postproduction – *optical transcription* – which was done using an *optical recorder*, and was followed, generally at the facility where the photo negative was printed, by the phase in which images and sound were coordinated and, still later, a quality control carried out by the postproduction facility, which if passed meant that the soundtrack was officially completed.[20] The facility's initial entire set of equipment has been reconstructed in the diagram seen in Figure 2. The instruments in this setting, however, had rather short lives and, as mentioned earlier, the diagram represents the setting in the first few months in which the facility operated (late 1959 – early 1960).

Let us now consider the work of the Foley artist within the postproduction process as briefly described above. During these years, the recording stage of a postproduction facility was used for various purposes: one shift might see a singer recording with a group (Mina, for example, recorded her most well-known songs in this hall), while the next might be dedicated to an orchestra recording film music; the stage might be used for mixing a film (on these occasions, a mobile Westrex mixing console was brought to the centre of the room), and during yet another shift Foley artists might record here. Generally, they used smaller rooms, such as the ones located in the basement of the facility and also used for dubbing, but, if required, all these activities could also take place in the large room, i.e. the recording stage suitable for recording ensembles or orchestras. In its golden years, a postproduction facility worked around the clock, with the first shifts beginning at dawn and the last ending late at night. Foley artists, hired as freelance artists by the production, would enter the studio with suitcases containing equipment for the effects, such as the ones seen in Figure 1. These were artisans who mostly invented their techniques on the job, passing them down from father to son; they belonged to the urban working class in post-war Rome. Some Foley artists began, for instance, as *cascatori* (i.e. 'fallers', or stuntmen) hired by productions from among the humblest classes on the outskirts of the city. It was in this period that the image of the Foley artist as a magician of sound effects was born, and in fact they really were magicians: the legendary pioneers of Italian Foley managed to produce everything from nothing. In the reconstruction on which we are currently working, a fork on a metal sheet was enough to produce any creaking sound, a hand swept over sand to simulate a hydrant, shaking a box of rocks stood in for the sound of a carriage, a chain drawn over a sword for an anchor cast from a ship, and the legendary coconut shells for horses' footfalls. Not many years later, starting at around 1965, the Foley artists established their own studios[21] and the sound effects were no longer carried around in suitcases but stacked on the shelves and closets found in and around a modern sound effects studio, such as the one seen in Figure 5. A Foley room can easily contain thousands of tools for producing these effects, which are largely obtained by using commonplace objects collected over many years. In the mid-1960s when independent establishments took root, large sound postproduction facilities, such as Fono Roma, International Recording etc., continued seeing to the more delicate phases of the postproduction cycle (music recording, dubbing and ADR, mixing, producing the masters and, lastly, transcribing the mix onto film

20 Some of the information on postproduction processes and the images reproduced here have been published previously, in Meandri (2013) and in Meandri (2016a).

21 One of the first was the SES (Sound Effects Synchronization) established by Renato Marinelli and Tonino Caciuottolo.

negative) while outsourcing the creation of the entire sound effect tracks[22] to the newly created Foley companies. The latter had smaller studios that contained at least an effects room, tape recorders and a series of Moviola rooms for synchronising the sound effects. Prior to this phase, as mentioned above, Foley artists were hired as part of the sound postproduction team only for creating Foley stage sounds, but from this point on the new companies were also entrusted with other processes in sound editing, including 'special sound effects' and 'ambient sounds'. Effects such as gunshots, cars, airplanes, bombs, and so on, required field recordings or previously recorded sounds taken from a sound effects archive and an accurate synchronisation at the editing machine. These effects were given the working definition of *special sound effects*. In a similar way environmental background sounds, recorded in-the-field, (e.g. *Milan traffic*, *farm ambient, hospital ambient* or *museum ambient* etc.) were given the working definition of ambient sounds.[23] The latter generally did not require moviola synchronisation. This professional specialisation persists in current practice: still today, the work involved in constructing the sound effect track is divided between specialised Foley artists who are responsible for Foley stage sounds (the Foley artist in the strict sense of the term), and editors who are instead specialised in *ambient sounds* and *special effects*.

I have dedicated a series of publications to each sub-process briefly mentioned above: in particular, the history of International Recording (Meandri 2013), the technological setting, the production processes and the changes witnessed in processes and technologies over time (2016a), an archaeology of technique carried out through an analysis of one of the most delicate phases, i.e. optical transcription (2015), the debate concerning sound that took place in Italy in the 1950s and 1960s and the acoustics of cinema theatres (2016b) and the instruments and techniques of the Foley artists' work (Meandri, et al. 2019).

Rather than summarising my results to date, given that they have already been published, in my last paragraph I would like to work towards my conclusions, reflecting on a few crucial issues that surfaced both during my work on Hollywood composers and during my research on Italian Foley artists.

Figure 5. A present-day Foley stage (in Italian: *sala rumori*, Roma, Marinelli Effetti Sonori s.r.l.).
At the centre: Foley Enzo Diliberto executing footsteps on snow.

22 In the case, for example, of an Italian film with direct sound recording, the international track was, and is still today, created from scratch as an effect track, which later makes up, along with the music, the ME (music and effects) track, created for the purpose of dubbing the film in other languages. In the inverse process, i.e. dubbing a foreign film in Italian, it is necessary to create the so-called *integrations* for the original soundtrack, that is, redoing part of the effects track in passages where the directly recorded track is 'tarnished' by the voices in the film or where, in case a ME track is present, some effects are lacking.

23 This description of the differentiation between types of sound effects, modified here comes from Meandri (2019).

From case studies to methodological concerns (and back)

The need for methodological eclecticism, teamwork and the insufficiency of multi-situated participant observation

As can be inferred from the complexity of the film production processes outlined above, it would be very difficult to engage in an ethnographic observation of the film production process as a whole: in the sound department alone, dozens of parallel processes are underway at the same time. Unless the work is carried out by a team of researchers doing fieldwork – which is plausible, but not easy to implement, at least in Italy, where not many resources are available to research – it would necessarily have to be done in a number of locations and over some years, so as to arrive at a comparison between working methods in a range of facilities and various groups of professionals. Furthermore, the locations in which film postproduction processes take shape have differing and peculiar characteristics. There are smaller facilities, such as Foley artists' studios, which were created by the professionals themselves and remain closely tied to them. Other locations are completely different, such as the large postproduction facilities, which on the one hand have a stably employed staff – including technical directors, mixers and the administrators in charge of managing them – but on the other are essentially places through which professionals temporarily pass to complete a single film. The impression one has while following a film along its path through the facility is similar to the well-known philosophical paradox of the observer who attempts to describe a battle from inside. The feeling often arises that the key creative processes take place elsewhere. But even the idea of monographically following the creation of a single film – which is theoretically plausible, because all those involved in a film know that each film is a work unto itself – does not provide a solution for this complexity. This is because it is equally true that the idiosyncratic work done on a film is not isolated and thus encounters, in any case, working procedures that level out this idiosyncrasy, relating it to a norm. One must also note that contemporary ethnographic works expressly dedicated to popular music recording studios tend to display a methodological eclecticism, thanks to which the research is very rarely limited to the studio. In the weighty volume by Elliot Bates (2016) dedicated to recording studios in Istanbul, for example, the events and the relations that take place at the same time in the IMÇ studios in Unkapanı are read through the lens of analyses covering a notable geographical area and a considerable amount of time: from the first expeditions of folklorists in rural Anatolia, to the fundamental ideological unification provided by the thought of Ziya Gökalp, a consideration of the role played by the process of Turkification of folklore Institutes (to which even Bartók and to some degree Picken turned to support their research), to the way in which the musical sources (*derleme*) were historically produced, falsified and turned into cultural heritage. This historical-critical inquiry allows Bates to propose a 'thick interpretation' of the facts observed; *studio practices* thus become a synthesis, a preferential point of observation for embedded cultural phenomena whose origins and effects lie elsewhere: an *aleph*, in Borges' sense, crossed by the many hermeneutic vanishing points of a complex universe.

Let us return to the two cases of Italian Foley artists and North American composers. The latter certainly do not belong to a guild having the same decision-making power as Italian Foley artists: in this case, the direction followed by creative decision-making power is decidedly inverted, to the detriment of the composer. Here, an aspiring composer who wishes to show off his skills and originality by writing a highly personal soundtrack almost inevitably runs into a great deal of pressure and resistance coming from the world of filmmakers, first and foremost producers and directors. As mentioned above, the latter indeed prefer to solve the problems habitually involved in the interaction between music and images with conservative means. Other types of forces also compel our composer to be conservative: for example, problems can be raised by orchestras themselves, given that they are socially complex organisms that may have a conflictual relation with the composer's creative world. Recording ten minutes of orchestral music for a film that respects the standards used in the genre and is thus 'habitual', as regards its technical and stylistic complexity, has a given cost and an expected

outcome, and thus represents a calculated risk, so to speak; recording ten minutes of orchestral music that goes beyond these standards doubles the cost and exponentially reduces the quality of the result. This puts our composer at great risk and may even not bode well for his chances to remain within the 'system'. The latter therefore has to comply with a range of expectations, in terms of stylistic features and habits, that is, in terms of language. I believe that one of the specific features of an ethnographic approach to production processes is that it is able to describe these creative processes, and this language, in terms of power, conflict and creative cooperation. The sheer number of people at work in film processes is remarkable, and a thick description of such a complex creative process, such as the one underlying a film, can certainly only be given by constantly changing the angle from which one follows and describes the same phenomenon.

The insufficiency (or under-theorisation of problematic aspects) of traditional qualitative interviews in relation to the mnemic qualities of the professionals involved

In my research experience, I have learned over time to pursue different strategies while eliciting oral accounts from informers according to their duties, because their memories are structured differently in relation to their specialisations.[24] A facility's technicians, technical directors and maintenance personnel tend to identify (or recall) a piece of equipment visually, beginning with its internal electronic components. During the interviews, for example, Alberto Sbroscia, technical director at International Recording, immediately recalled the 12AX7, 12AU7 electron valves, which along with the 12AT7 and 6X4 valves compose the electronics of mod. 351 Ampex. Scoring mixer Federico Savina, while maintaining how difficult it was to reliably identify the Ampex models located in the music control room, supported his memory with procedural details that, as became quite clear, emerge when mimicking the habitual movements used at the controls of the device: a kinetic-procedural memory, more than a visual one, was in this case what guided the identification of the device. Federico had a detailed recollection of the diverse procedures he followed while recording with the machines. On the 2-track Ampex, for example, one first had to press the play button on the transport cluster (button S505, which when pressed sets the reels in motion) and then the record buttons (S6) on the respective electronic assembly front panels, an operation done by extending the thumb and ring finger of one hand to press the buttons found 7 inches from one another; once pressed, these buttons give electric current to the bias oscillator. Comparing it with the Ampex instruction manuals, this operation clearly identifies mod. 350-2 or 351-2, whose electronics were vertically assembled above the transport section, that is, in one of the classic assemblies of a 2-track Ampex. And yet, with the 3-track devices, according to Savina, a single record button, protected by a latch, allowed all of the electronics to record at the same time. In this case, the devices were plausibly Ampex 300-3s, whose electronics could be put in record mode in two ways: using the record button S6, as above, or using the record button S804, which begins recording after pushing the play and record buttons one after another on the transport control cluster, here found to the right. Significantly, this procedure can only involve the so-called solid state models (for example, the AG 440 with transistor electronics), which introduce a Record Selector on the front of the electronics, which can be set on Ready (for the channels to record on) or Safe (for the channels not to record on) or Sel-Sync[25] (uses the recording head as a playback head). The front of the recording electronics of mod. 350 and 351 is visually identical, except for a hole located under the input switch, a feature only found on the front of mod. 351. Visually recognising the models, solely based on an archival image of the facility, is therefore not possible without the aid of oral sources. This greater tendency towards a kinetic-proce-

24 Even though I have consulted many cases, their number is never large enough to be able to generalise these reflections, which would have to be confirmed or rejected by a broader study.

25 In the vocabulary used by Ampex, *sel-sync* is a synonym of 'Selective Synchronous'. The term *sel-sync* can also however be found in other brands of technology of the time. For further details, see Meandri (2013: 64ss.).

dural memory is shared by dubbing mixers. For example, during a meeting with Federico Savina and dubbing mixer Fausto Ancillai, when recalling the details of a notorious sequence of *C'era una volta il West* (*Once Upon a Time in the West,* 1968, Sergio Leone), Ancillai mimicked the movements of the console faders on the sequence (an audio-tactile attitude guides in this case the gradual resurfacing of a memory). Also, years later, for particularly important works tried time and again, it is not unusual for many sequences to remain 'haptically' vivid in the dubbing mixer's memory. Before the introduction of automation, the dubbing mixer's peculiarities lay in their ability to memorise the fader movements and exactly reproduce them, reel by reel, at each dubbing passage. This detail is pivotal from the methodological standpoint: conversing with a sound technician, especially a mixer or a Foley, may potentially benefit research tools designed so as to recognise and promote this mnemic quality.

The context provided by recording studios and film post-production industries therefore allows us to deploy an eclectic methodology, in which work done on oral memories can stand alongside archival research or analysis of the historical 'strata' in technological devices, whether analogical or digital. No type of source must necessarily be given priority or treated autonomously; on the contrary, different kinds of sources may cast light on one another and turn out to be complementary in order to correctly reconstruct production practices. As I have attempted to briefly illustrate in this paragraph, analysing visual documents may call up 'haptic' memories, which in turn lead to the emergence of oral memories. Again, a rudimental historical analysis that reveals a device's progressive modifications (which always indicate changes in its concrete use) can act as a trigger for oral memories which subsequently allow us to carry out 'archaeological' research more thoroughly. The intertwining that may arise out of these complementary paths is decidedly complex. Certainly, we could classify these cases among techniques in oral memory elicitation, which are well-known in ethnography – in this sense, we might mention the Colliers' work on photographs (Collier and Collier 1986). It is also clear that research based on interactions between oral, iconographic and written sources is nothing new in ethnomusicology, ethno-organology or diachronic anthropology. And yet, extending this field of research to sources whose nature varies remarkably (encompassing, for example, circuit diagrams and at times the need to do reverse engineering on circuits and on the modifications affecting the devices) would require an additional, specific theoretical-methodological reflection.

Sonic meaning as an emergent quality; again (and always) on the insufficiency of logos and the need for comparison

The leading male actor takes a series of footsteps, highly stereotypical and, since the 1960s, with not much change over time, whose sound must be created at the same time as the noise made by his clothes, in line with a general stereotypical construction of the sonic quality of 'maleness' that varies with different film genres. Some studios gave names to these effects, for example the 'Mastroianni footstep', a type of footstep created to give sound to the footsteps of Marcello Mastroianni but later reused, still today, for many leading male actors; the *peplum* genre or the *cappa e spada* (cloak and dagger) genre had their own sonic traits; or again, the 'villain' generally has some recurring sonic features, such as leather shoes that emphasise sinister twisting noises (with a way of walking that is apparently typical of 'bad guys'). Even today, there are no female Foley artists in Italy, and therefore female characters are always interpreted by men, according to an equally stereotypical sonic encoding. The order in which the elements are put is also, from a sonic point of view, firmly hierarchical, leading to practices that have remained in the digital age: the first track is generally for the leading male actor, the second is for the female protagonist and the following tracks are reserved for secondary actors. In the field of ambient or special effects as well, the sounds are put together by reusing pre-existing materials. For example, the wind in Giuseppe Tornatore's films is generally obtained from recordings that mix winds recorded with more modern devices together with the extremely iconic winds used for Sergio Leone's films. Many more examples could be mentioned, but what I would like to highlight here is the fact that, given that only a few studios and families were (and are) responsible for the great majority of films produced in Italy, a fairly

restricted group of artists made a considerable contribution to the sonic encoding of the film and television products seen and heard by millions of people in Italy. Seen from this point of view, an ethnographic and ethnomusicological approach to professions involving film sound may become even more significant. The construction of male and female in sound, mentioned above, or the stereotypical repetition, reuse and construction of effects are guided, in the artists' intentions, by the principles of 'realism' and 'transparency'. And yet, as has been demonstrated in other studies – not necessarily ethnographically conceived, such as the work by James Lastra (2000) on sound technologies in the early years of North American film sound – any notion of realism is caught up in the medium's linguistically constructed nature, and is thus culturally determined by sound artefacts (an issue to which research in ethnomusicology or anthropology of sound has given little attention until now). The principles that guide the construction of this 'real', particularly in Italian cinema, include a marked tendency towards hyperacusis: 'the world resounds', in Foley artists' creations, much more intensely than in films with direct sound recording[26] (which, naturally, also have a constructed nature, based, however, on different aesthetic and linguistic principles). The 'world resounds', furthermore, by condensing something more than the real into sound, that is, 'a will that is announced in sound'.[27] A sound effect, such as an explosion, can be assembled from many different effects layered on top of one another, including animal sounds, roars, etc. The prototype for this semantic thickening is perhaps Tarzan's cry, whose patent was the object of a long dispute, since the sound technicians at MGM Studios altered Weissmuller's voice, adding a series of animal sounds and turning this effect, as is often the case, into an *unheimlich*, perturbing object. Even the most apparently neutral effect, however, has always been subjected to a more or less deep process of layering. I once witnessed work being done on a TV series in which sound had to be added to a scene with a daughter visiting her father in an intensive care unit. The young sound technician entrusted with the ambient sounds had indeed used an intensive care unit hospital ambient – a classic 'hospital air'.[28] A Foley with more expertise later corrected his work, reminding him that for dramatic purposes, the sound had to be more intimate: the 'realistic' ambient, treated by the young technician as if it were a medical drama, had to be replaced with an ambient sound more focused on the characters' inner feelings: the intensive care ward had to seem like a suspended place with an almost religious silence, in which the *air* had to contribute to the psychological portrayal of the two characters, who met on the border between life and death. The expert Foley instinctively selected, after searching among the materials in the archive, a series of *museum-airs*, and recreated the scene with the ambient air from a natural science museum. One can never take for granted, therefore, an exact correspondence between a sound effect and a setting, and every aesthetic choice can be given a thick description that is always culturally pertinent.

Taking another glance at the anecdote quoted above regarding *L'Eclisse*, or, again, the episode just mentioned involving *museum air*, what we are dealing with are cases in which, either through qualitative interviews or through participant observation, it is possible to bring a semantics to light, a semantics that is, however, an emergent, non-autonomous quality of the sound materials used. In most cases 'textual' analysis alone cannot fully reveal the logic underlying audiovisual composition, nor is participant observation always able to grasp the subtle reasoning behind a choice in editing, above all when everything is going smoothly – that is in the vast majority of cases where explicit verbalisations between Foley artists as to the best solution to be adopted do not take place. Certainly, I can ask the Foley artist why, at

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26 This intensity in creating the effects track, as it emerges from the work of the Foley artists, is often balanced with the dubbing. Sounds must be created with a certain intensity in order to resist, so to speak, the gate keeping of the dubbing; this is one of the reasons why the Foley artist's track comes across as 'hyperacoustic', and with high volume. And yet, this technical note does not entirely explain the aesthetic choices made in practice: a sort of local and secular 'animism' survives in Foley artists' work, which at times is illuminated by beliefs, which are quite difficult to comprehend, as to the nature and expressiveness of sounds.

27 I have taken this expression, knowingly altering it, from Piana (1991:87). The original phrase is: «Hearing does not therefore come to a stop with sound, but lets go its grasp on it so as to activate the functions that immediately reach out to grasp the thing that is announced in the sound» (my translation).

28 *Aria* is a general term (also used in the recording industry, but with a different meaning) that for Foley artists indicates, in internal settings, the recording of a setting that brings out its ambience, reverberation, reflections and spatiality.

the moment when a scene shows the walls of a castle, the sound of crows has been inserted. If the researcher is lucky, he/she will receive an explicit answer, i.e. this is always done, to suggest a presence high in the air and increase the depth of field of the scene. If a detailed audiovisual analysis is able to collect a number of similar scenes, taken from a rather large filmography, by analysing a seemingly secondary material one can note that, quite often, ravens and crows are heard when a castle is shown. Thus, some constant elements do exist in the *decoupage* and also in the treatment of sound and can be investigated through a mixed method: participant observation, analysis of textual recurrences and qualitative interviews. Questions on more specific aspects, however, may not receive an answer – as is well known by anyone who has done research with traditional musicians – or may come up against statements that are *per se* perfectly coherent, such as 'that's how we do things because that's how things are done' or 'because that's how they've always been done', but which only partially meet our need for a 'thick' and truly dialogical description. Most of the choices made by Foley artists, at least within my experience in research on film sound, are too elusive to be given a shared interpretation, insofar as we do not have an ethno-theory that explicitly clarifies the reason underlying an aesthetic choice. Of course, the lack of a verbalised theory does not prevent these practices from constructing *discursivity* in a different way, or, as mentioned above, from having emergent features. If however – as has been suggested by Steven Feld (1982) – one must find the system of metaphors that, if correctly interpreted, allows an ethno-theory to emerge, even if this theory is not formalised, then either my research experience failed to identify these metaphors or, as I believe, these metaphors exist, in the case of Foley artists, but on a tactile and not entirely verbal level. There is, in other words, a quality in the way of touching the things of the world to make them re-sound, an ethics of the gesture, which can be clearly observed but cannot easily be translated into words. This is no doubt a system that can be taught, and that is taught through *exempla*, through the pragmatic, physical work done on the Foley stage (this transmission of knowledge is, moreover, difficult to document, because the time-span in which new Foley artists are recruited and trained in Italy, is very slow; over the decade in which I carried out my research, for example, no new Foley artist was trained in the studios in which I was present).

I understand that this inability to bring out what is implicit in a gesture (or in a 'motor impulse', in Sachs' terms) replicates a limit that many other researchers have historically come up against, whether dealing with music or sound. The problem that continues to arise, in other words, involves the *imponderables of real life* (Malinovski), the irreducible (or multiple) nature of the musical sign (Jankélévitch), or the sonic sign in our case. Again, the problem involves cultural constructions that, by resisting the obsessive chain of symbolic substitutions, are structurally opposed to the properties of *logos* (Connerton 1999) and that introduce the risk of discursively and cognitively formulating a question that cannot be answered in the same terms.

When Andrej Tarkovskij worked in Italy on one of his films, *Nostalghia* (1983), the Foley artists at the Anzellotti studio were faced with methods completely different from the ones to which they were accustomed when working with Italian directors. Tarkovskij gave his personal attention to the creation of the sound effects track. Like some other well-known directors – in Italy, one must certainly mention Sergio Leone – Tarkovskij knew very well how to interact with Foleys, showing knowledge of and respect for their practices, and thus did not make impossible demands that would have been categorically refused, as happened with *L'Eclisse*. He did however dedicate a great deal of effort to obtaining highly detailed effects, within a consolidated practice: he introduced notable variations in the footsteps, diversifying them according to the dramatic moment and the character in question and thus working against a stereotypical rendering; furthermore, he gave much thought to the characters' bodily presence, some ambient effects and the choice of *airs*. Massimo Anzellotti recalls, for example, the enormous amount of water effects used for the sequences with torrential rain. Here, the sound explores the various qualities of pouring rain that, in normal practice, would have probably been given a single ambient effect, or a layered effect that was in any case invariable. In Tarkovskij's approach, instead, sound explores the matter of which the world is made, along with the images; it seems to be engaged in listening to the world's appearance, both

material and aural. This stylistic orientation is perfectly in line with the dramaturgy shaped by sound in Tarkovskij's films. With his extremely refined and well-known conception of the world of sound found in his movies, he may seem to represent an extreme case, but that is exactly the point. In my research experience, I have repeatedly heard stories and anecdotes about the different ways in which directors conceive the sonic world, particularly when the filmmaker in question comes from a different cultural milieu (without the director necessarily being a 'foreigner', as is shown by the case of Antonioni).

What I would like to emphasise is that coming into contact with different practices or extreme cases, whether accepted (Tarkovskij, Pasolini) or rejected (Antonioni) by the system, brings out, by contrast, specific features that may go unnoticed by participant observation or historical-critical reconstruction. One of the paths that must certainly be explored in order to better describe sound effect practices involves a comparison between different production systems. One excellent question we could ask ourselves as researchers, for example, is whether the construction of maleness or femaleness is the same when done by Foley artists in Italy, or in e.g. the United States, Tokyo, Bombay, France or Nigeria. No useful comparative data is available, since this type of research has not yet been attempted to my current knowledge. Analysing sound effect practices may represent an excellent field for transcultural enquiry, within which a careful revival of comparativism would be plausible, and perhaps even desirable.

Is the Studio really relevant?

I am not entirely convinced that the notion of the 'recording studio' is pertinent to the area of research I have attempted to outline. Recording in a studio is no doubt an important part of the process covering all that is involved in the film composer's or the Foley artist's work, but in both cases it is not the only one and, perhaps, in the interpreters' opinion, not even the most important. For a film composer, the process begins with the *spotting session*, the first meeting between the filmmakers and the musician, also involving a series of professional figures who assist the composer, most importantly the music editor, who is the one who ensures continuity throughout the entire process. Generally, the editor has already played a part in the process that leads to the soundtrack, well before the composer. The editor is, for example, often in charge of *temp tracking*,[29] an operation that may even begin during production, while screening the dailies,[30] and that consists in preparing a temporary soundtrack, to be able to evaluate the film, and the initial *rough cuts*[31] with music. All of these operations, including the highly complex phase that precedes the recording session – from composition to preparing *mockups* for the audit of the cues that will have to be recorded – take place outside of a true recording studio. Sometimes the composer's or the orchestrator's *atelier* resemble one, and are no doubt studios in their own right, but they are not actual recording studios. The recording session itself is generally held in specialised facilities intended for orchestral recording, which are quite different, in their volume of space and the technologies used, from pop re-

29 This operation consists in preparing a series of temporary cues that allow the film, or parts of it, to be screened with music. This practice, to which composers sometimes object, is required by a number of factors: the first is the need often felt by directors and editors to evaluate how effective a scene is with a given piece of music, even though the latter is temporary; the second concerns the filmmakers' desire to control the general mood of the soundtrack: by using the temp track, the director, helped by a specialist (often the music editor) creates, through trial and error, a temporary soundtrack entirely made up of pre-existing materials, with which the filmmaker has complete control over the semantic restructuring introduced by the music. The spotting, i.e. the phase of the film's screening with the composer in order to decide on the general characteristics of the soundtrack, is now increasingly substituted or at least downscaled by the temp tracking; this strongly limits the composer's creative autonomy, which in turn leads to the disapproval towards this practice sometimes expressed by composers.

30 The unedited shots are generally screened by the director, or the filmmakers, sometimes along with the actors and creative collaborators involved in directing, the day following the shooting, in order to be evaluated.

31 These refer to the first phase of a film's editing in which a 'roughly' edited version of the film is created. Generally, in the analogue era, the composer's work began strictly with the so-called *locked picture*, a phase in which the editing is considered definitive and acts as a reference point for all departments. This concept has become more indefinite in the digital era, given that digital technology allows the film to be kept open until the last phases, which leads to greater fluidity in the entire process; this does not always ease the composer's task, since they are sometimes forced to endlessly rewrite the music for sequences in which the editing changes continuously.

cording studios. The musical premixes are often made at the facility where the recording took place – a phase currently referred to as *mixing and sweetening* – but the recorded stems, whose mixing is usually left open precisely to allow further manipulation to be done, then pass to the dubbing, which from the point of view of the film's overall mixing operations is certainly more important than the music premixes, in which the composer as a rule does not participate and which are not carried out in a recording studio – North-American practice describes this operation, properly speaking, as a *re-recording*, with a nuance that, with respect to simple recording, highlights the passage from 'recorded' material to 'recorded' material.

It is not only a matter of nominalism. Foley artists, for example, operate in rooms that are, to all intents and purposes, recording studios. Nevertheless, my fieldwork suggests that in the minds of Foleys, precedence goes not to the reproductive/recording aspects but to a performative act, which certainly is recorded but presents a few significant differences compared to a musical performance in a studio. Consistent portions of the process involved in sound effect, furthermore, take place outdoors (direct recording on the set, or the creation of new ambient sounds and special effects in the field). Recording outdoors calls for a set of skills, a sensitivity and an experience that are not comparable to those required in a recording studio. A considerable part of the work, as is the case for film postproduction in general, actually consists in re-recordings that are carried out at the DAW (digital audio workstation, and previously in the transcription room or the editing room) and have little in common with a recording studio. As regards special effects and ambient sounds as well, in the minds of Foley artists, defining them as recordings would be inaccurate. In this case as well, the fact that they are recordings remains in the background compared to ideas concerning how to work with and give shape to previously recorded effects: working *on* sound and *with* sound, the act of *modelling* it and *designing* it over the timeline, seems to me more important in this case than the act of recording or copy/transcribing, which nonetheless lies at the origin of this act of modelling sound.[32] Sound and music postproduction as a whole therefore involves a series of parallel processes. Ethnographically observing them cannot entirely fall under the label of an 'ethnography of recording studios'.

There are no simple solutions to this dilemma. Replacing this label with 'ethnography of film sound and film music production and postproduction processes' would be plausible, but every different media process would consequently require a specific label and a particular specialisation. In the same way as placing sound and music postproduction processes under the wider category of media ethnographies would deprive these creative-musical processes of a substratum that brings them together and is specifically their own, to the detriment of the heuristic effectiveness of the label, which is in any case important in identifying the general phenomenon. If, furthermore, we were to consider all the processes that take place in a recording studio during a film's sound and music postproduction as being brought together by their belonging to the pool of mediatised and reproduced music, the aporias we would come up against are even more radical. As has been rightly maintained by Jay David Bolter and Richard Grusin, extending the theses of the school of Chicago, '*all* mediation is remediation' (Bolter and Grusin 1999: 55). In so doing, they have implicitly abolished the concept of 'mediation'. If we interpret this assumption from an ethnomusicological perspective, remediation becomes an implied process in the selection and use of a sound source, as much as in the construction of a musical instrument; both are expressions of a remediation in that they are derived from a selection of culturally pertinent traits that are referred to a given sound practice, within a chain of uninterrupted remediations. Bolter and Grusin indeed defined remediation both as 'inseparability of mediation and reality' and as 'a process of reforming

32 Unquestionably, in studios where popular music is produced as well, the work done on editing, a process of giving shape which follows the recording operations, is every bit as important, and the weight given to the two procedures varies according to the genre of music. It is however equally true that, particularly with some genres, the so-called tracking is, also from an ideological point of view, constructed and conceived in a way that gives foundation to and guides the work of artists and sound engineers – and is moreover accompanied by the huge iconography involving in creating its fame – while this same ideological framework is less effective in cases of film postproduction in which re-recording is used or previously recorded sound effects are edited and moulded.

reality' (Bolter and Grusin 1999: 55-56). Let us consider two paradigmatic examples of this process of 'reforming reality', taken from both areas discussed here: 1) the case of a Foley artist who selects an instrument or invents a technique suited to producing a new effect. This selection rests on an evaluation of its 'phonogenic' quality, understood as the quality of the sound produced by the instrument *once recorded*: many techniques were conceived and modelled according to the capabilities of the microphone and the process of transduction, selecting techniques and objects that came across as more phonogenic than others for the task at hand; 2) producing mock-ups, mainly intended to obtain the filmmakers' approval for a given cue, forces the composer to use a very small part of the vast array of performance techniques and means of expression available to orchestras, giving greater weight, that is, to that which can be adequately simulated by the set of virtual instruments that make up their technical-creative atelier.[33] Quite commonly, one hears statements by composers concerning the fact that sampling is changing the film composer's ear: the sampled orchestra as a remediating filter (and, even before this, an orchestra remediated through transduction and mixing technologies) shapes the perception of the orchestra as an acoustic medium, definitively changing its colour or in any case requiring us to call upon the illusory categories of *sound quality* and *reality* within the area of remediations, in which they have always been caught up. As is well known in ethnomusicology, the entire culture of acoustic media, beginning with wax cylinder phonograph recordings, has reformed the acoustic reality of the world – as has, truth be told, every sound medium, even before the arrival of sound reproduction technologies. In short, and returning to the thesis of Bolter and Grusin, transparency as 'immediacy' and opacity as 'hypermediacy' are found in a continuum which varies with the changing conditions of perception. Perception clearly encompasses the experience of remediated sounds through recording and reproduction technologies (old tape microphones conceived in the 1930s as mere transducers – reflecting the value of *transparency* – are today appreciated for their qualities as filters – reflecting the value of *opacity*). This confirms the cultural character of sensorial perception and its remediations. Sensorial experience does not prefigure media – which would be impossible *a priori* – but emerges and takes place with them, as brilliantly argued also by André Leroi-Gourhan (1993) with his concept of 'ethnicization of cultures'. From this perspective, adopting the definition of a specific field, such as 'ethnography of recording studios' – or similar definitions that give aetiological precedence to one striking but historically situated moment of a complex chain of remediation – is neither free from aporias nor from ethnocentric projections.

We can rest assured that the *veil of time*, to take up Carlo Ginzburg's expression, will allow these issues to become more clearly unveiled and that ethnomusicological thought will continue to engage with this splendid illusion.

References

BATES, Eliot
2016 *Digital Tradition: Arrangement and Labor in Istanbul's Recording Studio Culture*, Oxford University Press, New York

BATESON, Gregory, and Margaret MEAD
1942 *Balinese Character: A Photographic Analysis*, The New York Academy of Sciences, New York

BENEDICT, Ruth
1946 *The Chrysanthemum and the Sword: Patterns of Japanese Culture*, Houghton Mifflin, Boston

33 On this, see Sapiro (2016), especially Chapter 4.

BOLTER, J. David, and Richard A. GRUSIN
1999 *Remediation: Understanding New Media*, MIT Press, Cambridge (Mass)

BOOTH, Gregory D.
2008 *Behind the Curtain: Making Music in Mumbai's Film Studios*, Oxford University Press, New York

BORN, Georgina
2004 *Uncertain Vision: Birt, Dyke and the Reinvention of the BBC*, Secker & Warburg, London
2005 'On Musical Mediation: Ontology, Technology and Creativity', *Twentieth-Century Music*, II, 1: 7-36

CALABRETTO, Roberto
2012 *Antonioni e la musica*, Marsilio, Venezia

COLLIER, John and Malcolm COLLIER
1986 *Visual Anthropology: Photography as a Research Method*, University of New Mexico Press, Albuquerque (N.M.)

CONNERTON, Paul
1999 *Come le società ricordano*, Armando, Roma, Armando (*How Societies Remember*, Cambridge University Press, Cambridge - New York, 1989)

CORBELLA, Maurizio
2010 *Musica elettroacustica e cinema in Italia negli anni Sessanta*, Ph.D. Thesis, Università di Milano, Milano

FAULKNER, Robert R.
1971 *Hollywood Studio Musicians, their Work and Careers in the Recording Industry*, Aldine-Atherton, Chicago
1983 *Music on Demand: Composers and Careers in the Hollywood Film Industry*, Transaction Books, New Brunswick

FELD, Steven
1982 *Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression*, University of Pennsylvania Press, Philadelphia

GANTI, Tejaswini
2012 *Producing Bollywood: Inside the Contemporary Hindi Film Industry*, Duke University Press, Durham

GINSBURG, Faye D., Lila ABU-LUGHOD, and Brian LARKIN
2002 *Media Worlds: Anthropology on New Terrain*, University of California Press, Berkeley

LASTRA, James
2000 *Sound Technology and the American Cinema: Perception, Representation, Modernity*, Columbia University Press, New York

LEROI-GOURHAN, André
1993 *Gesture and Speech*, MIT Press, Cambridge (Mass.) - London, [*Le geste et la parole*, Albin Michel, Paris, 2 voll., 1964-1965]

LINTON, Ralph
1951 '[Review of] *Hollywood, the Dream Factory: An Anthropologist Looks at the Movie-Makers*', *American Anthropologist*, LIII, 2: 269-271

MARABELLO, Carmelo
2018 *Il potere del film. Gregory Bateson nell'America in guerra contro il nazismo*, Mimesis, Milano - Udine

MARTIN, Sylvia J.
2017 *Haunted: An Ethnography of the Hollywood and Hong Kong Media Industries*, Oxford University Press, Oxford - New York

MCGINITY, Ruth, and Maija SALOKANGAS
2014 'Introduction: "embedded research" as an approach into academia for emerging researchers', *Management in Education*, XXVIII, 1: 3-5

MEAD, Margaret, and Rhoda MÉTRAUX (eds.)
1953 *The study of culture at a distance*, University of Chicago Press, Chicago

MEANDRI, Ilario
2011 'Il suono immaginato', *La Valle dell'Eden*, XXV-XXVI: 170-211
2012 *La fabbrica dei sogni: un'introduzione etnomusicologica al mainstream musicale hollywoodiano*, Kaplan, Torino
2013 *International Recording (1959-1969). Indagine sulle memorie orali,* Kaplan, Torino
2014 'Around the Marvelous: Film Music Formulas From an Ethnomusicological Perspective', *Music and the Moving Image*, XVII, 2: 34-75
2015 'Galvanometer and Light-valves: An Archeology of Dolby SVA in Italy', in Alberto Beltrame, Giuseppe Fidotta, and Andrea Mariani, (eds.) *At the Borders of (Film) History. Temporality, Archaeology, Theories*, Forum, Udine: 457-466
2016a '1965-1968: la nascita delle società rumoristiche romane e l'invenzione della "macchina per ambienti". Studio preliminare II.', in Ilario Meandri, *ICSA – Italian Cinema Sound Archives. Due studi preliminari*, Kaplan, Torino: 29-63
2016b 'L'acustica delle sale cinematografiche tra fascismo e dopoguerra: il dibattito sullo stato del sonoro italiano sulla rivista «Cinema» e il mutamento nei criteri costruttivi delle sale cinema. Studio preliminare I', in Ilario Meandri, *ICSA – Italian Cinema Sound Archives. Due studi preliminari*, Kaplan, Torino: 3-27
2019 'Italian Cinema's Sound Archives: Foley Practices and Post-production Techniques, 1960–70', *Journal of Film Music*, VIII, 1-2: 66-88

MEANDRI, Ilario, Luca COSSETTINI, Cristina GHIRARDINI, and Alessandro MOLINARI
2019 Archivi sonori del cinema: Progetto ICSA – Italian Cinema Sound Archives, Fondazione Ugo e Olga Levi, Venezia

OFFICE OF STRATEGIC SERVICES (O.S.S.), RESEARCH AND ANALYSIS BRANCH
1944 *Japanese Films: A Phase of Psychological Warfare, an Analysis of the Themes, Psychological Content, Technical Quality, and Propaganda Value of Twenty Recent Japanese Films* [Report No. 1307], O.S.S., Washington D.C. [unpublished material]

PETERSON, Mark Allen
2003 *Anthropology and Mass Communication: Media and Myth in the New Millennium*, Berghahn Books, New York

PIANA, Giovanni
1991 *Filosofia della musica*, Guerini, Milano

POWDERMAKER, Hortense
1939 *After Freedom: A Cultural Study in the Deep South*, Viking Press, New York
1950 *Hollywood, the Dream Factory: An Anthropologist Looks at the Movie-makers*, Little, Brown & Co, Boston
1962 *Copper Town: Changing Africa: The Human Situation on the Rhodesian Copperbelt*, Harper & Row, New York

PUSATERI, Lorenzo
2019 *L'estetica del suono e del rumore nel cinema di Michelangelo Antonioni*, BA Thesis, Università di Torino, Torino

ROTHENBUHLER, Eric W., and Mihai COMAN
2005 *Media Anthropology*, Sage, Thousand Oaks (Calif.)

SAPIRO, Ian
2016 *Scoring the Score: The Role of the Orchestrator in the Contemporary Film Industry*, Routledge, New York - London

SCHATZ, Thomas
1981 *Hollywood Genres: Formulas, Filmmaking, and the Studio System*, Random House, New York

SCHWEINITZ, Jörg
2011 *Film and Stereotype: A Challenge for Cinema and Theory*, Columbia University Press, New York [*Film und Stereotyp. Eine Herausforderung für das Kino und die Filmtheorie*, Akademie Verlag, Berlin, 2006]

SPITULNIK, Deborah
1993 'Anthropology and Mass Media', *Annual Review of Anthropology*, XXII: 293-315

YOSHIHARA, Mari
1999 'Re-gendering the Enemy: Orientalist Discourse and National Character Studies during World War II', in Nancy Lusignan Schultz (ed.), *Fear Itself: Enemies Real and Imagined in American Culture*, Purdue University Press, West Lafayette: 167-188

The Construction of a Song: on the Recording of De André's Voice in the 1990s

Vera Vecchiarelli

The work of Fabrizio De André[1] is usually associated with a type of song in which the word takes on a central role. His production is characterised by the extreme care of the sung line and by the selection of themes with a great socio-cultural impact. These features, together with close attention to outcasts and similar human types, have encouraged an insistent comparison with the figure of the poet (Fabbri 2005, 2007). Furthermore, De André's case constitutes a central point in the development of the academic debate on the 20th Century *popular* song. The research prospective has been oriented towards the analysis of the 'poetic-musical text' (Cosi-Ivaldi 2011; La Via 2011a, 2011b, 2012), more frequently in its poetic component or on its themes (Giuffrida-Bigoni 1997; Ivaldi 2015; Marrucci 2009a, 2009b, 2013), towards the characteristics of authorship, to peculiar traits or specific work phases (Fabbri 1997; Pavese 2003, 2009, 2013; Sinopoli 2005, 2006).

From the very beginning of my research[2] it was important for me to reflect upon the figure of the author himself, contextualising the image of the so-called 'cantautore' De André within the context of record production. My contribution intends to embrace the stimulus to discuss the artist's identification with the poet and to consider De André's creativity as a result of a choral work process (Brusco 2020; Fabbri 1997; Pavese 2003, 2009). At the same time, I wonder about the effective role of such a rich personality in that process and about the way in which the peculiar attention to the poetic text engaged with the work on the recorded sound. This aim is connected to a reading of the creative process as a fluid and unitary system, where any element 'has an equal potential to contribute to the uniqueness of the recording' (Moylan 2020: 29). Indeed, according to Simon Zagorski-Thomas (2014), the construction of the track is not only a mechanical reproduction, but it includes further and meaningful characteristics. Therefore, an appropriate consideration of this phase of work

1 Fabrizio De André is probably the most important Italian 'cantautore' (singer-songwriter). He was born in Genoa in 1940 and his production was between 1960 and 1996. His early records were very close to the French chansonnier style, especially to the production of Georges Brassens. Over the years he searched for further musical solutions and proposed works of refined cultural relevance. His records were the result of careful collaborations, which generally aimed at absorbing new poetic and musical styles. In this regard, it will be useful to remember, among others, the important contributions of Gian Piero Reverberi, Nicola Piovani, Francesco De Gregori, Massimo Bubola, Mauro Pagani, Ivano Fossati. Among the records with the greatest impact *La buona novella* (1970), which was freely inspired by the apocryphal gospels, *Crêuza de mä* (1984), a work entirely in Genoese (1984), and the last album *Anime salve* (1996).

2 This chapter collects part of the results of my PhD research started in 2016 at the Sapienza University of Rome. Some of the information collected in the chapter was presented during the conference *Ethnography of recording studios* that took place at the Giorgio Cini Foundation in Venice from 24 to 26 January 2019.

adds an important piece in the description of the creative system of this author/performer.

The Anglo-American context provides numerous stimuli for expanding the research perspective, which have encouraged me to conduct an overall assessment of the record production process. Several papers based on an ethnographic research methodology have suggested to me that a similar approach could also be followed in the study of De André's work; for example, by shifting attention towards situations of collective creativity, such as the setting of the recording studio. In this regard I particularly wish to mention Joe Bennett and Philip McIntyre's studies on creativity (Bennett 2011, 2012, 2013; McIntyre 2008a, 2008b, 2012) and, in the ethnomusicological field, the work of Paul Green and Thomas Porcello (2005), as well as Louise Meintjes (2003).

Unlike these works, my own research is based on a historical perspective, due to the fact that De André passed away 20 years ago. I have therefore focused on interviews with those people who collaborated with him, in various different capacities. My approach is characterised by direct comparisons between several important sources which afford us a better understanding of De André's process of creative writing. The application of an ethnographic method is combined with the study of the extensive autograph materials that since 2003 have been available at the University of Siena's De André Archive (Fabbrini-Moscadelli 2012).[3] As Stefano Moscadelli explains in his introduction to the inventory (Moscadelli 2012), this archive contains various items related to De André's intellectual activities. Among them the musician's books and 'materials of study and work' are particularly significant, as they include annotations, comments, notes, manuscripts and drafts. These archive resources are a precious aid for investigating De André's writing process, and when combined with an ethnographic type of investigation it is possible to go beyond an exclusively philological-analytical approach. In this way the opportunity has arisen to 'give voice' to these documents, notes and manuscripts, while also making them more comprehensible and accessible.

This chapter focuses on the operations of recording and mixing of De André's studio productions in the 1990s particularly the interventions on his voice. I have been able to reconstruct this work thanks to interviews with the sound engineers Maurizio Camagna and Paolo Iafelice (in September 2018 and February 2019 respectively). Camagna's collaboration with De André began in 1989. He was responsible for the studio recording and mixing of *Le nuvole* (1990), and he supervised the recording and mixing of the live album *1991 Concerti* (1991) as well as the first phase of recording for *Anime salve* (1996). Iafelice started working on *Anime salve* when the project was already in progress and he dealt with completing the unfinished recordings, as well as supervising the mixing of all the tracks. The analysis of the production phase has also been possible thanks to the memories of other people who in various capacities met De André's work. Mark Harris, Gian Piero Reverberi, Pasquale Minieri have helped me to understand how the sound treatment was intertwined with the arrangement and the performance choices. Finally, a conversation with Dori Ghezzi, De André's wife, was fundamental for interpreting and expanding the information gained through the interviews. In fact, she acutely observed her husband's creative activity, and was often present in the studio during recording sessions. Generally speaking, the use of the interview aims at the reconstruction of an overall picture with an analytical purpose, in combination with additional analysis tools and other types of sources. In this sense, this chapter differs from those publications which are rather oriented towards the collection of first-hand accounts on a specific theme or aspect. Among these, the book *Fabrizio De André. In studio* (2015), edited by the Fondazione Fabrizio De André Onlus, from which further fragments of published interviews are mentioned in the following pages.[4]

The accounts I have collected regard a limited phase of the entire process that leads from

3 From now on, AFDA. The arrival of the De André Archive at the University of Siena encouraged the birth of the eponymous Centro Studi in 2004, a research organisation located at the Dipartimento di Scienze Storiche e dei Beni Culturali of the University of Siena.

4 I would also like to point out a recent contribution by Francesco Brusco (2020) published while this chapter was in press. His paper is dedicated to the description of the different personalities involved in a recording studio. In particular, it looks through De André's production and is conducted according to the general idea of the strongly cooperative nature of record production.

the conception of a song to its final recording, but they shed light on some crucial aspects of the creative process and reveal many of the requirements and objectives that were connected with the artist's writing methods, communication and performance. I wish to point out that both of the sound engineers repeatedly affirmed that the practices they described were perfectly 'normal', within the context of their extensive professional experience; in Camagna's case, he was co-owner of the Metropolis recording studio in Milan, where most of the work on the albums took place. It is important to bear this in mind, as what were in fact diffuse and common practices should not be seen as distinctive features of De André's approach and of his work, which should instead be considered in a broader context, within which his specific case has some distinctive features.

A 'mania for precision'

On the occasion of the mixing of *Crêuza de mä* (1984) digital technologies were employed for the first time ever in a record released by De André. In the early 1980s the use of these new techniques had introduced a revolution in the methods of record production (Cook et al. 2009; Zak 2011). The record, written and produced with Mauro Pagani, was recorded in analogue and digitally mixed by Allan Goldberg at the Stone Castle Studios in Carimate.[5] Due to this new development, the degree of precision of the studio production work increased significantly. However, this also meant that production timescales were significantly lengthened, culminating in the period of over six months of studio production for *Anime salve* (Sinopoli 2005, 2006). Although *Le nuvole* (1990) was still recorded analogically (with only the mastering carried out digitally), the introduction of computers made it possible to use technology for precision control, particularly for regulating percussive sounds.

> For example, to adjust the timing of percussive sounds because Pro Tools was not available at the time, they had to pass through an Akai S1000 16-bit sampler that could sample only a few dozen seconds in 32 MB of memory (yes, that's megas, not gigas!). It was a huge job: entire nights were spent in fixing the tempos and tuning the percussions of the musicians, sampling everything one little piece at a time using a MIDI-only sequencer. To make things even more complicated, it must be said that when the S1000 reproduced a sound in stereo, it was in phase once and three times out of phase because the two channels couldn't get synchronised, perhaps because the processor was too slow, and so you had to reproduce the various little pieces several times until the phase was correct. In short, it was a genuine nightmare! (Lucchesi 2013).[6]

This is a short but significant example which effectively shows how work in the studio in those years was characterised by what Camagna defined as a genuine 'mania for precision'.[7] This was partially due to De André's need to be absolutely secure on a technical level, even if this meant risking a less spontaneous and more sterile outcome. Every single aspect of the work was the result of careful reflection. Nothing was reckless or unconsidered, and every decision was preceded by endless discussions and reconsiderations, so that the tracks were constantly altered and reshaped. As Piero Milesi had already pointed out,[8] this kind of attention to detail reached extremes during the production of *Anime salve*: «If there was a detail that tormented him, that detail became the universe and nothing moved on until it was resolved. And this is part of the methodology of the search for perfection: it will never

5 The sound technicians were Allan Goldberg and Lucio Visintini, while the studio co-production and mixing were supervised by Allan Goldberg.

6 Original in Italian: 'Ad esempio, per aggiustare i tempi dei suoni percussivi e dato che all'epoca non c'era ancora Pro Tools, questi dovevano passare attraverso un campionatore Akai S1000 a 16 bit che poteva campionare solamente poche decine di secondi in 32 MB di memoria (sì, Mega e non Giga!). Fu un lavoro immane: intere nottate passate ad aggiustare temporalmente e intonare le percussioni dei musicisti campionando tutto pezzetto per pezzetto utilizzando un sequencer solo MIDI. A rendere le cose ancor più complicate, va detto che l'S1000 quando riproduceva un suono in stereo, una volta era in fase e tre in controfase perché i due canali non riuscivano a uscire sincronizzati, forse a causa del processore troppo lento, per cui dovevi riprodurre i vari pezzettini più volte finché la fase non era corretta. Insomma, fu un vero incubo!'.

7 Maurizio Camagna, unpublished interview (Milan, 6 October 2018).

8 Piero Milesi (1953-2011) was the co-producer, arranger and conductor on the album *Anime salve* (1996).

be attained but it is right to seek it» (Milesi in Fondazione De André 2015: 177).[9]

De André's recordings in those years were certainly characterised by a close attention to every detail but, according to my interviewees, this was not solely due to his own meticulous attitude. Instead one must bear in mind that sound recording practices are influenced by their technological and cultural context. In the 1990s, they were still conditioned by the popularity and widespread diffusion of dance music in the previous decade, resulting in the prevalence 'of computers, electronic drums, synthesisers, and of a music that was also a bit sterile' (Camagna in Fondazione De André 2015: 162).[10] Dori Ghezzi also pointed out that, rather than being due to her husband's obsessional disposition, his search for greater precision was due to the profound changes brought about by the introduction of the computer. What might at the time have been seen as an excessive search for perfection was at least partly motivated by the advent of a whole new approach towards sound recording. According to De André's wife, similar practices were the norm for most productions in those years: 'the way of working had changed: records were not made as they had been previously, and the computer was used starting from the phase of pre-production'.[11]

In this case, Dori Ghezzi was referring to the working method for the album *Anime salve*. As Piero Milesi told Alessandro Sinopoli (Sinopoli 2005, 2006), these recording sessions were preceded by a very careful and lengthy phase of pre-production. Milesi recalls that most of the decisions were made in this preliminary phase, so that the production process was a sort of 'writing up' of what had already been established, although, of course, there were some specific exceptions to this rule. In terms of creativity, this involved some substantial differences from the past: thanks to the extensive sampling that had already been carried out, the musicians were able to listen to the parts directly from the multitrack. The initial difficulties caused by this change of approach were explained by Milesi in an interview in 2006 with the Fondazione De André:

> Another reason why I think Fabrizio found it hard to work with me is that he was more used to Mauro Pagani's methodology. I worked in another way and Fabrizio was rather disorientated by this: on his latest albums he had been used to working directly with the instrumentalists, and the starting point was the so-called 'phrase'. I instead had a training as a composer who used pen and paper, with working methods of a certain kind, and so I tended first of all to focus on structural and formal aspects (Milesi in Fondazione De André 2007: 346).[12]

Milesi is referring to a shift of creativity into a different dimension, no longer with the goal of constructing a product in a collective context ('on his latest albums he was used to working directly with the instrumentalists') but now with a certain intimacy, which was shared with the authors of the songs and just a few others. After all, due to the predefinition of the songs, it was no doubt natural for them to be wary of any individual creative contributions arising from a group situation in the studio, especially if this meant introducing any variations to the initial scheme. This was radically different from the analogical approach, with a pre-production phase that usually involved a rather approximate and provisional roughing out of the arrangement, starting from very simple and rudimentary informal recordings.

Milesi's approach involved an intermediate step, in the form of a further preliminary test recording, which was already quite well defined thanks to arrangements made with a sampler. This step anticipated and substituted much of the lengthy work which used to be carried out in the studio (involving many technicians, musicians and producers), substituting it with a more private and intimate dimension (with the presence of only Milesi and De André). Mark

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9 Original in Italian: 'Se c'era un dettaglio che lo tormentava, quel dettaglio diventava l'universo e non ci si smuoveva finché non era risolto. E questo rientra nella metodologia della ricerca della perfezione: non la si raggiungerà mai ma è giusto ricercarla'.

10 Original in Italian: 'del computer, della batteria elettronica, dei sintetizzatori, di una musica anche un po' asettica'.

11 Dori Ghezzi, telephone communication on 31 July 2019: 'era cambiato il modo di lavorare, non si facevano più i dischi come si usava fare nel passato, si usava il computer sin dalla pre-produzione'.

12 Original in Italian: 'Un altro motivo per cui credo che Fabrizio si sia trovato in difficoltà nei miei confronti è che s'era ben abituato alla metodologia di Mauro Pagani. Io lavoravo in un altro modo e Fabrizio ne è rimasto piuttosto spiazzato: negli ultimi album era abituato a lavorare direttamente con gli strumentisti, dove il nucleo di partenza era la cosiddetta frase. Io invece mi ero formato come compositore carta e penna, quindi con metodologie di lavoro di un certo tipo perciò tendevo a privilegiare in prima battuta l'aspetto strutturale e formale'.

Harris[13] also claimed that the practice of carrying out very carefully planned initial recordings, which was greatly facilitated by the use of computers, encouraged some different dynamics regarding the relationship between the ideas sketched out in the pre-production phase and the final recording of the track:

> He used to do some preliminary recordings for me with just guitar and voice. I went home and worked on them, and then I tried to make him understand, because I couldn't play all of the parts together. I said, 'listen to the guitar part, and imagine that underneath it there's this bass part here', and I played it on the piano. 'Then I'll do these harmonies, then we'll go in this direction'. It was an operation conducted mostly in the imagination. What is the problem – if we can call it a problem – of doing the demos with the computer and all that stuff? The problem is that you get obsessive and you say: 'Hey, but here it sounded like this. Can't you hear how natural this thing here is? Let's bring back this bit here, and that thing over there'.[14]

Harris clearly felt that the fact that previously it had not been possible to listen to the overall effect of the arrangement until the moment of recording had allowed more scope for creativity, as it meant that everyone was less firmly attached to the original idea and more willing to make changes. In fact, as Piero Milesi himself pointed out (Bertoncelli 2012), during the recording of *Anime salve* any proposed variations led to an in-depth reflection on whether it was appropriate, due to a certain resistance, especially on the part of De André, to deviate from what had already been 'determined' in the preliminary recordings.

The situation I have described should help to contextualise what Camagna has described as 'a mania for precision'. Apart from De André's personal propensity to coordinate the work and deal with every aspect, the increase in the level of control over the details should be put into relation with a specific working context and the changes that had occurred in the 1980s in production methods. It is important to take different factors into account, not only those related to authorial intent, as suggested by Mihály Csíkszentmihályi's systems model of creativity, which has been applied to popular music by Phillip McIntyre (McIntyre 2008b, 2012; McIntyre/Fulton/Paton 2016). This model involves: «a system composed of three elements: a culture that contains symbolic rules, a person who brings novelty into the domain, and a field of experts who recognize and validate the innovation» (Csíkszentmihályi 1997: 6). Therefore, the innovation introduced by the individual is always acknowledged by a social group (the field) that has a shared set of ideas (the domain); vice versa, the individual is immersed in a specific cultural system, from which he receives impulses and inspiration. According to the systems model, several factors at the basis of artistic creation must be taken into account: these include the expressive needs of creative individuals, as well as their practical, economic and socio-cultural conditioning. An appraisal of the cultural and social factors involved also makes it possible to define more precisely the role and contribution of the author in a context in which similar professionals are active. In this case, the propensity of the artist to be meticulous must be related to the production context of the time and the other people involved in it.

The work on the voice

In this context, the acoustic treatment of the voice stands out as the centre of studio work, as it requires a high degree of care and attention. An anecdote related by Paolo Iafelice reveals how easily a good performance could condition the selection of the recording materials. The sound engineer told me about an episode during the recording of *Anime salve,* specifically the

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13 Mark Harris collaborated with De André on the album *Fabrizio De André* (also known as *L'indiano*, 1981) firstly as a musician and arranger, and then as a musician on the tours in 1981-82 and 1997-98.

14 Mark Harris, telephone conversation, on 16 February 2019: 'Lui a me faceva dei provini con chitarra e voce e basta, poi andavo a casa, ci lavoravo e quindi cercavo di fargli capire, perché non potevo suonare tutte le parti insieme. Dicevo 'senti la parte di chitarra, immagina che sotto c'è questo basso qua e glielo suonavo al piano, poi io faccio queste armonie, poi andiamo di là...'. Era un'operazione fatta più nell'immaginazione. Qual è il problema, se di problema si può parlare... il problema di fare i demo con il computer e tutto il resto è che poi uno si ossessiona, dice 'eh, però... qui veniva così, non senti la naturalezza di questa cosa qua, recuperiamo questo qui, quella cosa là'.

opening of the song *Prinçesa*,[15] in which De André's voice is immersed within street noises:

> When I arrived, the beginning of the album [the first verse of *Prinçesa*] had already been done in the studio, but it didn't sound real. So, when I started mixing the piece, I said 'Fabrizio, I don't think this thing works. Since we're talking about *viados*, let's go and record it on the street to make it as realistic as possible'. Fabrizio and Piero really liked this idea and so we hired a cinema microphone expert and one night, when we had finished work, we went to Viale Papiniano, which is a very busy avenue just behind the studio. Me, Fabrizio, Piero and this operator went and recorded the verse. Then some *viados* were supposed to come into the studio and complete the scene with their voices. But, because he had to shout to be heard above the noise of the street, the recording didn't come out very well and so in the end we decided to recreate the situation in the studio, by adding the noises of cars to the recording.[16]

Iafelice refers to the comprehensibility of the sung words, more specifically to the diction, which had flaws due to being recorded on the street. The importance of effectively rendering the sung word is an essential issue which also Camagna mentions: 'Understanding the words was fundamental, and the text had to be perfectly comprehensible from the beginning to the end. It was certainly one of the goals that always had to be pursued'.[17] This is a crucial point in De André's production in general and it was already a distinctive feature of his first recordings. Gian Piero Reverberi, while describing his work with De André in the 1960s, stated that 'a good mixing was the one that allowed all of the words to be clearly understood without having to relinquish the orchestral colours, optimising the sound levels'.[18]

This approach continued to be valid for a period of over thirty years since, despite the changing ways of working and the revolution of new technological possibilities, the basic aims regarding the reception of the sung word remained substantially unchanged over the years. For the recording of *Prinçesa*, too, along with the attempt to obtain a clean performance, while taking pronunciation, diction and the scanning of words into account, it was indispensable to choose the most suitable means of recording to ensure that the singing voice would remain clear. Camagna and Iafelice explain that the mixing operations were usually accompanied by a targeted listening in order to conduct an in-depth checking of the tracks according to this criterion of comprehensibility, as well as by adjusting the volume levels so as to make some of the words more audible. It was also necessary to adopt a standardised approach to the mixing, in which the voice was always perfectly distinct and comprehensible (while always maintaining a balance with the sound environment).

The recording of a single vocal line could even go on for months, at the same time as the work on the other tracks on the album. Camagna explains: 'The voices were recorded many times, even with gaps of weeks or months. [...] We recorded, then we proceeded with the editing, and then maybe a single bar was recorded another time, even many days later, until we were completely satisfied'.[19] Also Piero Milesi points out that the in-depth work on the voice was intended to perfect the singing more and more, with attention paid to every detail, such as 'a small inflection, a breath, a ripple' (Bertoncelli 2012: 165).[20] This involved the need to position the microphones and regulate their relative volume levels very precisely, so that

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15 Lyrics and music by F. De André and I. Fossati, in *Anime salve* (1996).

16 Paolo Iafelice, telephone conversation, 15 February 2019: 'Quando arrivai io, l'inizio del disco [prima strofa di *Prinçesa*] era stato già fatto in studio, ma non era reale. Quindi, quando iniziai a missare il pezzo dissi 'Fabrizio secondo me questa cosa non funziona, parlando di viados andiamo a registrarla in strada per renderla il più possibile verosimile'. A Fabrizio e anche a Piero piacque moltissimo questa idea e quindi affittammo un microfonista del cinema e una notte, finito di lavorare, andammo in viale Papiniano, un viale molto trafficato proprio dietro lo studio. Andammo io, Fabrizio, Piero e questo microfonista e registrammo la strofa. Poi sarebbero venuti i viados in studio e avrebbero completato la scena con le loro voci. Però, siccome lui doveva urlare per via dei rumori della strada, non venne benissimo e per questo alla fine decidemmo di ricreare la situazione in studio, applicando i rumori delle macchine alla registrazione'.

17 Maurizio Camagna, unpublished interview (Milan, 6 October 2018): 'La comprensione delle parole era fondamentale, il testo doveva essere perfettamente percepibile dall'inizio alla fine, era sicuramente uno degli obiettivi da perseguire sempre'.

18 Gian Piero Reverberi, e-mail dated 25 May 2018. 'un buon missaggio era quello che permetteva la percezione di tutte le parole senza dover rinunciare ai colori orchestrali ottimizzando i piani sonori'.

19 Maurizio Camagna, unpublished interview (Milan, 6 October 2018): 'Le voci venivano registrate tantissime volte, anche a distanza di settimane o mesi. [...] Si registrava, poi si andava avanti col montaggio, poi si registrava un'altra volta magari una sola battuta anche diversi giorni dopo, finché non si era completamente soddisfatti'.

20 Original in Italian: 'una piccola inflessione, un respiro, un'increspatura'.

all the tracks had a sound that was as homogeneous as possible, even if they were recorded at different moments separated by a long time. For this reason, an interminable number of recordings were made, which for obvious reasons of space could not all be preserved. In the recording of *Le nuvole* (1990), for example, out of the twenty-four channels available (as many as forty-eight for some tracks, where two tuned recording devices were used), only a few channels were dedicated to the voice, generally five at most. But these three, four or five final tracks, on the basis of which the definitive one was 'constructed', were themselves the result of assembling the fragments of previous recordings, gradually obtained by selecting each word, and sometimes even each separate syllable of the words.

Editing a song by combining several different recordings is still a routine practice in the music business, which has been carried out for many years. It is however interesting to note that in De André's albums many recordings were made with rather long intervals of time between them, in order to improve the piece not so much on a technical level, as much as from the point of view of its interpretation:

> Expressiveness was also very important, and with Fabrizio intonation was never a big problem. He was very talented, and he sang very well. [...] But over the years you become more and more of a maniac, and he said, 'I would like it to be interpreted in another way' and he maybe even redid it hundreds of times, until there was a version that satisfied him.[21]

De André's close attention to expressiveness and interpretation is a fact that is confirmed by several other sources. For example, several people told me an anecdote relating to Piero Milesi in almost exactly the same way, which clearly shows that it had particularly struck him. It concerns a passage of *Disamistade*,[22] in which the recording of the word '*sangue*' (blood) had been recorded over and over again because De André was never completely satisfied with the effect obtained. This word occurs twice in the song: in line 9, 'due famiglie disarmate di sangue', and then in line 19, 'uno scoppio di sangue'; the first of these lines is characterised by the repetition of the two similar sounds 'disa' / 'di sa', the second by the alliteration of the fricative [s]. In both cases (the first of which is shown in Figure 1), the word corresponds to a downward inflection in the melody, leading down to the lowest note in the whole song:

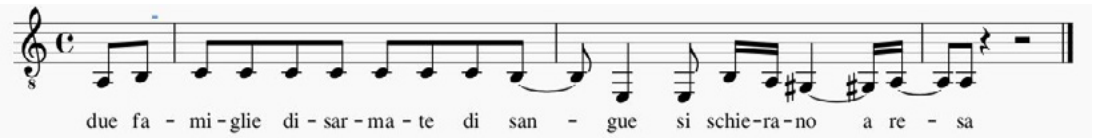

Figure 1. *Disamistade*

This descent of the note also corresponds to a reduction in volume that Piero Milesi represented in a graph (Figure 2) that was published on the website Via del campo.it [23]

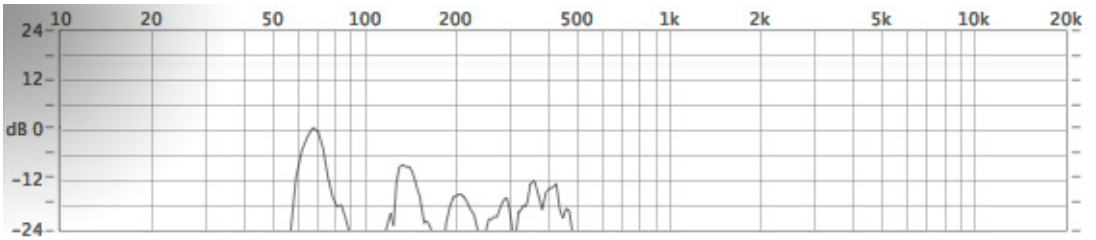

Figure 2. The last syllable of the word 'sangue'

21 Maurizio Camagna, unpublished interview (Milan, 6 October 2018): 'Contava molto anche l'espressività, l'intonazione con Fabrizio non è mai stata un grosso problema. Lui era molto bravo, cantava molto bene. [...] Però con gli anni diventi sempre più maniaco, diceva 'mi piacerebbe che fosse interpretata in un altro modo' e la rifaceva magari anche centinaia di volte, fino a che non c'era una versione che lo soddisfacesse'.

22 Lyrics and music by F. De Andrè and I. Fossati, in *Anime salve* (1996).

23 http://www.viadelcampo.com/html/anime_salve2.html, last access last access December 28th, 2023.

The song *Disamistade* is about a feud between two families, involving an interminable escalation of increasingly grave acts of mutual violence, interspersed with moments of waiting between one episode and the next. The word 'sangue' seems to express a sense of latent tension deriving from the intervals of waiting and the acts of revenge, thanks to the sliding effect created by the combination of the pitch interval and the *diminuendo*, and for this reason it probably required a greater effort of vocal interpretation.

So, the need to record the same passages many times was almost always motivated either by practical or by expressive considerations. In addition to the careful attempt to attain certain expressive effects, typical cases concerned the change of a word within the poetic text during the recording sessions. The attention to the clarity of the songs and the slow maturation of the interpretation, were both accompanied by adjustments to the poetic text, which could involve the completion of some verses, or various other changes which, in many cases may have been suggested by the purely sonic rendering of the words themselves.

Some documents in the De André Archive can give one an idea of this kind of work, which was mainly carried out at the moment of recording. Some interventions of this type can be detected in the worksheets for the song *La domenica delle salme*.[24] Sheet 130H of folder IV/29 (Figure 3) reveals that several modifications were made to the first seven lines of the songs just before it was recorded: '*nella*' was replaced by '*dalla*' in the third line; '*individuarlo*', in the fifth line, was replaced with the more musical and fluid '*seguirlo*', which reduced the number of syllables of this line from eleven to nine; and a little further down '*appesa*' (hanging) becomes '*accesa*' (illuminated), which resonates with the concept of the '*lampadina*' (lightbulb) in the next line. The three words with different meanings but similar sounds – *appesa* / *accesa* / *arresa* – written in the upper right-hand corner of the sheet, seem to indicate that a choice was being made that was based on the sound component of the words. These three words are characterised by their assonance and rhyme and are differentiated only by the double consonant: ac-cé-sa / ap-pé-sa / ar-ré-sa. From the semantic point of view, however, they refer to completely different thematic areas.

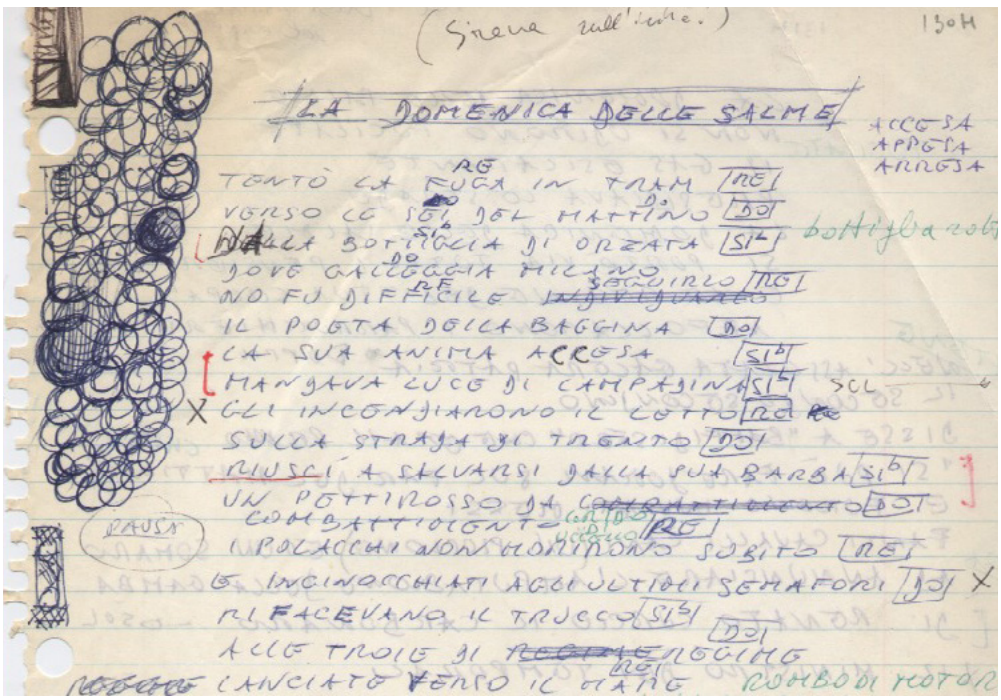

Figure 3. Worksheets for the song *La domenica delle salme* (AFDA, IV/29: c. 130H). The document shows that several modifications were made to the first seven lines of the songs just before the song was recorded.

24 Lyrics and music by F. De André and M. Pagani, in *Le nuvole* (1990).

Sheet 57H of folder IV/29 (Figure 4), instead, represents a significant advance in recording practices, as is shown by the small numbers corresponding to each of the lines, which indicate the channels on which the voice was recorded. The final verse is written with another pen, evidently added at a later date. In fact, some other documents inside the same folder confirm that it was completed during the recording sessions. This is a useful example to show how in many cases the work of writing continued during the production phase.

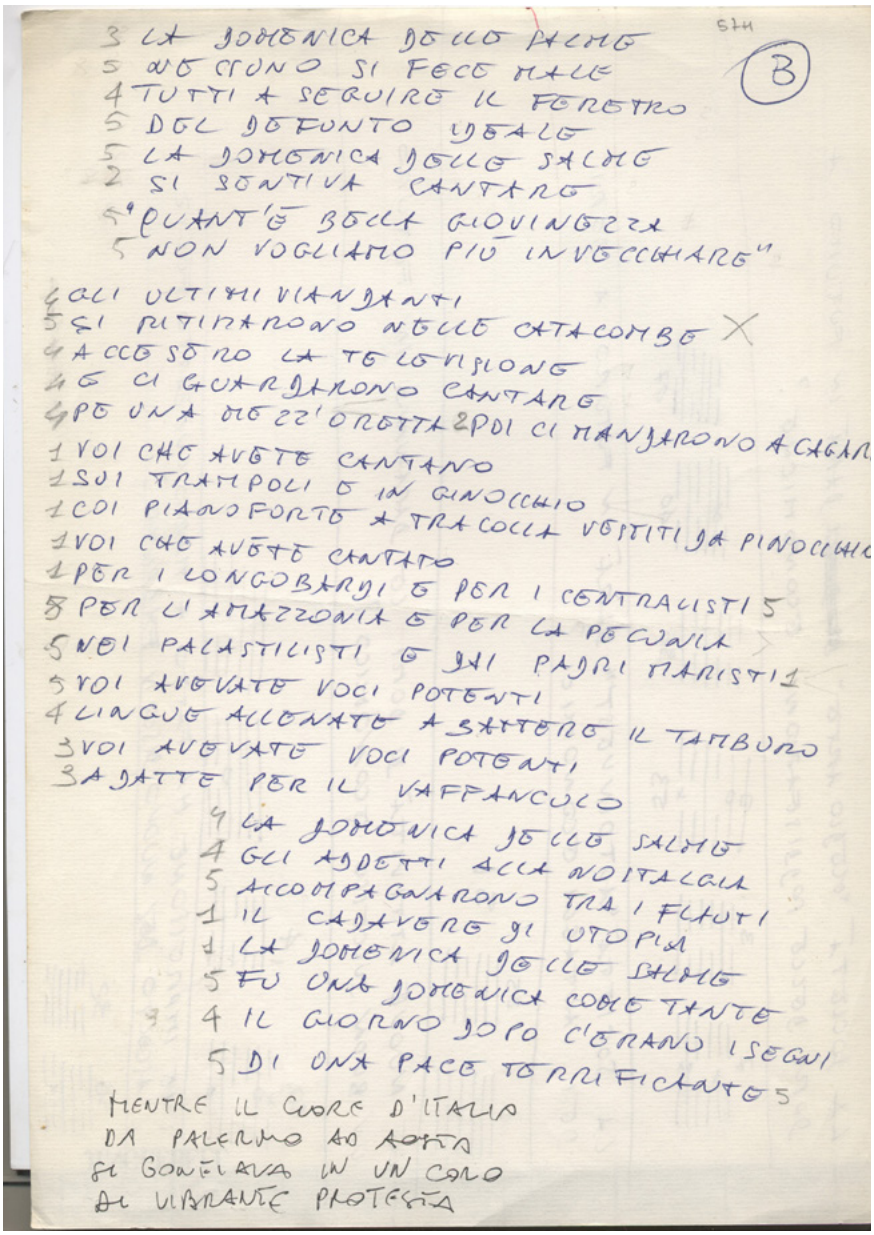

Figure 4. Worksheets for the song *La domenica delle salme* (AFDA, IV/29: c. 57H). The small numbers corresponding to each of the lines indicate the channels on which the voice was recorded.

The documents that refer to the songs of *Anime salve* (1996) indicate a similar tendency to carry out further modifications to the poetic texts throughout the process of recording. In the folder IV/165, the document E/26 (Figure 5), regards the recording of the song *Disamistade*. It shows some corrections made to the lyrics during the recording session. These include changing the lines '*e la parte che manca / la integra l'autorità*' into '*e alla parte che manca / si dedica l'autorità*' and replacing the word '*aggrega*' (joins/aggregates) with '*oppone*' (opposes), which has almost the opposite meaning. Once again it is clear that the selection of the words to be sung

was dictated by phonetic as well as semantic criteria, and that the final solution represented a delicate balance between several different but complementary factors.

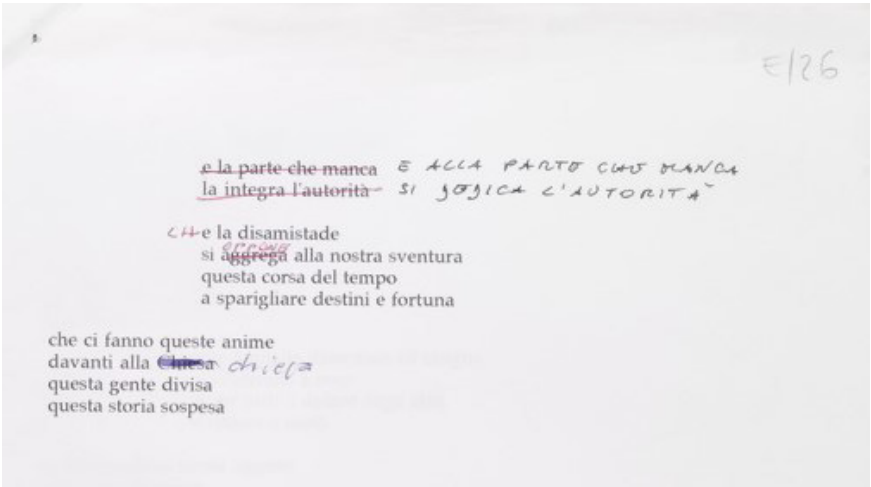

Figure 5. Worksheets for the song *Disamistade* (AFDA IV/165: c.E26). The document shows some corrections made to the lyrics during the recording session.

The examples I have given clearly show how adjustments to the text continued to be made even in the recording studio, being integrated with considerations regarding the sound and the performance in a continuous interchange of stimuli and ideas. In this context, the recording of the voice was practically a test bed. The fact that the more strictly musical part of the song was progressively taking shape also facilitated the resolution of the last problematic issues and uncertainties, especially the final decisions regarding the interpretation and adjustments to the text. For this reason, the creative process should thus not be evaluated as a succession of independent and detached phases. As Timothy Warner (2009) claims, it is necessary to have a broad overview of the creative process, in order to establish a relationship between the main stages of which it consists. In his genetic model of creativity, he identifies the four phases of 'conception', 'production', 'perception' and 'contextualization' which should be considered not so much as the separated stages of a linear process, but rather as belonging to a complex system that admits reciprocal exchanges and influences: «Crucially, these four are not separate elements in a linear production process but rather as activities that occur concurrently, each informing, and often bringing about, modifications in the others» (Warner 2009: 142). This means, for example, that what is elaborated in the pre-production phase is based on a prediction of the next two stages, namely the production and the reception of the work in relation to the contemporaneous and very recent repertoires. Thus, production can influence the choices made during the writing phase, suggesting further changes, since the phases defined by Warner are themselves liable to continuous alteration and remodulation. According to this system the analysis of every single phase is therefore incomplete unless it is adequately contextualised in the overall creative system.

The thorough work on the voice also included a close attention to timbre. Camagna explains that, in the specific case of *Le nuvole*, this requirement in this sense was quite easily satisfied, thanks to a 'German valve microphone made by a company called Neumann. The model was the U67, dating to the 1950s: an old microphone that he liked very much and that created a very warm timbre'.[25] Dori Ghezzi also confirms that her husband particularly appreciated the Neumann, which had already been used for his previous albums, because it rendered his specific vocal timbre so faithfully: 'it was an old microphone to which he was

25 Maurizio Camagna, unpublished interview (Milan, 6 October 2018): 'un microfono a valvole tedesco di un'azienda che si chiama Neumann, il modello era l'U67, un modello degli anni Cinquanta, un microfono vecchio che a lui piaceva molto e che creava un timbro molto caldo'.

very attached because it reproduced really well the dark timbre of his voice'.[26] The merits of this microphone include the fact that it enhances the lowest pitches, which satisfied a precise request by De André himself. Camagna explains that the Neumann U67, even when he sang very close to it, enhanced the peculiar timbre of his voice without ruining its sound, unlike many other microphones: 'Instead, that microphone managed to maintain a nice bright sound even when you were very close, greatly amplifying the low tones at the same time. This is called the proximity effect'.[27]

This microphone was fairly common, but, in addition to its indispensable function of ensuring that the words sung were comprehensible, it allowed De André to achieve some specific personal objectives: above all the emphasis of the lowest tones, which were a characteristic trait of his timbre. Camagna also focuses on another issue: the intentional exploitation of the proximity effect, which was motivated (in addition to the previously mentioned timbric needs) by De André's tendency to 'croon' directly into the microphone. During the International Seminars of Ethnomusicology (Seminari Internazionali di Etnomusicologia) 2019 organised by the Fondazione Giorgio Cini,[28] the sound engineer Pasquale Minieri, who had attended some recording sessions for the album *Rimini* (1978), mentioned that closeness to the microphone was a characteristic feature of De André's singing; a habit dictated by a need to communicate directly, and by the desire to sing 'into the ear' of his listeners. Minieri's testimony is confirmed by Dori Ghezzi, who added that, over the years, De André alternated this propensity with other expressive modalities, although it remained a very characteristic element. In his description of the peculiarities of the proximity effect, Albin Zak highlighted how the alteration of the voice that it produces has some precise expressive implications: «It is a kind of distortion, and it creates a muffled boominess that requires filtering. On the other hand, with controlled use it can be an expressive device, adding, for example, a warm intimacy to a vocal performance» (Zak III 2001: 110-111). This dimension of intimacy described by Zak encourages us to place De André's work in a purely discographic perspective, not necessarily connected to the revival of a live performance (Turino 2008).

As regards the effects that were applied to De André's voice, both of the above-mentioned sound engineers explained how the only intervention made was aimed at further defining the timbre and the clarity of the sung text. Camagna reports that in addition to the reverb effect, essential for creating a natural-sounding setting, compression was also applied: 'The compressor is an absolutely standard intervention that compresses the waveform, in order to crush the voice. It makes it more understandable and even a little bigger, and so it helped Fabrizio to obtain those bass notes because it pulls up the frequencies that you can hear less and lowers those that would otherwise be heard more'.[29] Thanks to the compression of the waveforms it was therefore possible to standardise the singing line, enhancing its clarity and favouring a certain colour.

Considering this situation, which reveals the great importance that was given to the effective rendering of the singing, it is certainly no coincidence that, during the production of *Anime salve*, a problem concerning the way De André's voice was to be rendered led to a lot of tension with Camagna, who quit his job as a consequence. This episode was the proverbial last straw that finally upset a situation that, for various reasons, was already very tense and disharmonious, leading to a further reorganisation of the working group. Paolo Iafelice took his place, continuing with his recordings and subsequently also dealing with the mixing. The problem of the voice was resolved by changing the microphone:

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26 Telephone conversation with Dori Ghezzi (31 July 2019): 'era un microfono vecchio, a cui lui era molto legato perché rendeva bene il suo timbro scuro della voce'.

27 Maurizio Camagna, unpublished interview (Milan, 6 October 2018): 'Invece quel microfono riusciva a mantenere un bel suono brillante anche stando molto vicino, amplificando allo stesso tempo molto i bassi. Si chiama effetto prossimità'.

28 The seminar *Ethnography of recording studios*, supervised by Serena Facci and Giovanni Giuriati, was held at the Fondazione Giorgio Cini in Venice from 24 to 26 January 2019.

29 Maurizio Camagna, unpublished interview (Milan, 6 October 2018): 'Il compressore è un intervento assolutamente standard che comprime proprio la forma d'onda, in modo da schiacciare la voce. La rende più comprensibile e anche un po' più grossa, quindi aiutava nel caso di Fabrizio nell'avere queste basse perché tira su le frequenze che si sentono meno e abbassa quelle che si sentirebbero di più'.

> We opted for the U47, also by Neumann, which was much cleaner. The problem is that, because of that deep low zone that he liked so much, it was unfortunately worse, because the U47 has a slightly more pronounced proximity effect and he, Dori, and all of the entourage liked this very much. However, it was a bit distorted, but they didn't let me clean it. Fabrizio didn't need it, because his voice was already deep in itself, but he couldn't be persuaded because he said 'this voice has always been my strength, my trademark'.[30]

The idea of the vocal timbre thus once again appears to be the real driving force of De André's sound, or the first factor among 'a set of indicators that allow for its identification' (Delalande 2010: 161). It is a trademark sound which was consciously and deliberately emphasised already in the very first recordings and which is one of the few constants of De André's highly heterogeneous artistic production. It also becomes clear how closely intertwined the work on the voice is with the overall work on the song, for example with the progressive refinement of the text and its vocal interpretation. Also, for this reason, perfecting a vocal line did not simply consist of the application of technical skill, but required a predisposition towards understanding the underlying needs of the whole artistic project. The interviews that I carried out reveal the dimension of a shared task, a primary condition that led those involved to participate in the decisions of the others by means of proposals, stimuli, opinions, and in some cases disagreements. This is a type of creativity that, while being directed by an individual (or individuals), thrives and feeds on the contribution of other people. In this delicate balance, one very important thing – which according to the interviewees was the most important thing – was the harmonious interplay of the team and the existence of a tranquil environment of mutual trust. The lack of a completely harmonious situation during a phase of the production of *Anime salve*, due to a series of eventualities, created problems, also in terms of creativity, which led the sound engineer to abandon the project halfway through. On the other hand, a good working atmosphere could favour creative solutions of various types, as suggested by Paolo Iafelice:

> Fabrizio heard very well, even though he sometimes didn't know how to specify what he had understood in technical terms, but he immediately identified something if it wasn't going well. It must be added that he really liked to be surprised, and he was very open to new things and suggestions, as long as they were relevant. In fact, he never held me back. (Iafelice in Fondazione De André 2015: 180).[31]

The situation I have outlined reinforces the concept of work in the recording studio as a social activity (Frith-Zagorski-Thomas 2012) or, as Louise Meintjes claims, 'a microcosm of the society within which it exists' (Meintjes 2003: 9). This scenario, with De André immersed in the reciprocal mechanisms of record production, challenges the image of the lone songwriter/poet and encourages us to go beyond the image of an authorial figure, which is strongly influenced by myths and preconceptions that have no critical support (Boden 2004; Negus 2011); in this context, we have seen how projects took shape through working with a group in which De André (assisted by others) had the role of coordinator and depositary of an artistic project. Moreover, the case I have presented demonstrates the effectiveness of a type of ethnography which is based on the collection of interviews for the purpose of historical reconstruction and combined with a rigorous analysis of written sources. For example, it has highlighted how the work on sound was intertwined with the improvement of the poetic text and the performance. Finally, this approach has proved helpful for a more conscious analysis of working contexts involving several individuals.

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30 Paolo Iafelice, telephone conversation, 15 February 2019: 'Passammo all'U47, sempre Neumann, che era molto più asciutto. Il problema è che, per via di quella zona bassa profonda che a lui piaceva molto, fu purtroppo peggio, perché l'U47 ha un effetto prossimità un pochino più pronunciato e questa cosa a lui, a Dori, a tutto l'entourage piacque molto... però era un po' falsata, ma non me la fecero pulire. Fabrizio non ne aveva bisogno, perché aveva una voce profonda già di suo, ma non ne volle sapere perché diceva 'questa voce qua è da sempre la mia forza, il mio segno di fabbrica'.

31 Original in Italian: 'Fabrizio ci sentiva molto bene, anche se magari a volte non sapeva circostanziare in modo tecnico ciò che aveva colto, ma identificava subito se qualcosa non andava. A questo va aggiunto che gli piaceva molto essere sorpreso, era molto aperto a novità e suggerimenti, sempre che fossero pertinenti. Infatti non mi ha mai frenato'.

Acknowledgments

This essay could not have been written without the collaboration and the first-hand accounts of several people. I would particularly like to thank Maurizio Camagna and Paolo Iafelice for helping me to understand the working methods and atmosphere that were typical of the recording studio. Special thanks also go to Dori Ghezzi and the Fondazione De André for support, useful discussions and valuable information, as well as for their authorisation to publish the documents I have quoted.

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References

BENNETT, Joe
2011 'Collaborative Songwriting – the Ontology of Negotiated Creativity in Popular Music Studio Practice', *Journal on the Art of Record Production, July (5). (Available online:* https://www.arpjournal.com/asarpwp/collaborative-songwriting-%E2%80%93-the-ontology-of-negotiated-creativity-in-popular-music-studio-practice/, last access December 28th, 2023)
2012 'Constraint, Collaboration and Creativity in Popular Songwriting Teams', in Dave Collins (ed.), *The Act of Musical Composition. Studies in the Creative Process*, Routledge, Farnham: 139-169
2013 '«You Won't See Me» – In Search of an Epistemology of Collaborative Songwriting', *Journal on the Art of Record Production, 8. (Available online:* https://www.arpjournal.com/asarpwp/%E2%80%9Cyou-won%E2%80%99t-see-me%E2%80%9D-%E2%80%93-in-search-of-an-epistemology-of-collaborative-songwriting/, last access December 28th, 2023)

BERTONCELLI, Riccardo
2003 *Belìn, sei sicuro? Storia e canzoni di Fabrizio De André*, Giunti, Firenze

BODEN, Margaret
2004 *The Creative Mind: Myths and Mechanisms* (2nd ed.), Routledge, London

BRUSCO, Francesco
2020 'Fabrizio De André in studio. Pratiche, scelte autoriali e modalità cooperative di produzione', *Musica/Realtà*, XL 121: 131-161

CENTRO STUDI FABRIZIO DE ANDRÉ (ed.)
2009 *Il suono e l'inchiostro. Poesia e canzone nell'Italia contemporanea: cantautori, saggisti, poeti a confronto*, [atti del convegno di studi *Poesia e canzone d'autore in Italia. Evoluzioni contemporanee e fantasie di avvicinamento* (Siena, 10-12 ottobre 2007)], con un contributo di M. Paolini, Chiarelettere, Milano

CIABATTONI, Francesco
2016 *La citazione è sintomo d'amore. Cantautori italiani e memoria letteraria*, Carocci, Roma

COOK, Nicholas, Eric CLARKE, Daniel LEECH-WILKINSON, and John RINK (ed.)
2009 *The Cambridge Companion to Recorded Music, Cambridge University Press, New York*

COSI, Claudio, Federica IVALDI
2011 *Fabrizio De André. Cantastorie fra parole e musica*, Carocci, Roma

DELALANDE, François
2010 *Dalla nota al suono: la seconda rivoluzione tecnologica della musica*, edizione italiana a cura di M. Disoteo, Centro studi musicali e sociali Maurizio Di Benedetto, F. Angeli, Milano. [o.e. Id. (2001), *Les Son des Musiques. Entre technologie et esthétique*, Pierre Zech Editeur, Paris]

FABBRI, Franco
1997 'Il cantautore con due voci', in Romano Giuffrida, Bruno Bigoni (eds.), *Accordi eretici, introduzione di Mario Luzi, manoscritti di Fabrizio De André, Euresis, Milano: 155-168*
2005 'Quello che le parole non dicono', in Elisa Tonani, *Storia della lingua italiana e della musica*, atti del IV convegno dell'Associazione per la Storia della lingua italiana (Sanremo, 29-30 aprile 2004), Franco Cesati, Firenze: 191-197
2007 'Fabrizio De André musicista', in Andrea Cannas, Antioco Floris, Stefano Sanjust (eds.), *Cantami di questo tempo. Poesia e musica in Fabrizio De André*, fotografie di D. Zedda, Aispa Edizioni, Cagliari: 265-275
2009 'De André il progressivo', in Centro Studi F. De André (ed.), *Il suono e l'inchiostro*: 81-103

FABBRINI, Marta, Stefano MOSCADELLI (eds.)
2012 *Archivio d'autore: le carte di Fabrizio De André*, introduzione di Stefano Moscadelli, Ministero per i beni e le attività culturali, Direzione generale per gli archivi, Roma

FONDAZIONE FABRIZIO DE ANDRÉ ONLUS
2007 *Volammo davvero. Un dialogo ininterrotto*, a cura di Elena Valdini, postfazione di D. Fo, Rizzoli, Milano
2015 *Fabrizio De André. In studio*, libro + 14 cd, Sony Music, Milano

FRITH, Simon, Simon ZAGORSKI-THOMAS (eds.)
2012 *The Art of Record Production*, Ashgate, Aldershot

GIUFFRIDA, Romano, Bruno BIGONI (eds.)
1997 *Fabrizio De André. Accordi eretici*, introduzione di Mario Luzi, Euresis, Milano

GREENE, Paul D., Thomas PORCELLO
2005 *Wired for Sound: Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown

IVALDI, Federica
2015 '*In vitro,* in carta. Progettazione e genesi dei testi di *Crêuza de mä*', *Forum Italicum*, XLIX/2: 509-531

LA VIA, Stefano
2011a 'De André «trovatore» e la lezione di Brassens', in Gianni Guastella, Marianna Marrucci, (eds.), *Da Carlo Martello al Nome della rosa. Musica e letteratura in un Medioevo immaginato*, «Semicerchio. Rivista di poesia comparata», XLIV/1: 68-105
2011b 'La «canzone d'autore»: dal concetto alla serie di studi', in Claudio Cosi, Federica Ivaldi, *Fabrizio De André. Cantastorie fra parole e musica*, Carocci, Roma: 11-22
2012 'Il topos della «chiara fontana» dal Medioevo al Sessantotto (con echi delle Metamorfosi e del Cantico dei Cantici)', in Gianni Guastella, Paolo Pirillo, (eds.), *Menestrelli e giullari. Il Medioevo secondo De André e l'immaginario medievale nel Novecento italiano*, Atti del convegno *Il Medioevo di Fabrizio De André*, Bagno a Ripoli, 16 ottobre 2010, Edizioni Firenze, Firenze: 67-104

LUCCHESI, Roberto
2013 'Il suono di De André. Intervista a Maurizio Camagna', *Backstagenews*, 13 ottobre

MARRUCCI, Marianna
2009a 'Dalla carta alla voce. Fabrizio De André, la poetica del 'saccheggio' e il caso di *Smisurata preghiera', Per leggere, IX/16: 175-187*
2009b 'Il mosaicista De André. Sulla genesi e composizione dei testi di un cantautore', in Centro Studi F. De André (ed.), *Il suono e l'inchiostro*: 104-121
2013 *Fabrizio De André. Donne pensate come amore, Zona, Arezzo*

McINTYRE, Phillip
2008a 'Creativity and Cultural Production: An Interdisciplinary Approach to Understanding Creativity Through an Ethnographic Study of Songwriting', *Cultural Science I/2: 1-8*
2008b 'The Systems Model of Creativity: Analyzing the Distribution of Power in the Studio', *Journal on the Art of Record Production, III*
2012 'Rethinking Creativity: Record Production and the Systems Model', in Simon Frith and Simon Zagorski-Thomas (eds.), *The Art of Record Production*, Ashgate, Aldershot: 149-161

MEINTJES, Louise
2003 *Sound of Africa! Making Music Zulu in a South African Studio*, Duke University Press, Durham & London

MOSCADELLI, Stefano
2012 'Introduzione', in Marta Fabbrini, Stefano Moscadelli (eds.), *Archivio d'autore: 9-82*
2017 '*Prinçesa* di Fabrizio De André: appunti per lo studio del testo', in Marco Gatto, Luca Lenzini (eds.), *L'esperienza della musica*, *L'ospite ingrato. Periodico del Centro studi Franco Fortini*, Nuova serie IV: 205-231

MOYLAN, William
2020 *Recording Analysis: How the Record Shapes the Song*, Routledge, Farnham

NEGUS, Keith
2011 Authorship and the Popular Song, *Music and Letters,* XCII/4, November: 607-629

SINOPOLI, Alessandro
2005 '*Anime salve*: un esempio di ricerca etnografica applicata ai popular music studies', in Laura Leante (ed.), *Etnomusicologia e studi di popular music: quale possibile convergenza?* Atti on-line del XI Seminario Internazionale di Etnomusicologia. Istituto Interculturale di Studi Musicali Comparati della Fondazione Giorgio Cini Venezia, gennaio 2005. https://omp.cini.it/public/index.php/FGCOP/catalog/book/7
2006 *Fabrizio De André. Anime salve*, Auditorium, Milano

TURINO, Thomas
2000 *Nationalists, Cosmopolitans, and Popular Music in Zimbabwe*, University of Chicago Press, Chicago
2008 *Music as Social Life: The Politics of Participation*, University of Chicago Press, Chicago

WARNER, Timothy
2009 *Approaches to Analysing Recordings of Popular Music*, in Scott, Derek B. (ed.), *The Ashgate Research Companion to Popular Musicology*, Ashgate, Farnham, pp. 130-145

ZAGORSKI-THOMAS, Simon
2014 *The Musicology of Record Production*, Cambridge University Press, Cambridge

ZAK, Albin J. (III)
2001 *The Poetics of Rock. Cutting Tracks, Making Records*, University of California Press, Berkeley, Los Angeles and London

Discography

DE ANDRÉ, Fabrizio
1978 *Rimini*, Ricordi SMRL 6221, lp
1981 *Fabrizio De André (Indiano)*, Ricordi SMRL 6281, lp
1984 *Crêuza de mä*, Ricordi SMRL 6308, lp
1990 *Le nuvole*, Ricordi STVL 6444, lp
1991 *1991 Concerti*, Fonit Cetra TAL 1003, 2 lp
1996 *Anime salve*, bmg-Ricordi STVL 392351, lp

Technological and Methodological Assemblages: Analyzing the Production of Culture in Istanbul's Recording Studios

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Recording studios are acoustical environments and social spaces designed to do four things: they house massive amounts of 'stuff' (e.g. technologies, acoustic materials, furniture), organize objects and people within the space, position themselves in relation to the outside world, and structure how specific occupations are able to contribute to production workflows (Bates 2020). But what should recording studio *ethnographies* consist of? At a minimum, in some meaningful way they have to grapple with the human experience of architecture and technology. But beyond something pertaining to technology and architecture, an ethnographer can't know in advance what will matter most in a particular studio milieu, and shouldn't assume that specific discourses outside of the studio necessarily factor meaningfully on practices within. *Within* a production milieu, even those engaged with traditional music, not all recording acts are best described as productions of symbolic representations, and not all recordings are governed by anxieties around authenticity.

Most routine recording studio operations, whether recording a new part or mixing a song, cut across domains (i.e. sensory, material, social, digital, discursive, musical) that in academic accounts are *purified* (Latour 1993)—presented *as* discrete and analyzed in isolation. Two challenges for studio ethnographers, then, concern how to *resist* the excessive purification of domains, and how to develop a suitable locally specific approach for dealing with heterogeneity as a core defining aspect. The analysis of heterogeneity *as* heterogeneous, however, requires heterogeneous research methods, what John Law terms *method assemblage* (Law 2004: 143). 'Deep hanging out' (Geertz 1998) is a start, but insufficient by itself. Aside from importing stuff from neighboring ethnographic fields (where the purification problem persists), ethnomusicology needs to develop suitable analytical tools and methods attentive to the lived experience of materiality and digital materiality: both how materiality shapes the social aspects of studios, and how it shapes bodies and embodied dispositions. Towards that goal, I will reflect on my prior research in Istanbul's studios.

One problem researchers face, when we encounter studios or photographic representations of them, is that the presence of a technology doesn't tell us how it's being used and toward what ends, or even if it's being used at all. In other words, we see evidence of *materiality*, but we don't yet understand the *material semiotics*—the relations between heterogeneous actors inside and outside the frame (Law 2009). For example, looking at two pictures of the control room at Kalan Stüdyo (Figure 1, Figure 2), which in 2009 was a fairly typical Istanbul 3-room commercial studio, what are the important technological objects, for their musical or technical functions, or for their cultural meanings and role in enabling cultural meanings to be made audible? What matters in an ethnography of *this* studio?

Figure 1. Kalan Stüdyo control room. Photograph by Ladi Dell'aira.

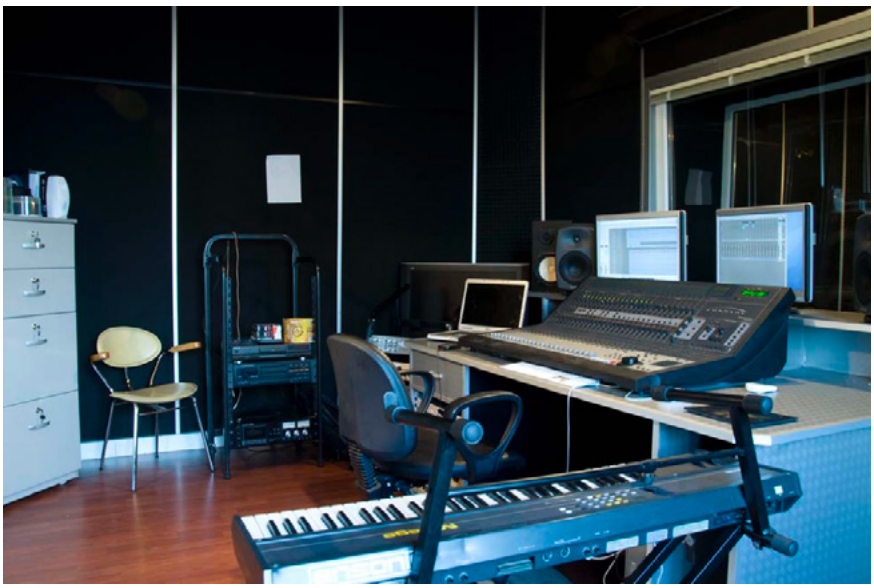

Figure 2. Kalan Stüdyo control room. Photograph by Ladi Dell'aira.

Like many studios, Kalan Stüdyo's studio-ness is marked by several features. The interior architecture is unusual: other kinds of workplaces don't have black fabric walls and double soundproof doors separating rooms. Some technological objects, like consoles or mic preamps, are only found in music or film postproduction rooms. However, not all of this technology gets used. The keyboard is almost never played. The Digidesign Control|24 console is a glorified volume knob and talkback button, used to impress record label owners and film producers but not even fully hooked up. The Avalon mic pre has been broken for two years since it's hard to get replacement vacuum tubes in Turkey; a SPL solid state preamp out of view does all the heavy work. The Genelec speakers were always on, the Yamahas less so. Two other important bits are invisible in these pictures: a Mac G5 computer with Protools HD3 cards, and a Lynx Aurora converter that converts everything between analog and digital. The poorly ergonomically placed mouse and keyboard was how engineers tactilely interact with the computer, and the mouse pad often fell off the desk since the desk was a bit too slippery. In the tracking room, looking at things from the studio musicians' point of view (Figure 3), we see the remaining essential technologies: the Neumann U87ai microphone, headphones, and a Behringer headphone amp.

Figure 3. Kalan Stüdyo tracking room. Photograph by Ladi Dell'aira.

Interestingly, the stories about the acquisition or transport of many studio objects got retold for years after the objects' initial socialization within a studio—stories that contributed to the objects transcending their origins as 'lumps of metal' and becoming cultural actors. I brought the SPL preamp with me from the US in 2005 and gifted it to Aytekin Gazi Ataş in 2007; it went on to figure prominently in much TV music production. The computer was brought and sold by a German-Turkish graphic designer to pay for a holiday visiting his family in Izmir and later was the subject of theatrical studio rituals (Bates 2016: 16). The mostly unused console was the centerpiece of ZB Stüdyo, where we all used to work before it closed in 2007 (it was never fully used there, either, aside from occasional playful antics around the so-called 'producer's knob'). Even though these pictures are somewhat meaningless without knowing the situated milieu, when connected with the stories of each object the pictures overflow with meanings: not just musical meanings, but stories about the circulation of objects and people across workplaces within Turkey and Turkish diasporas.

Therefore, I begin this recording studio ethnography not with the biographies of musicians, or a musical example, but with architecture, infrastructure and other kinds of technology, and with the range of ways that those who work within Istanbul's recording studios interact with and build narratives around these particular technologies. Not only are some technologies used more than others, but certain objects cohere together into systems for accomplishing certain tasks. In these pictures, ignoring the non-used technologies, most of the significant objects are used for *transduction*: the loudspeakers or headphones transduce electrical energy into acoustic sound, and the microphone transduces acoustic sound into electricity. Both types of transduction work together as a system I term *technologies of audition*—technologies that allow both the human participants and the computer to 'hear' what's going on. But beyond the computer's hearing, the computer is more routinely engaged with the storage, manipulation, visualization, and sonification of *data*. Audition and data are of course not specific to Turkey: every 'digital' studio depends upon them. But what I hope to articulate is the push and pull between these phenomena's dual natures: as a priori empirical properties, and as locally specific cultural negotiations. Moreover, situated human-technological encounters with these two assemblages changed the practice and sound of music (Bates 2016).

Encountering Turkey's studios

First, a bit of context about how this research came about. I've been involved with performing music from Turkey since 1992, and engineered several albums for Golden Horn Records, a Turkish-American label. This opened up opportunities to work for Kalan Müzik, Turkey's largest and most successful independent label. I was the house engineer for ZB Stüdyo from 2005-2007, and did projects at several other Istanbul studios during that time and intermittently for the following six years. My primary data set encompasses the production process for 16 commercially released albums, 3 feature films, the score mixing for 48 episodes of a top-rated TV series, and a number of one-off projects for TV, film, and advertising.

My main role was as an audio engineer, meaning I recorded musicians, edited and mixed recordings, and/or did the final stage of mastering engineering. I also contributed as a session musician to several of the projects, either singing or performing oud or keyboards. But my role went beyond that, as was the case for other audio engineers in Turkey. I was a go-to guy for Macintosh repair and software installation, and hard drive data recovery (Istanbul's power grid was unstable, so computers regularly broke or caught on fire). This brought me into contact with the underground of software piracy and grey market computer parts, but also enabled me to see how Turkish engineers dealt with and organized data. What did they keep, what did they care about, and what didn't matter to them? How did they name files and organize sessions, and did they keep or overwrite older versions of song arrangements? Additionally, as part of my apprenticeship at ZB Stüdyo I learned about making and serving tea, the ritual that holds together the recorded music sector of Turkey. I also helped a friend design and build a studio in an apartment building, which introduced us to Istanbul's architectural acoustics trade and electrical contractors. Analyzing these heterogeneous business-to-business relations, and not just the music-aesthetic outputs that make us regard recording studios as an exceptional site, became essential for understanding the studio as a workplace.

As a result of attempting to attend to the variety of experiential domains that we reduce to something called a studio,' in my workplace ethnography only some of the work and my observations of it directly dealt with making 'music.' Consumers of recordings would think about songs, song meanings, and individual or collective emotional-affective responses to songs, which is certainly part of the cultural life of recorded music. In contrast, twenty-first century studios, centered around computer-based digital audio workstations (DAWs) and situated as one node within multi-sited production workflows, are in the business of producing, storing, manipulating and selling *data*—which is also part of the cultural life of this music. While consumers hear what sounds to them like a cohesive, real-time performance of a musical ensemble, studio work is much more characterized by its nonlinearities and recontextualizations, and its dependence upon myriad kinds of technologies, including musical instruments but also computers and an absolutely essential, massive infrastructure that nonetheless usually goes unnoticed.

Situating Turkish studio workplaces

Aside from working in studios I researched two archives: the official documentation of early Republican era folksong collection (1920s–40s), and architectural and labor history. The history of the repertoires that today are described as *gelenksel* (traditional) or exemplars of *folklör* (folklore) contains a vibrant and controversy-laden discourse concerning the activities of folklorists and radio musicians. In fact, there was no widespread concept of 'traditional music' in Turkey that preceded the *aranjman / düzenleme* (arrangement) of the repertoires in question. Of course there *were* rural musics before that, but as in many countries the assemblage of a *national* archive arose from mining the countryside for folkloric resources (Bates 2016: 23), and the *arrangement* of these repertoires to better serve the primacy of nation-building work (Hobsbawm and Ranger 1983). This national project is ongoing; folklore continues

its mining operations, and songs are added to 'the' archive.[1] Therefore, an additional research question concerned the extent to which the practices I observed in Istanbul's digital studios might continue prior modes of arranging tradition. What aspects of folkloristics transferred from other domains to the studio?

As was the case with neighboring Egypt (Fahmy 2011), in Turkey radio and recorded audio were more important than 'print capitalism' (Anderson 1991) in nation-building. Turkey's local recording industry began in 1897 (Ünlü 2004), and private radio broadcasts in the 1920s (Dinç, Çankaya and Ekici 2000, Ahıska 2010), but as often is the case with local cultural adoption and re-inscription of technologies (e.g. Akrich 1992, Zimmermann 2015), these technologies neither meant the same thing nor were used in precisely the same ways as in the nominal countries of technological origin. Radio and recordings became essential for a project that continues to this day: presenting a national music that inscribes the locality or regionality of the repertoires in question, which as a result maintains a national awareness of local and regional cultural differences.

In the 1950s, with the opening of the Istanbul Manufacturer's Bazaar (İMÇ), a series of *blok* (blocks) each housing a separate trade, the recorded music industry appeared to adopt organizational structures from other craft guilds and clustered trades (Figure 4). İMÇ is located in the Unkapanı neighborhood, whose name (*un+kappan*, roughly 'flour exchange') indexes the neighborhood's history as the former Ottoman Empire center of wheat flour milling (Yi 2004: 177). Today, the other five blocks in İMÇ are inhabited by the wholesalers of laminate fake wood floor tiling and fabrics used for pious Muslim women's fashion, amongst others. Unkapanı, as the recorded music guild, is situated literally on the same ground as historical guilds.

Figure 4. The music industry at Unkapanı. Photograph by author.

In fact, the clustering and guild-like dynamics were by design and a mandate provided to the architects of the building, Doğan Tekeli and Sami Sisa, two of the most important post-WWII industrial architects of Turkey (Tanyeli 2001). Their design was inspired by contemporaneous Russian brutalist architecture, but applied towards creating U-shaped buildings that constituted an internal panopticon, enabling all members of the guild to see what everyone else was doing, while the frontage signs advertised the guild to passers by. From the late 1950s, most of the businesses related to recorded music, from the record labels to artist managers

1 Another heterogeneous set of technologies enables authenticating new folksongs to be added to the official register: since the late 1990s this consisted of low-fidelity microcassette dictaphone recordings that alongside a *derleme fişi* (collection record) facilitate an expert-produced transcription of the song lyrics.

to recording studios to media suppliers to the company that controlled the monopoly on wholesale distribution, were housed in this one building.

When examining the guild-like structures of recording studios, I was curious how Ottoman-era craft guilds organized labor around the central machine that did work. One of my theories is that the computer has literally come to occupy the same place as the main production machine that would be the focal point of any guild-based business. It could be a DAW, a flour mill, or a loom. The architectural and social design of industry clusters in Turkey encourages resistance to innovations, but also ensures that when innovations do take hold they can spread very quickly (Öz 2002). Whilst in other countries tape-based recording machines were gradually and incompletely displaced during the adoption of computer-based DAWs such as ProTools after their introduction in 1992, due to the retold biographies that accompany specific technological objects I was able to 'meet' the objects described as the first and second ProTools computers brought into Turkey in 1999—and learned alongside this that by 2000–1 almost all studios had abandoned tape formats and switched to computers running ProTools or Cubase.[2]

From the 1970s, studios started to be built elsewhere in Istanbul, partly to escape the centripetal force of Unkapanı and to facilitate the production of new musical styles (Stokes 1992). The sector was adversely affected by the 1980–84 coup, partly since many musicians and label owners who had supported leftist causes or Kurdish rights were jailed or 'disappeared' by the military junta, while others fled to Europe (Blum and Hassanpour 1996). The 1991 liberalization of the sector gradually opened up the possibility for non-Turkish language song recordings, making possible a latent desire (see later) to produce music in several of the dozens of non-Turkish languages spoken in Anatolia. Despite that, artists continued to be jailed or fined or harassed for recording in Kurdish, Zazaki, or Armenian languages well into the 2000s.

The recorded music industry in Turkey depends upon an ubiquitous and codified division-of-labor, where each category of participant has different economic and social motivations (Bates 2008: 164–80). Although until the early 1990s musicians would perform together in the studio,[3] from the 1990s onwards a single musician comes in and contributes one or more recordings on top of existing tracks that had been recorded previously by other musicians. An album comes about when producers are approached by artists or bands, and producers assess which album arranger(s) they think will best be suited towards accomplishing the task. Producers who own record labels finance albums and take on all the risk, and also are the only party that stands to profit if an album is successful. The arranger decides upon the engineer(s) and studio musicians, and manages the album budget. Even when bands (rock or otherwise) record, on most albums all the parts except the vocals are typically performed by specialist studio musicians.

Album artists hope their album will be successful enough to open up lucrative festival performance opportunities in Turkey and in Turkey's diasporic communities in Europe and North America. Arrangers have an incentive to maintain positive relationships with record labels, since they are dependent upon label referrals for work, and since a few well placed albums may attract the attention of film and TV producers and result in much more lucrative film and TV soundtrack work. Engineers have an incentive to maintain a positive relationship with arrangers, since arrangers are the sole determiners of whether engineers get work or not. They do this by working very quickly, and by successfully anticipating the aesthetic decisions of the arrangers. Studio musicians maintain their status within the sector by being always available for sessions (even at 3AM), and capable of performing their parts perfectly in no more than two takes. Although studio musicians and producers economically profit the most from album work, they ultimately have the least say in what the albums sound like. By the time the song has been edited and rearranged and processed, studio musicians may not even realize that it they indeed had been a performer on it at all.

In many ways, Istanbul's recording studios became a new site for existing labor formations

2 Ali Tosun, personal communication, 12. Jul 2007; Metin Kalaç, interview, 10. Apr 2007.
3 Eyüp Hamiş, interview, 11. Nov 2006.

to be enacted, and for novel technologies to be incorporated in culturally specific manners. I write about *traditions of work* within Turkey, and about a *digital tradition* that governs how new recordings are made of repertoires derived from folkloric resources—concepts I find more productive than maintaining the myth that there is an actual stable *thing* called 'traditional' or 'folk' music (*geleneksel halk müziği*). That said, these professional and economic considerations are not especially surprising in comparison with studio cultures elsewhere. They fail to explain those aspects of the ethnography of Istanbul's recording studios that might tell us why the recordings sound the way that they do, why and how certain technologies are used or not used, or the relations between technologies and users and sound.

Resituating Turkish studios: material semiotics

Earlier we encountered a few technologies at Kalan Stüdyo, but so far we don't know much about them. Space prohibits full accounts of all of them and their encounters with people. That said, I would like to return to two specific assemblages. With that in mind, let me reframe the protagonists of our story:

- Architecture and architectural acoustics
- Audio engineers
- Technologies of audition, particularly microphones, their close cousins headphones and loudspeakers, and the amplifiers/preamplifiers that power them
- Studio musicians
- Acoustic instruments, including several dozen Anatolian folk instruments, modernizations of these, and some foreign 'distant relatives'
- Arrangers
- Computers, particularly the DAWs at the center of studio life
- Folkloric resources as a source of musical ideas
- Data
- Time

To be clear, none of these were arbitrarily chosen to be in our cast of characters. I'm certainly not saying 'we have to pay attention to architecture' just because it exists! Rather, after my own extensive observations, fieldnotes and interviews, which led to yet more observations and fieldnotes and follow-up interviews, alongside photographic and audiovisual analysis of studios and related milieus, these actors emerged as the key ones within a realistic account of how studio production actually manages to happen in Istanbul. You might wonder why 'artists' and 'audience' are missing. This, too, is not arbitrary, but rather related to the idiosyncrasies of Turkey's recorded music industry, where album artists usually have considerably less control of their own albums and rarely come to most of the recording sessions, and where audience reception and critical feedback makes very little impact on the stuff done in studios. During my research I did interview and work extensively with album artists/soloists, and conducted several reception studies and focus group interviews, but I consider this data to be irrelevant since it didn't impact the work done in studios. That irrelevant data *is* relevant for telling other stories—just not the stories about *studio-sited* production.

My interest, moreover, is in when the encounters between three or more of the types of actors I just delimited led to the production of particular audible aesthetics *and* meaningful effects in the world. In other words, when did some complex phenomenon involving people and material objects and digital objects result in a change both in the sound of music and in how people do the things that they do? In previous publications I have explored a number of these encounters, but will highlight two here. The first concerns time-based problems that emerge from the recording process which I group together under the rubric of *latency*: attending to latency necessitates attending to empirical measurements of both the timing aspects of musical events and of technologically imparted latencies, to invariant aspects of human auditory perception, to the details of musical-performative moments, and to sociopolitical

phenomena that affect what can be performed in a studio. The second concerns an ontological shift during film/TV score production workflows from thinking of the creation of completed, discrete *songs* to the creation of flexible *data* that can be reworked in short notice dependent upon decision-making that happens elsewhere in the film production process. The data-ness of recording work also became significant in distributed production environments where the difficulty of transporting data between sites necessitated an adaptive set of embodied, material practices for overcoming sociopolitical obstacles.

Latency

One of the main problems of the studio concerns a certain amount of time delay within actions, or between an action and the cognition of the sound that results from that action. When studio musicians record a part, their direct interaction with instruments, with technologies of audition (headphones, microphones), and their indirect interaction with computers results in particular time-based problems which I group together under the term 'latency' (Bates 2016 134–8). The ability to partially overcome the problems of latency is the number one *technical* skill that distinguishes studio musicians from stage or amateur musicians. I identified six kinds of latencies at play within Turkish studios, each with their own distinct time scale, some of which are locally specific and others which are an a priori of studio-sited music. Two or more of these may be added at any point in time, contributing to a cumulative latency. Latency, here, relates to the following four empirical phenomena:

1. AD-DA conversion (1.5–6ms each direction with available technology in the mid 2000s). While analog recording/playback is effectively instantaneous (hindered only by the speed of electricity), it takes a bit of time to get from electrical signal to computer-storable digital data, and a similar amount of time to convert from data back to an electrical signal that can be transduced into sound.
2. Sound moving through air (1–2.7ms or more from instrument to microphone based on normative mic placement distances in Istanbul, 5–16ms for sound in a control room to travel from speaker to listeners). Since the speed of sound in air (1120 ft/sec) is considerably slower than the speed of electricity, there is a lag from sound production to transduction, whether considering the time for the sound of a voice or acoustic instrument to travel to the microphone, or for sound playback to travel from speakers to listening ears. Here, the audible and perceptual effect comes from the effects of architecture in determining where human and technological objects are placed in the room (Bates 2012). This only considers direct sound transmission, however; architectural acoustics and reflected sound create reflections that potentially increase the perceived latency of transductive processes.
3. The relation of music part timing to groove (Danielsen 2010) and concepts like swing and expressive microtimings (1–45ms). But why is swing a form of *latency*? It becomes so in studios due to the consistent use of click-tracks, and the default utilization of a beat/subdivision grid to *visualize* event timings. More specifically, when editing parts, I noticed that not only engineers but musicians and arrangers would visually notice when a part *looked* like it wasn't 'on the beat' (typically being a bit behind) and be required to make a choice of whether or not to 'correct' the potentially aberrant timing. Some of these discrepancies, however, may have indeed been intentional and regionally appropriate performance gestures. Accurately measuring musical event timing is complicated in that the perceived attack of an event, the P-center (Danielsen et al 2019) may occur quite some time after the initial sound onset, depending upon the frequency of the sound and the length and shape of the sound's attack and release.
4. The relation of sound onsets between two nearly identical parts when double-tracking (5–35 ms).

All four of these are quicker than the so-called shortest musical duration, between 60–100ms.[4] However, this is compounded by another form of latency: the human-cognitive phenomenon of perceptual lag, which was researched extensively by Benjamin Libet and others and sometimes termed the 'missing half-second.'[5] This is the nearly 500ms gap between the raw sensory *perception* of an unexpected stimulus, and the human *cognition* of what that stimulus was or means—a gap which the brain pretends doesn't exist through a process of 'backward masking' (Libet 2004: 51). In other words, performance in the studio is always in the past: delayed by digitization, delayed by air, delayed by swing, delayed by overdubbing, and delayed by the time it takes to know what just happened in the studio. There's a sixth form of latency which is considerably longer and more of a sociohistorical phenomenon. Here I'm thinking of long-term latent desires; for example, the long-standing and until comparatively recently unrealized desire to create Laz and Kurdish-language popular musics.

Beyond the details about learning an instrument, performance practice and repertoire, for a studio musician to master their craft requires a particular overcoming of the temporal problems imposed by their own bodies, by transductive technologies and mediums, and by AD and DA converters; the relation between their always latent musical part with pre-recorded ones stored in the computer as data; and deferred social relations between the musician and other players who made performance decisions that constrain what the studio musician can or should perform now. This is compounded by sociohistorical latencies, including large-scale historical barriers towards being able to perform certain kinds of music at all.

So, what does latency *sound* like? While in many situations the effects of studio-sited latency get engineered out, we can hear the first, second, and fourth forms of latency at play in this video (Video Example 1), which is a clip of a Turkish studio string orchestra called Kempa performing the pre-composed intro to an *arabesk* pop song. This is the second pass through the melody; in total, they overdubbed the 'same' section four times in order to create the illusion of 16 musicians, rather than the 4 that you see here. Try to pay attention to the relation between the sound you hear and the bowing and fingering techniques.

Link » Video Example 1.

Kempa overdubbing a 'string partition'

Part of what made Kempa so desirable was their peculiar approach to overdubbing, something which is visibly obvious to anyone trained in Western orchestral music contexts and who is used to the appearance of synchronized bowing. Although these are trained and accomplished classical musicians, for *arabesk* and Turkish and Kurdish pop a Western string orchestra sound is not the sound ideal, necessitating a different performance practice. The timing between parts needs to be a bit off, but not *too* far off. In fact, in most Turkish overdubbing scenarios, the desired note onset gap appears to be between 5–35ms (Bates 2010). Similarly, the vibrato depth and speed needs to vary a bit, but not *too* much. Kempa musicians deliberately de-synchronize, and change their bowing with each pass! This makes a kind of chorusing effect, but the specific temporalities impart a distinctive local sound that other musicians lack the skill to produce. As a result, Kempa was very much in demand and commanded a top rate for their studio performances.

Let's contrast this with an example where latency became a problem that required correction. When recording one of the several Black Sea regional albums we did, a well known but young *kemençeci* (*kemençe* player) performed some *altyapı* (backing tracks), but despite them being sufficiently in tune and seemingly with the beat, the arranger and singer were upset, calling the musician *tembel* (lazy). To me, the performance sounded a bit *düzgün* (straight), but

4 A sound repeated less than 60ms after its initial onset is not typically perceived as a separate event. This is why humans can combine their sensations of the hundreds of early reflections and reverberations of a sound in an acoustic space into the perception of a singular event. 100ms represents a widely mentioned (although inaccurate) shortest duration of successive musical events, approximately a sixteenth note at a tempo of quarter note=150bpm.

5 See also Brian Massumi's use of Libet as an inspiration for his concept of the virtual (2002: 29-31).

I thought I could have easily edited things by chopping up the audio and shifting its timing in relation to the grid to suit the aesthetic ideals. But as a matter of principle, the arranger, in consultation with the singer, decided to hire a more experienced studio musician to redo the parts. The *tembel kemençeci* complained about the headphones and the volume of the click-track, but blaming the technologies of audition didn't save him the job.

For the first three notes of the *tembel* part (Figure 5) the *kemençeci* began the bowing motion nearly 'perfectly' on the beat (in succession, the initial attack was -4ms, -12ms, and 0ms compared to the metronome), but the P-center of their *kemençe* notes was considerably later (30–45ms) than the initial sound. By synchronizing bow motion to the incidence of the click-track, all the notes sound a bit behind the beat. In contrast, the initial onsets of the same notes for the 'correct' *kemençe* part were -20ms, -26ms, and -19ms. Additionally, the gap between the sound onset and P-center for the correct *kemençe* part spanned a wider 22–45ms range. The studio *kemençeci* bowed *in anticipation* of the metronome, and also was able to produce certain note events with a quicker attack. Interestingly, by the end of the take the *tembel kemençeci* was occasionally correctly anticipating the metronome and achieving some notes with shorter attacks—but couldn't do it consistently.

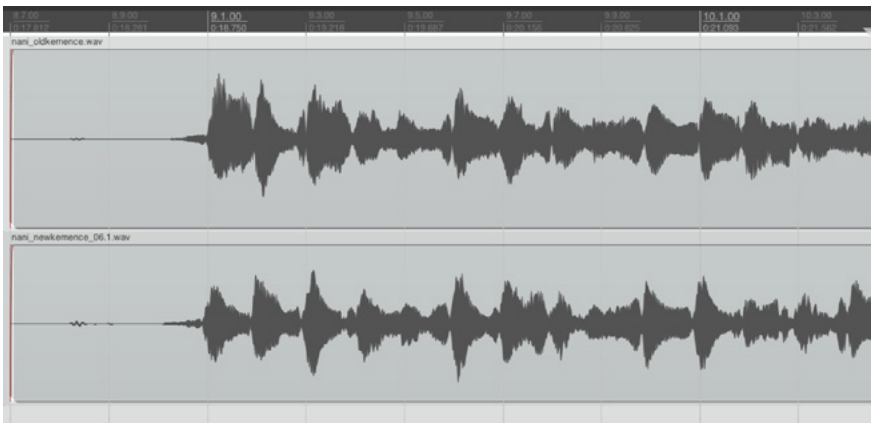

Figure 5. *Tembel* (top) and correct (bottom) *kemençe* parts.

Of course, not only in studios are there human cognitive delays and sound delayed by moving through air. Rather, the specificity of performing in the studio requires the overcoming of this *particular* set of latencies, and coping with the lack of visual cues to assist performer synchronizing as you might have during a live ensemble rehearsal/performance. Several of these latencies are not fixed: a studio musician might experience 3ms total digital conversion latency at one studio, and 12ms at another. While the Kempa string sound leverages a particular set of event offsets, other ensemble effects (e.g. percussion multi-tracking) entail different latencies depending upon the musical style, the studio and/or the preferences of the arranger. A good studio musician can overcome not just one set of latencies, but the *variability* of latencies experienced in different studio environments—which, in the case of the correct *kemençe* part, necessitated anticipating the click-track. Latency might begin as a studio problem, but within local sociomusical contexts can be leveraged to define audible aesthetic ideals (Wilson 1999).

Data and distributed production

As consumers, we're not always aware of the data nature of digital music, nor should we be. After all, if you put a CD on your stereo, or listen to an mp3 on your phone with headphones, it's not radically different than listening to an analog record or tape. Just because technically speaking digital audio is encoded data it doesn't always makes sense to argue about its ontology that way. And despite the fact that when you do a computer-based recording you end up producing a bunch of files stored on a hard drive or SSD or CD-R, studio recording is not always, more than any other 'kind of thing,' best thought of as a data process. However, in two situations the data nature of what we were doing became central, maybe even more so, at least temporarily, than the musical value of the data.

Grup Yorum is one of the top selling musical artists in Turkey's history, since their emergence in 1985 selling between 15–20 million recordings. However, due to their radical socialist politics, they have never been on Turkish radio or TV. Despite a long history of members being jailed for their activism, and having concerts shut down or raided by the police, they continue to be a significant voice for worker's rights and against the prison-industrial complex and imperialism. I worked with them as an engineer and studio musician on their twentieth-anniversary album, *Yıldızlar Kuşandık* (Kalan, 2006). It was a high budget project that consumed hundreds of hours of studio labor in several studios located in Turkey and Germany (Bates 2014).

The nature of that album production was so striking to me, since it illustrated the considerable divergence between some of the dominant discourses we have about the mobility and speed of data flows and digital technologies, and the on-the-ground situation in particular national contexts. One complication with making the album was that one group member was in Germany and unable to come to Turkey to participate in production, most of the band was in Istanbul and unable to leave Turkey, while other individuals important to the group were currently incarcerated in high-security prisons. Yet, the egalitarian ethos of the group demanded that these individuals outside Turkey and inside Turkish prisons needed to contribute to albums, either through writing lyrics, performing parts, or providing approval that the mix of a song was appropriate for a Grup Yorum album.

More specifically, I mapped the transport of physical objects that contained digital data: across borders, and in and out of the supposedly impenetrable F-type prisons. Rather than a smooth and speedy flow of media and ideas through a mediascape or ideascape (Appadurai 1991), for this album production the flow of data was intermittent and precarious. Instead of being massless and instantly accessible at a global scale, the digital data we were attempting to circulate was weighed down by hard drives, flash memory, mp3 players, and often corruptible CD-R and DVD-R media; only through trafficking data across many sites of production and critical audition (Figure 6) could the group's musical and political ambitions be realized. *Yıldızlar Kuşandık* came not from *a studio*, but rather resulted from *distributed production*. Considering that Turkish studio projects are already characterized by disjunctures and non-linearities, this album would seem to be a logical progression of latent sociotechnical formations. This does impart audible effects. On every song, we hear, even if subtly, the sonic signature imparted by a multiplicity of differing acoustic environments and transductive assemblages (microphones, preamps, cables), and the different social dynamics of studio labor result in differing approaches towards the recording and subsequent editing of studio musician performances.[6] The public-facing representations contained on the album (through album art and song themes) are similarly displaced and heterogeneous, juxtaposing depictions of prisons, of victims of the Iraq war, of *çepki* line dances done in Southeastern Anatolia, of Aegean regional legendary folktales, in addition to the unavoidable representations of both the arranged traditions of Istanbul's studios and the related arranged traditions of German-Turkish studios. Distributed production, defined here as the simultaneous co-production of data in

6 An example of the sonic result of distributed recording used in *Yıldızlar Kuşandık* can be heard in the song 'Davet': https://www.youtube.com/watch?v=3MIHpsmbJfs (last access December 28th, 2023).

disparate sites that is eventually aggregated into what becomes perceived as a singular object, was not just a technical problem that left 'the music' untouched, but came to inform the very design of the album itself. But we have a tension, as the artistic goal was certainly *not* to stage encounters with data, but rather to convey a socialist political message despite the ontological, technological, and infrastructural obstacles.

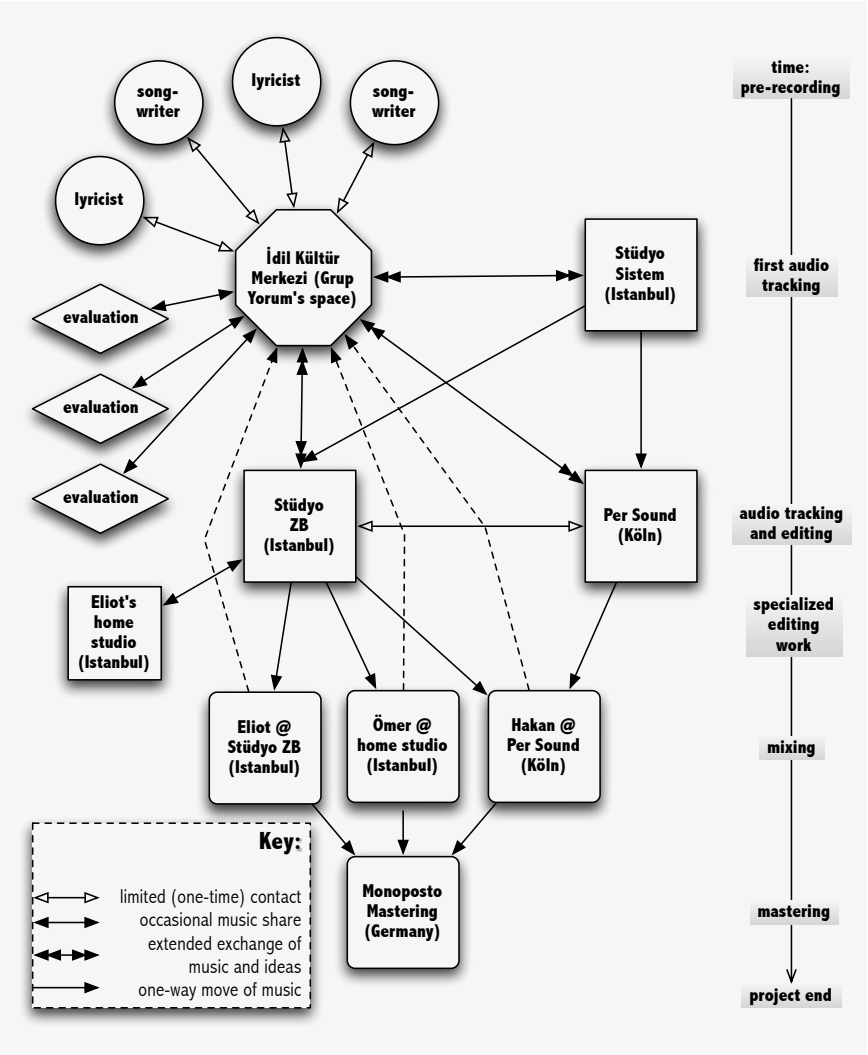

Figure 6. Grup Yorum distributed production.

In a contrasting example, the data-ness of the production was more explicitly useful for the arrangers. Whereas the album productions I worked on tended to converge relatively early in the production process on a semi-stable idea of what 'the song' was, film and TV music production was indeterminate until literally the last moment (Bates 2018). Soundtrack producers need to produce gross excesses of sonic fragments, all while meeting quite a lengthy set of data specifications. They usually go through many rounds of revising the data chunks, with very little time to do so. The overbearing presence of and problems with 'data' that shapes the encounters between the music team and the film production team leads to a considerably different production process than musicians would otherwise be inclined to use. It shapes the nature of the encounters between engineers and musicians and computer-based technologies, and shapes the demands made of the musicians' instruments. The result, in many situations, is a workflow entailing the prolific creation of sound effects that are neither entirely musical not wholly unmusical. And this approach towards using the arrangement of Anatolian instruments to produce nonmusical sound effects folds back into album produc-

tion and seeps into stage performances of so-called folk and art musics.[7] A whole new *kind* of sound became ubiquitous music (Kassabian 2013), one that arose, first and foremost, from problematic encounters between studio professionals and data.

The film I explore here, *Beynelmilel* ('The International'), grapples with the human tragedy of the 1980 coup d'etat and drastic crackdown on leftist movements in a region of southeastern Turkey whose population is predominantly Kurdish. It is an example of a *dönem filmi* (era film), a twenty-first Turkish feature film genre consisting of semi-fictional explorations of major political events in Turkish and Ottoman history. *Beynelmilel* was one of the top 10 feature films of 2006 in Turkey, and won nine awards, including the Thessaloniki award.

Music is central to the film's narrative, which deals with a group of local wedding and dance music musicians who, following the military junta takeover of the town of Adıyaman, are forced into becoming a military band performing for military functions. It roughly chronicles events in the life of Sırrı Süreyya Önder, one of the film's co-directors, who once was a semi-professional *cümbüş* performer, but is better known today as a parliamentarian helped start the Gezi Park environmental-political protests of 2013. Some of the complexity of making music for the film came from aesthetic differences between the director Önder, and the hired arrangers Aytekin Gazi Ataş and Soner Akalın. The arrangers quickly became aware that not only would we be asked to repeatedly change the instrumentation of particular cues or scenes, but would need to change the duration and synchronization of the sound for these cues. The need to produce dozens of derivative versions, and to quickly concoct yet more derivatives if need be, led to a peculiar compositional and arrangement process, entailing the excess tracking of instrumental parts, alternates and variants (Bates 2016: 208–220).

I want to provide some sense of the scope of this labor, and use it to make an argument about the ontology of the film's soundtrack. For *Beynelmilel*, the soundtrack generated 70.8gb of data, 21,286 audio files (which only includes the material used to create the soundtrack and instrumentally derived sound effects, and doesn't include the thousands of files for dialogue, foley, multi-channel mix stems and DTS encoding). Over the course of three weeks running around the clock, I worked as the scoring engineer with the two arrangers to record over 150 distinct instruments, creating 40 musical motifs and instrumental effect motifs that were used in the final soundtrack and 78 that weren't. There were up to 13 variants of some of these motifs. The original film theme (which didn't end up being used) alone was built on 307 audio recordings, but even the simplest underscoring bits contained over 200. Each one of these discrete recordings represents a specific moment in time when a session musician within a sociotechnical context performed a new part above a mix-in-progress—often responding to or embellishing audible cues that were subsequently erased. Each performative moment captured as a singular chunk of audio data, therefore, implies a complex temporality – responding to prior performances, and influencing subsequent ones, not to mention the expressive microtimings and audible latencies within and between the actual performances themselves.

One of the innovations that Aytekin and Soner brought to Turkish film, both through their prior work with the performing ensemble Kardeş Türküler (who created the score for one of the first *dönem* films, *Vizontele* (2000)), and in their TV and film scoring work, was the use of character-specific leitmotifs. While this hadn't been a feature of Turkish soundtracks during the 1970s heyday of the 'Yeşilçam' era Turkish film industry (Kytö 2013), by 2006 their use was standard. For *Beynelmilel*, which follows the evolving political and romantic relationship between Gülendam and Haydar, each needed a leitmotif, and there needed to be a passage symbolizing their shared affection. The three leitmotifs were initially created in a single Pro-Tools session as three sections of a contiguous musical work. The work had been timed to the visuals of a key scene that introduced these characters and their relationship. A wide variety of instruments were enlisted to make this, including moments featuring violin, *kaval*, *lavta*, *buzuki*, clarinet, *duduk*, *rebab*, and/or *cümbüş;* a battery of percussion; and numerous *renk* (color) parts

7 For example, many art music groups performing at Istanbul's top concert halls (e.g. CRR) started in the 2000s employing percussionists to produce sound effects consisting of ocean drums, bell trees and the like, and the same became part of the televised TRT folk music orchestras.

played on guitar, *saz*-family instruments, electric bass, pizzicato viola, and mandolin.

None of that provides evidence for a shift to a data conceptualization, though. To do that, we need to analyze a screenshot taken from the ProTools arrangement window at the moment when the final musical cues were exported and sent to the film producers (Figure 7). There, we find evidence of all kinds of use of the non-linear editing capabilities of DAWs. Because the cue changed in duration several times, musical bits had to be cut out of or added to the leitmotif. Rather than providing evidence of contiguous musical performances, we see that every single part (except the overdubbed second track of pizzicato strings) was cut in many places, and bits copied and pasted around, or slightly shifted earlier or later in time to visually match up with the timing of previously recorded parts (correcting latency problems). Five tracks of percussion are greyed out; they had been made for the Haydar part of the leitmotif but later were muted—but not deleted outright, as was often the case, suggesting a worry that they might need to be brought back. The waveform view of the DAW provided the engineer and arrangers considerable *information* about these recorded samples that enabled several kinds of operations that minimized the need for critical audition.

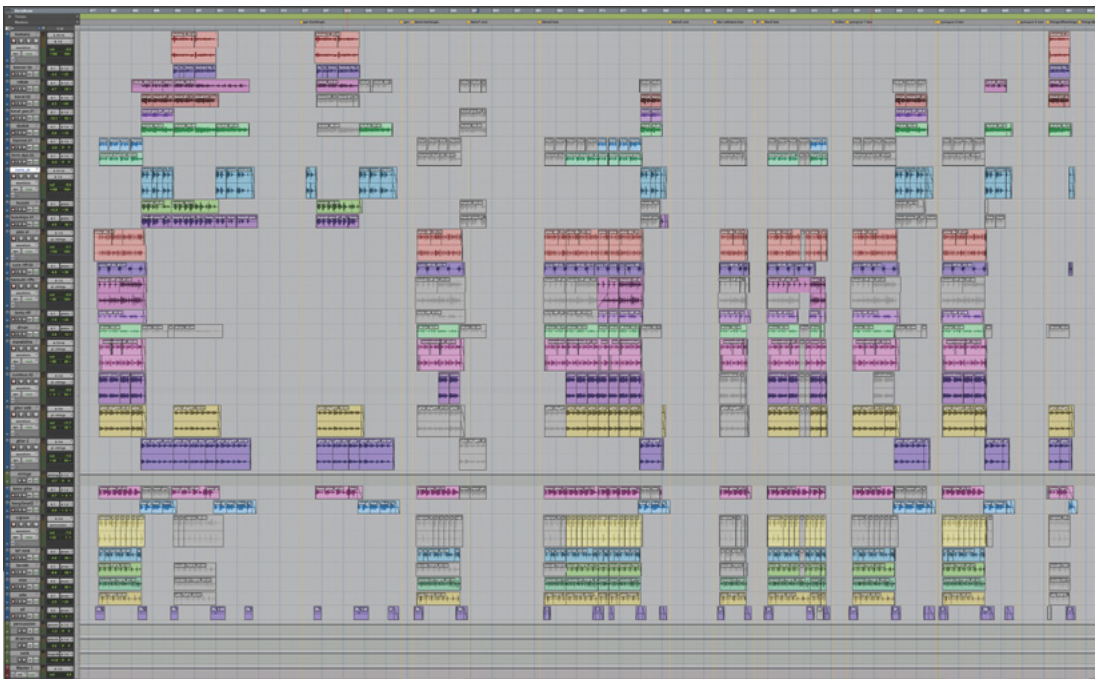

Figure 7. Editing window overview for the *Beynelmilel* composite leitmotifs.

Moreover, this musical work is no longer singular: the session contains this (highly modified) 'original' along with 10 variants, all of which were obviously copy-pasted from the first complete passage and then edited down—sections removed, other parts deleted or muted, and new bits recorded on top. One of the derivative works is not a musical work at all but simply the last note of the composite leitmotif, in other words a polytimbral D overwhelmed by supporting percussion instruments that added an instrumentally produced *tuş* ('touch,' meaning foley sound) to some moment in the film.

Encountering the session in isolation from the production workflow through which it was made, however, misses several important points. As I hinted at, much of the process of making derivatives or adjusting versions was visually, not audibly driven. The location of musical accents was determined by creating markers at specific video frames, and the colored blocks that represented sonic ideas were visually aligned with the markers. With very little time to make modifications to the many derivatives, some decisions were expedited by looking at the session and seeing that if we muted two tracks and unmuted one we'd probably get a sufficiently different sounding leitmotif variant. It wasn't just the music team that worked this way, however, as after we had carefully created all these eleven bits that lined up with video

cues, we learned that the sound team, on behalf of the film's producers, did yet more playing around, in several cases moving leitmotifs specific to one character to a scene which was perceived (visually, perhaps?) as having a sonic deficiency, but where the sound no longer corresponded to the correct character. The ability to visualize music as waveform data, then, produced many knock-on effects, ranging from potentially increased efficiency in making music, to the ability to make non-musical sound out of music, to the ability to recontextualize visualized sonic data without regard to its narrative meanings.

A beginning in the form of a conclusion: methodological and technological assemblages

I encountered a few key problems during my research in Istanbul, but they are not just specific to Turkey. They affect recording production everywhere, and by extension other modes of professional production labor. I will explore one of these here. How do we distinguish between 'musical' and 'technical' activities and things, and correspondingly attend to questions around agency? The conditions of production in computer-based acoustic recording workflows, whether we consider the constraints imposed by studio architecture, or the grids and constraints imposed by software architecture, impose ideas and practices and aesthetics of technicity on all production participants. Was the production of eleven derivatives of the *Beynelmilel* leitmotif, accomplished primarily through judicious use of ProTools editing operations, a musical act or a technical one, and (aside from the positive reception of the film and its soundtrack) does it provide any analytical utility to inscribe the acts as being 'creative'? To what extent were the editing operations guided by the 'lock-in' (Lanier 2010) of ProTools, and the agency of studio participants limited by the scripts (Akrich 1992) embedded in the technology?

These are certainly not new questions for the social study of technological systems—they are at the heart of the distinction between the ANT (Latour 2005) and SCOT (Pinch and Bijker 1987) frameworks of science and technology studies. But music studies has so far not developed their own ethnographically informed alternative to importing methodologies such as these from other social science fields. Nor is it considered imperative that a music studies scholar would understand enough about the technological objects they encounter to be able to discuss with accuracy why they impart the audible aesthetic characteristics that they do, or how their very design affects the actions people do when using them. As Gilbert Simondon noted, cultural analysis—a key outcome of ethnographic study—is impoverished when it insufficiently attends to the 'human' aspects of technologies and 'banishes... technical objects into a structureless world of things that have no signification but only a use, a utility function' (Simondon 2017 [1958]: 16).

The need to attend to architecture, infrastructural technologies, instrumental technologies, bodies synesthesias & kinesthetics, musical notes, (non)musical sound, studio workflows, studio discourses, national discourses, and the Republic of Turkey in the early 21st century—this constitutes a *heterogeneous assemblage*. Yet, despite a nascent interdisciplinary concept of studio studies (Farías and Wilkie 2016), these aspects tend to be analyzed in isolation using *either* architectural criticism, material semiotics, ethnography, music analysis, discourse analysis, the production of culture perspective, grounded theory, ethnomethodology, or (Turkish) cultural studies (Bates and Bennett 2018). Attempting to assemble these competing and often contradictory methodological possibilities towards the problems of studios is an example of *method assemblage*.

It turns out, the heterogeneous assemblage and method assemblage index the same ethnographic problem! Recording production isn't just one kind of thing, and doesn't involve only one way that human beings engage with each other and with the material world in order to produce aesthetic products and effects. While showcasing this mess—and it really is a mess—is unusual within ethnomusicology or music studies, my own process for thinking through this comes most directly from science and technology studies, where, following scholars such

as Michel Callon and Bruno Latour (1981), scholars have addressed ethnographic complexity while minimizing purification. Andrew Pickering, for example, frames science as a *mangle of practice* (1995). Rather than disentangling the mangle, his goal, instead, is to understand how the mangle *itself* is productive of science. This relates to John Law's attempt to create a research methodology out of the idea of *messiness* (2004), which extends his prior collaborative work with Annemarie Mol that thematizes complexity (Mol and Law 2002). Finally, from Mol I borrow the idea of the *ontological multiple* (2002). The recordings I discuss here are to some actors an audible phenomena that becomes a personal emotional-affective response, to other actors are a form of data that needs to be processed or transported, and to other actors are folkloric resources that either contribute towards or hinder nation-building projects, amongst other goals. The recordings may be more or less successful in each of these missions, and that success can change over time. Studio technologies, too, constitute ontological multiples, depending upon whether an actor is directly or indirectly using them (Bates 2016: 159), or if the technology is off limits to them.

So how does the heterogeneous assemblage actually lead to the method assemblage? I'll briefly talk through the examples I explored today. The latency problem relied upon extensive empirical measurement: precise distances between mics and instruments, DAW delay compensation settings, and waveform analysis of event timing. Although latency is typically an infrastructural thing that is neither noticed nor commented upon, when latency became a problem it became discursive, especially when amateur musicians got something wrong (i.e., during malfunctions of the sociotechnical/sociomusical system). These latency failures created opportunities to discuss phenomena that would normally be ignored by both musicians and other engineers. Although you wouldn't know it if you only spent a few days at 'normal' recording sessions, it turned out that studio workers had thought a lot about latency, so my theorization is a consolidation of latent discourses supplemented by my own quantification of normative practices.

The data problem suggested a 'classic' actor-network approach towards following the actors in order to understand a 'material semiotics.' While the difficulties of moving data in materialized form between Germany, Istanbul and Turkish prisons is initially interesting as a historical curiosity, and the stockpiling of massive amounts of visualized sonic data can help us rethink the ontology of a film soundtrack, neither was my goal. Rather, they were ways into providing a pragmatic and realistic account of practices in the studio. While some of the style I've adopted for framing the data problem arises from my own engagement with European STS, I took my cue from participants within the recorded music sector for whom data nonflows also became problematic.

I've presented a story here based on studios in one particular place during a particular time. The cast of characters included infrastructure, audio engineers, technologies of audition, studio musicians, musical instruments, arrangers, digital audio workstations musical ideas, data, and time. Some of these kinds of actors, for example musical ideas or musical instruments, are relatively well documented in music studies literature, perhaps excessively, while others (studio musicians, studio infrastructure, or the role of data in production workflows) are barely discussed at all. We could tell a similar story about production in any milieu during any time period. And some of the actors may end up being very similar, in the case of computers in the studio.

But the nature of the story might need to change; the actors and characters might not be the same. Other actors take central stage in recording studio ethnographies conducted elsewhere: racial dynamics in Louise Meintjes' study of South African recording studios (2003), discourses about miscegenation and cultural cannibalism in Fred Moehn's study of Brazilian MPB recording (2012), and the politics of indigeneity and/or indigenous identities in the ethnographies of Oli Wilson (2014), Chris Scales (2012) and Beverly Diamond (2007). Doing a realistic, pragmatic analysis of production is a difficult task, since we can not assume that one set of factors will have exactly the same importance or behave similarly in all milieus. With a more sustained investigation of the materiality and digital materiality of the studio, and an increased attentiveness to the mess and complexity of studio assemblages, we hopefully will gain a richer ethnographic understanding of what happens in studios.

Acknowledgments

I would like to thank Giovanni Giuriati and Serena Facci for the invitation to present this work at the Fondazione Giorgio Cini, and for valuable feedback from the other presenters and the symposium attendees. I thank Ladi Dell'aira for her careful read of earlier drafts, and for the photographs included in this essay.

References

AHISKA, Meltem
2010 *Occidentalism in Turkey: Questions of Modernity and National Identity in Turkish Radio Broadcasting*, Tauris Academic Studies, London

AKRICH, Madeleine
1992 'The De-Scription of Technical Objects' in Wiebe Bijker and John Law (eds.) *Shaping Technology/ Building Society: Studies in Sociotechnical Change*, MIT Press, Cambridge: 205-24

ANDERSON, Benedict
1991 *Imagined Communities: Reflections on the Origin and Spread of Nationalism,* Verso, London

APPADURAI, Arjun
1991 'Global Ethnoscapes: Notes and Queries for a Transnational Anthropology' in Richard Fox (ed.) *Recapturing Anthropology: Working in the Present*, School of American Research Press, Santa Fe: 191–210

BATES, Eliot
2008 'Social Interactions, Musical Arrangement, and the Production of Digital Audio in Istanbul Recording Studios', University of California, Berkeley, Ph.D. Dissertation
2010 'Mixing for Parlak and Bowing for a Büyük Ses: The Aesthetics of Arranged Traditional Music in Turkey', *Ethnomusicology* 54 (1): 81–105
2012 'What Studios Do', *Journal on the Art of Record Production* 7
2014 'Music, Mobility and Distributed Recording Production in Turkish Protest Music' in Jason Stanyek and Sumanth Gopinath (eds.) *Oxford Handbook of Mobile Music Studies*, volume 2, Oxford University Press, New York: 339–60
2016 *Digital Tradition: Arrangement and Labor in Istanbul's Recording Studio Culture,* Oxford University Press, New York
2018 'Producing TV Series Music in Istanbul' in Samantha Bennett and Eliot Bates (eds.) *Critical Approaches to the Production of Music and Sound*, Bloomsbury Academic, New York: 81–97
2020 'Recording Studios Since 1970' in Simon Zagorski-Thomas and Andrew Bourbon (eds.) *The Bloomsbury Handbook of Music Production*, Bloomsbury Academic, New York

BATES, Eliot, and Samantha BENNETT
2018 'The Production of Music and Sound: A Multidisciplinary Critique' in Samantha Bennett and Eliot Bates (eds.) *Critical Approaches to the Production of Music and Sound*, Bloomsbury Academic, New York: 1–21

BLUM, Stephen, and Amir HASSANPOUR
1996 '"The Morning of Freedom Rose up": Kurdish Popular Song and the Exigencies of Cultural Survival', *Popular Music* 15 (3): 325–43

CALLON, Michel, and Bruno LATOUR
1981 'Unscrewing the Big Leviathan: How Actors Macro-Structure Reality and How Sociologists Help Them to Do So' in Karin Knorr-Cetina and A. V. Cicourel (eds.) *Advances in Social Theory and Methodology: Toward an Integration of Micro-and Macro-Sociologies*, Routledge & Kegan Paul, Boston: 277–303

DANIELSEN, Anne
2010 *Musical Rhythm in the Age of Digital Reproduction,* Ashgate, Farnham

DANIELSEN, Anne, et al
2019 'Where Is the Beat in That Note? Effects of Attack, Duration, and Frequency on the Perceived Timing of Musical and Quasi-Musical Sounds', *Journal of Experimental Psychology: Human Perception and Performance* 45 (3): 402–18

DIAMOND, Beverley
2007 '"Allowing the Listener to Fly as They Want to": Sámi Perspectives on Indigenous CD Production in Northern Europe', *The World of Music* 49 (1): 23–48

DİNÇ, Ayhan, Özden ÇANKAYA, and Nail EKİCİ (eds.)
2000 *İstanbul Radyosu: Anılar, Yaşantılar*, Yapı Kredi Yayınları, Istanbul

FAHMY, Ziad
2011 *Ordinary Egyptians: Creating the Modern Nation Through Popular Culture*, Stanford University Press, Stanford

FARÍAS, Ignacio, and Alex WILKIE
2016 *Studio Studies: Operations, Topologies & Displacements*, Routledge, Abingdon

GEERTZ, Clifford
1998 'Deep Hanging Out', *New York Review of Books*, October 22, 1998

HOBSBAWM, Eric, and Terence RANGER
1983 *The Invention of Tradition*. Cambridge University Press, Cambridge

KASSABIAN, Anahid
2013 *Ubiquitous Listening: Affect, Attention, and Distributed Subjectivity,* University of California Press, Berkeley

KYTÖ, Meri
2013 'Soundscapes of Istanbul in Turkish Film Soundtracks' in Claudia Gorbman, John Richardson, and Carol Vernallis (eds.) *The Oxford Handbook of New Audiovisual Aesthetics*, Oxford University Press, New York: 391–413

LANIER, Jaron
2010 *You Are Not a Gadget: A Manifesto,* Alfred A. Knopf, New York

LATOUR, Bruno
1993 *We Have Never Been Modern*, translated by Catherine Porter, Harvard University Press, Cambridge
2005 *Reassembling the Social: An Introduction to Actor Network Theory,* Oxford University Press, New York

LAW, John
2004 *After Method: Mess in Social Science Research,* Routledge, London
2009 'Actor Network Theory and Material Semiotics', in Bryan Turner (ed.) *The New Blackwell Companion to Social Theory*, Blackwell Publishing, Chichester: 141–58

LIBET, Benjamin
2004 *Mind Time: The Temporal Factor in Consciousness*, Harvard University Press, Cambridge

MASSUMI, Brian
2002 *Parables for the Virtual: Movement, Affect, Sensation,* Duke University Press, Durham

MEINTJES, Louise
2003 *Sound of Africa!: Making Music Zulu in a South African Studio,* Duke University Press, Durham

MOEHN, Frederick
2012 *Contemporary Carioca: Technologies of Mixing in a Brazilian Music Scene*. Duke University Press, Durham

MOL, Annemarie
2002 *The Body Multiple: Ontology in Medical Practice,* Duke University Press, Durham

MOL, Annemarie, and John LAW
2002 'Complexities: An Introduction' in John Law and Annemarie Mol (eds.) *Complexities: Social Studies of Knowledge Practices*, Duke University Press, Durham: 1–22

ÖZ, Özlem
2004 *Clusters and Competitive Advantage: The Turkish Experience,* Palgrave Macmillan, New York

PICKERING, Andrew
1995 *The Mangle of Practice: Time, Agency, and Science,* University of Chicago Press, Chicago

PINCH, Trevor, and Wiebe BIJKER
1987 'The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other' in Wiebe Bijker, Thomas Hughes, and Trevor Pinch (eds.) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*, The MIT Press, Cambridge: 17–50

SCALES, Christopher
2012 *Recording Culture: Powwow Music and the Aboriginal Recording Industry on the Northern Plains,* Duke University Press, Durham

SIMONDON, Gilbert
2017 *On the Mode of Existence of Technical Objects*, translated by Cécile Malaspina and John Rogove, Univocal Publishing, Minneapolis

STOKES, Martin
1992 *The Arabesk Debate: Music and Musicians in Modern Turkey,* Clarendon, Oxford

TANYELI, Uğur
2001 *Doğan Tekeli–Sami Sisa: Bir Kurumlaşma Öyküsü,* Boyut Kitapları, Istanbul

ÜNLÜ, Cemal
2004 *Git Zaman Gel Zaman: Fonograf—Gramofon—Taş Plak,* Pan Yayıncılık, Istanbul

WILSON, Oli
2014 'Ples and Popular Music Production: A Typology of Home-Based Recording Studios in Port Moresby, Papua New Guinea', *Ethnomusicology Forum* 23 (3): 425–44

WILSON, Olly
1999 'The Heterogeneous Sound Ideal in African-American Music' in Gena Caponi (ed.) *Signifyin(g), Sanctifyin', & Slam Dunking: A Reader in African American Expressive Culture*, University of Massachusetts Press, Amherst: 157–71

YI, Eunjeong
2004 *Guild Dynamics in Seventeenth-Century Istanbul: Fluidity and Leverage,* Brill, Leiden

ZIMMERMANN, Basile
2015 *Waves and Forms: Electronic Music Devices and Computer Encodings in China,* The MIT Press, Cambridge

Guitar Song Composers from Botswana and Malawi: from Live Performance to Recording Studio and Back

Alessandro Cosentino

Introduction

At the beginning of the 19th century, European record companies such as Gramophone or Odeon used to record African musicians while they were visiting Europe since there were no branches of international record labels or independent studios in Africa. In December 1907, the Gramophone Company recorded a delegation of Swazi chiefs in its studio in England who performed six hymns by 19th century composers David Sankey and Dwight Lyman Moody (Chandler 2002). These hymns are among the first examples of African music recorded in the studio for commercial purposes.

In 1912 the Gramophone Company decided to make its first commercial recording sessions in Johannesburg and Cape Town thanks to a 'portable field unit' (Bender 2019). Sales of these recordings had a great success on the South African market, which is also why Eric Gallo established the first South African independent record label in 1932 in Johannesburg, i.e. the Gallo Record Company together with Gallo Recording Studios. In these studios numerous hits were recorded, including *Mbube* by Solomon Linda and his Evening Birds (1939),[1] songs with guitar by the Congolese Mwenda Jean Bosco, in addition to *kwela* and jive music that had a great influence on the development of southern African music genres and, furthermore, the legendary Miriam Makeba whose recordings were sold all over the world. Nowadays, Downtown Studio based in Johannesburg and set up in 1979 is one of the most important recording studios in the country and in southern Africa in general, as we will see later. This studio is also popular among scholars thanks to the significant research conducted by Louise Meintjes, whose book *Sound of Africa! Making Music Zulu in a South African Studio* (2003) made an in-depth investigation of how musicians, arrangers and producers collaborated during the recording process of *mbaqanga* music in the 1990s.

After South African Gallo, foreign investors established record labels and studios in central and southern Africa that had a very important impact in shaping African popular music genres. In Kenya, Guy Johnson and Eric Blackhart from England established the East African Sound Studios in 1947, where different Kenyan popular music genres were recorded, such as *benga* and *omutibo* (Low 1982a, Ondieki 2019). In the former Belgian Congo, today the Demo-

1 The sad copyright and royalties issue for this song reveals how Eric Gallo treated African musicians in that period. Solomon Linda was paid just a few shillings for the recording session and did not even sign a contract. The copyright belonged to the record company, which is why he never received royalties although *Mbube* would later become an international hit (for further details see Malan 2012).

cratic Republic of the Congo, the Greek businessman Nicolas Jéronimidis created the Ngoma record label in 1948, thanks to which Congolese rumba, also known as *soukous*, became popular in the country as well as in central Africa (Bender 1996, Stewart 2000).

Established in 1965, Radio Botswana (former Radio Bechuanaland) was the only broadcaster in the country at that time and the only one to deal with recordings both in its studios and around the country. Nowadays, unlike the neighbouring South Africa, there are no branches of the most important international major labels in Botswana, such as Sony and Warner Music, because the country has a rather small population (two million inhabitants) and is consequently an 'unattractive' music market. As we will see later, the recording studios in both Botswana and Malawi are closely linked to private and local initiatives and the music recorded is mainly local or national. One of the first recording studios in Botswana was the Nosey Road Studios, founded in the early 1970s. However, Gaborone Virgin Brew, The Booth Royale and XLT Studios are the most renowned in the country today and all based in Gaborone. They are cutting-edge recording studios especially for their updated technologies 'produced elsewhere' in which hip-hop artists are mainly recorded using the so-called globalised 'wired sound' (Greene 2005).

The first part of this paper will be dedicated to Monaga 'Stiger Sola' Molefi and Batlaadira Radipitse, four-string guitar song composers I met in 2018 and 2019 during my field research in Botswana. I will investigate these musicians both as live performers and music-makers in the recording studio to see how these musical fields interact with each other in their activities. I had the opportunity to carry out this research thanks to the three-year project (2018-2020) *Biographies and work analyses of East/Central African composers* (P 30718-G26) coordinated by Gerhard Kubik and financed by the Austrian Science Fund (FWF). Initially, the aim of my field research was to document composers and musicians in two different areas: Gaborone (the capital city in the south) and Maun (a northern village, which is very popular among the tourists thanks to the stunning Okavango Delta area). I have documented not only guitar song composers, but also *setinkane* (lamellophone) and *segaba* (bowed string instrument) players (Cosentino 2021).

Thanks to this project I also had the opportunity to investigate why Botswanan guitarists play with four strings only and why some of them fret the chord positions from above the fingerboard of the instrument and not from below which is 'normal' (Figure 1).

Figure 1. Solly Sebotso frets the chord positions from above the fingerboard of the guitar using his left hand. 2 July 2018, Molepolole, Botswana (a frame shot from an unpublished video of the author).

When I landed in Gaborone in 2018, my only contact was Tomeletso Sereetsi, a journalist and former Botswanan liaison officer of the International Council for Traditional Music (ICTM).

Today he is a very popular singer in the country. He is also a very talented guitar player and the author of a book regarding the Botswanan guitar style that he called 'Tswana four-string guitar' (Sereetsi 2013). In his book, Sereetsi gives a brief history of this guitar style, shows all the possible chords of the instrument and analyses the 'grooves' and styles of the most seminal guitarists.[2]

Tswana is the main ethnic group of the country and they speak Setswana which is a Bantu language. The Batswana (plural of Tswana) live in Botswana and in the northern part of South Africa. The first Tswana four-string guitar players were documented at the end of the 1960s thanks to Radio Bechuanaland operators. At that time, they played a homemade instrument using a tin oil box as resonator and four strings obtained by unrolling the brakes of a bicycle. This homemade instrument was called *motontonyane* or *senara* in the Setswana language.

> The Tswana society of the time classified the four stringers as *dikopa* (losers). The typical guitarist was a herdboy who took care of his master's cattle. [...] And like many other folk artists of the time, after a recital, the guitarist would beg for a cow in return. The four stringer then was paid with the alcoholic sorghum brew at drinking holes/shebeens where he was used as a customer-drawing card. A lot of performance artists around the time of independence, [...] toured across the country. They typically lived on the road [...] They did not take to formal employment or farming, [...] They never had a permanent address. [...] The four string guitar like much of musical instruments among Batswana was largely about recreation (Sereetsi 2013: 11-12).

Moreover, many mineworkers in both Botswana and South Africa used to play the guitar for pure personal pleasure or to entertain the onlookers in shebeens and beer gardens.[3] According to Sereetsi, the vocal and guitar pattern of jive and *mbaqanga* music from South Africa was very popular all over southern Africa during the 1950s and 1960s thanks to radio airplays and records, and it inspired the four-string guitar players in Botswana. In particular, the loud melodic lines of the electric bass played with a plectrum and the electric guitar parts of these musical genres were reproduced on a single instrument: the first Tswana homemade acoustic guitars. With the addition of the vocal line the musician turned into a real one-man band. Nowadays, Tswana guitarists play industrially manufactured guitars, both acoustic and electric, with a thick electric bass string and three guitar strings with open tuning: usually E - E - G# - B (from the lowest to the highest). Both the melodies of the voice and the guitar mainly arise from the chord progression I – IV – V (for further details see Cosentino 2019c).

The second part of this paper will be dedicated to the Malawian guitar song composer Giddes Chalamanda and his activity in the recording studio. In 2010, I had the opportunity to spend a month between May and June at the Oral Literature Research Programme, Chileka (Malawi) in order to video and audio document acoustic guitar players of the area. At that time, I was mainly interested in Christopher 'Khilizibe' Gerald (Cosentino 2019b), pupil of the late Donald Kachamba (Cosentino 2019d), whose compositions became the main subject of my PhD thesis (Cosentino 2013). On May 22, Moya A. Malamusi and I met Giddes Chalamanda in Mazwa, a small village surrounded by coffee plantations (9 km from Limbe): on that occasion, we video documented eight of his own compositions and he told us about his activity in the recording studio.

When I was in the field in both Botswana and Malawi, I unfortunately did not get the opportunity to analyse guitar song composers while they were in the recording studio since it was not in their plans, also because, as we will see later, it is very expensive for these musicians to record an album. Nevertheless, I did get the chance to discuss extensively with the guitarists mentioned below both the creative process and the collaborations with other 'studio music-makers' (Meintjes 2003) for the realisation of their album.

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2 My field research in Botswana was also conducted thanks to the valuable help of Mosako Sego Lee Rakobe in the Gaborone area and Anthony Molosi in the Maun area.

3 Gerhard Kubik (1995, 1997) and John Low (1982) described the same musical practices for the spread of the Katanga guitar style (former Zaire) in the 1950s.

Monaga 'Stiger Sola' Molefi (Botswana)

Monaga 'Stiger Sola' Molefi, known as Stiger, was recorded by Radio Botswana for the first time in 1984. Born on 12 June 1959 in Maun, where he still lives today, he is among the best-known Tswana four-string guitarists in the country and his compositions are also played on South African and Zimbabwean radios. Stiger started playing a homemade four-string guitar in 1973, then in 1980 he bought his first industrially manufactured acoustic instrument.

In 1997 Stiger recorded his first studio album (*Khubama*) in South Africa at Downtown Studio in Johannesburg and the following year the second album entitled *Mamelodi*, winner of the South African Music Award and containing one of his greatest hits ever: *Kachire*. It is a love song: a man tells his beloved Kachire that whatever he will do, wherever he will go, he will love her forever and ever. In the 1990s, Downtown Studio in Johannesburg was 'one of the best-equipped and most abundantly staffed state-of-the-art recording facilities in the country. It was run by five in-house engineers, a programmer who also engineered, a programmer-trainee/tape operator, a technician, and a team of administrative and executive personnel' (Meintjes 2003: 81). Especially at that time, the studio's main income came from the so-called 'black stuff', a term Louise Meintjes heard there. It was used by engineers and white people in the music industry to describe 'the stream of low-budget productions geared toward the mostly regional, sometimes national market' (Meintjes 2003: 83). Today, Downtown Studio is still one of the most important recording studios in the country.

Figure 2. Monaga 'Stiger Sola' Molefi playing his acoustic guitar. 11 July 2018, Maun, Botswana (photo: Silvia Montaquila).

The recording of the song *Kachire* (Audio example 1), which we can define as a 'studio audio art recording' using Turino's categorisations (Turino 2008), is also available on YouTube.[4] However, when I interviewed Stiger in 2018 he did not know that someone had uploaded it on the web. Referring to that recording he told me: 'I wanted to record my music in a modern way, I wanted to catch the attention of the audience immediately. In Downtown Studio we had a good time, I worked with four people: one white and three black guys. They supported me during the recordings, and they helped me to make always the right choice in order to get the right sound. We used programmed rhythm and percussion tracks, while I recorded both the bass guitar and the guitars. The keyboards were played by a session musician'.

4 The YouTube link is the following https://www.youtube.com/watch?v=PdXhToEjawY, last access December 27th, 2023.

Link » Audio Example 1

Kachire, by Monaga 'Stiger Sola' Molefi, from album *Mameladi*, recorded at Downtown Studio (Johannesburg - South Africa) in 1998.

On 11 July 2018 I had the opportunity to video and audio document four Stiger compositions at Maun Old Bridge. He accompanied himself on his four-string acoustic guitar only. That day he also played *Kachire* (Video Example 1), and regarding that 'high fidelity recording' (Turino 2008) he said: 'even if I miss the other instruments, when I play at traditional music cultural events, I prefer to perform alone with the guitar. These events are usually more intimate and there is no active participation by the audience'. We can consider the live performance described by Stiger as a 'presentational performance' (Turino 2008), where the composer prefers to perform his songs in a more 'traditional' way, faithful to the original compositional idea, accompanying himself on the guitar only. Among these events, I can mention the President's Day Competition, a competition with rich prizes held every year throughout Botswana. The competition is organised by the Ministry of Youth, Sports and Culture to promote Botswanan talents and includes a regional preliminary level and a final in Gaborone. The categories are: Traditional Songs and Dances, Contemporary music, Choral Music, Traditional Instruments as well as Visual Arts and Crafts. The Tswana four-string guitar is considered a traditional instrument along with the already mentioned *setinkane* (lamellophone) and *segaba* (bowed string instrument). Stiger has won the regional level six times and he has performed both on acoustic and electric four-string guitars.

Link » Video Example 1

Kachire, by Monaga 'Stiger Sola' Molefi, video by Alessandro Cosentino, July 11, 2018, Maun Old Bridge (Botswana).

When Stiger performs at popular music festivals both in Botswana and South Africa, just like at the Okavango Delta Music Festival, he prefers to play the four-string guitar and sing along to the playback instrumental studio recordings of his songs. In 2018 he said to me: 'I love studio recordings! Thanks to playback studio recordings I feel stronger and more comfortable on stage. The concert is more animated, and everyone can dance and sing with more energy'. The 'studio audio art recordings', in addition to being played by radios all over the country, are thus also of great support at the 'participatory performance' (Turino 2008) of the guitarist, where the audience is an important part of the show. That is why, at popular music festivals, he uses playback recordings when he does not get enough money to pay other musicians to perform with him. So, the playback studio recordings can substitute human beings in Stiger's 'participatory performance', even if he prefers playing together with his companions.

The 'studio audio art recording' of *Kachire* (Audio Example 1) 'immerses' the song in a 'globalized sound' composed of electronic drums, loops and keyboards. This produces an 'in your face sound' (Neuenfeldt 2005) which was strongly desired by Stiger. He managed to obtain this thanks to the help of Downtown Studio producers, arrangers and engineers. On the other hand, the 'high fidelity recording' (Video Example 1) is more intimate and mellow, it shows us the refined and continuous interlocking game between the bass string and the melodic lines played on the treble part of the guitar. This very important feature of the Tswana four-string guitars totally disappears in the version of *Kachire* recorded at Downtown Studio, but this does not matter to Stiger, since the main purpose of this recording is to achieve a 'modern sound', not to represent the Tswana four-string guitar tradition. A 'modern sound' could be achieved only in the recording studio: thanks to his first two studio albums, Stiger Sola's songs crossed the national borders.

The important interplay between the four categorisations proposed by Turino (2008) in Stiger Sola's musical activities is also significant: the studio is not only a place to share ideas and experiment with other studio music-makers, but it is also in great continuity with his 'participatory performances' where he frequently uses playback instrumental studio recordings of his songs.

Batlaadira Radipitse (Botswana)

We will now move to the south, more precisely to Mmankgodi a small village 40 km from Gaborone. Batlaadira Radipitse was born in this village in 1989 and he still lives there. He is one of the youngest talented Tswana four-string guitarists in the country. He started playing the instrument in 1998, but decided to become a professional musician only in 2009: 'I am a self-taught guitar player. In my village, there are a lot of guitarists who play the instrument from above the fingerboard. In order to be different, I started playing it from below. Now I play both ways, it does not really make a difference to me, even if there are some songs or part of songs that it is better to play in one way or the other'.[5] He has won the President's Day Competition three times (2013, 2014, 2016, 2019 and 2023) and thanks to the first prize money (10,000 pula, about 850 euro), he was able to record his first studio album. His songs are very popular in Botswana, especially the 'studio audio art recordings': 'I never wanted to play for small tips in shebeens. When I decided to become a professional musician, I wanted to be famous. And now I have done it, I make my living playing my music'.

Figure 3. Batlaadira Radipitse playing his guitar. 1 July 2018, Mmankgodi, Botswana (frame shot from Video Example 2).

I bought Radipitse's first album from a stall outside the Broadhurst Mall in Gaborone. The CD was not produced by any record label and had no box or booklet (Figure 4). Radipitse himself 'distributed' the copies of the album to music shops and stalls like the one outside the main malls in Gaborone. Like many professional musicians in other African countries (Olivier 2017), album sale is not Radipitse's main income, since he makes his living mainly playing at government-sponsored traditional events and official ceremonies. The album was recorded in 2016 at Bullet Music Production in Mogoditshane, very close to Gaborone. Radipitse paid 6,000 pula (around 500 euro) to record the six tracks of the album entitled *Ke tshwennga ke mmamanthwane* (I am nagged by a black bat), which is also the title of a song contained on the album about a bat 'sent' by someone to torment the guitarist's sleep every night.

5 All Radipitse's statements in this paragraph were collected on 1 July 2018 during our meeting at his home village Mmankgodi.

Figure 4. Batlaadira Radipitse, *Ke tshwennga ke mmamanthwane*, CD released in 2016.

Regarding the 'studio audio art' recording process, Radipitse said to me: 'I wanted to record my album in a modern style to reach all people, even those who don't love our traditional music. When I compose a new song, I have it on my mind with the sound of electronic drums as well, I love that sound'. What Radipitse seeks in the recording studio is an essential and 'in your face' sound that does not distort the essence of his songs. For this reason, he does not use electronic keyboards; the only instrument played live is his electric four-string guitar which is accompanied by his voice, of course.

He loves the sound of electronic drums in his songs and that is why he decided to record his first album at Bullet Music Production Studio. The owner of the studio is Bullet Ketshabile (Figure 5), who is also the sound engineer, arranger and producer. Just as happens in other African countries (Olivier 2017, Meintjes 2005), the owner of the studio plays the role of all these professional studio figures in order to keep recording fees low. Bullet Ketshabile is the only studio music-maker, and Radipitse is well aware of this, since he loves Bullet's way of programming the electronic drums. Bullet played the midi master keyboard in the studio album using an electronic click track metronome in order to play as regularly as he could. The master keyboard controlled the Virtual Instruments (VST) of Cubase 5, i.e. the popular digital audio workstation (DAW) developed by Steinberg thanks to which he generated the eight digital drum tracks (kick, snare, rattle, hi-hat, conga, etc.). Then Radipitse 'played along to' the electronic drums instead of 'performing with' the drummer (Porcello 2005): the composer recorded simultaneously the electric four-string guitar (directly wired to the PC) and the vocal melody.

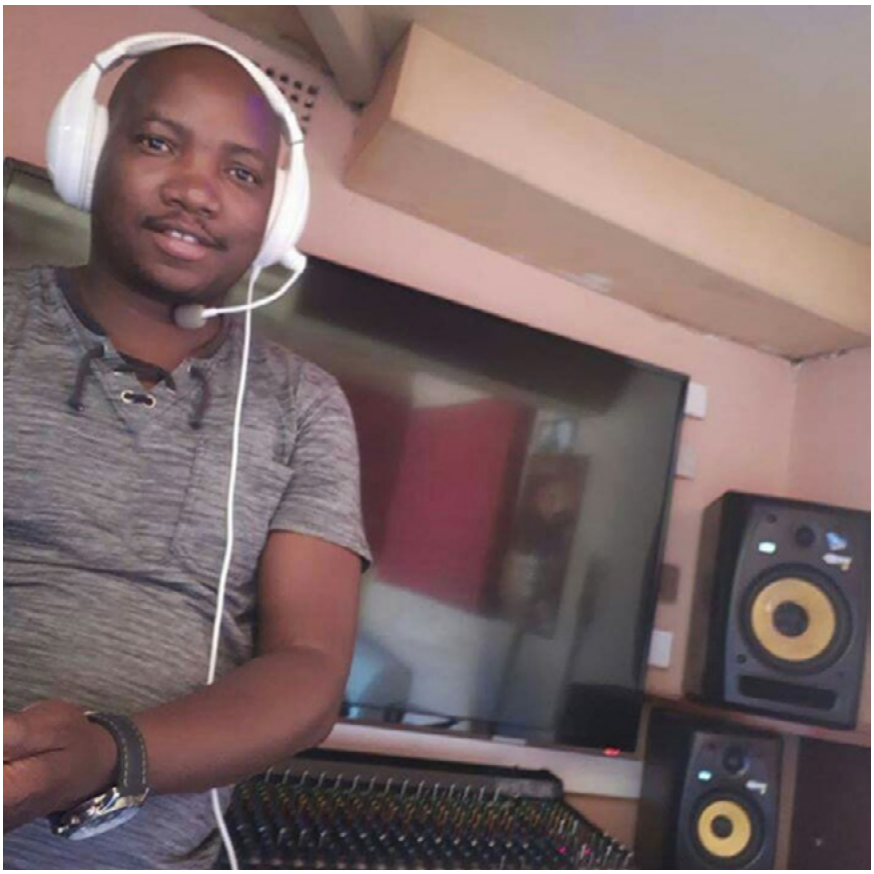

Figure 5. Bullet Ketshabile in his Bullet Music Production Studio. Mogoditshane, Botswana (photo: Facebook).

Banyana ba tricky (The girls are tricky) is a song in the Setswana language composed by Batlaadira Radipitse; it is popular throughout Botswana thanks to the radio airplays. It was written by the guitarist after he had suffered a broken heart, which is why he states in the song: 'girls only want men's money, we are used for their purposes'. The song is included on his first album (Audio Example 2). In the recording the bass string of the guitar is very loud, it is 'in your face', while the other three strings of the instrument are in the background. Furthermore, the bass line seems to be overdubbed with a synthesised sound, although both Bullet Ketshabile and Batlaadira Radipitse told me that this was not so: what we can hear is just the sound of the bass string of the electric guitar.

Link » Audio Example 2

Banyana ba tricky, by Batlaadira Radipitse, from album *Ke tshwennga ke mmamanthwane* (I am nagged by a black bat), recorded at Bullet Music Production Studio (Mogoditshane - Botswana) in 2016

On July 1st, 2018 I got the chance to video and audio document *Banyana ba tricky* performed by Radipitse with his Ibanez four-string acoustic guitar outside his house in Mmankgodi (Video Example 2). This 'high fidelity traditional recording' shows us the 'Tswananess' of the composition: the guitarist frets with his left hand the four strings of the instrument from above the fingerboard, and the three treble strings of the instrument rhythmically interlock with the very regular bass line. Furthermore, Radipitse plays very fast and loud solos on the bass string of the guitar between the verses of the song, a very common feature characterising Tswana four-string guitar players. In the 'studio audio art recording' the bass line is always regular, as it does not produce solos. Furthermore, the bass line and the treble strings of the guitar are 'placed' on different sound levels: listening to the song one might perceive that the two guitar parts come from two different instruments.

Link » Video Example 2

Banyana ba tricky, by Batlaadira Radipitse, video by Alessandro Cosentino, July 11, 2018, Maun Old Bridge (Botswana).

When he performs live, just like Stiger Sola, Radipitse also loves playing the guitar along to the playback drum tracks recorded in the studio: 'the audience dances mainly thanks to the drums, I always use them. I play without the drums only in more traditional contests, such as the President's Day Competition where it is not even allowed'.

Giddes Chalamanda (Malawi)

Giddes Chalamanda was born in 1930 in the village of Mazwa (Malawi) and still lives there with his wife and six children. He taught himself to play the guitar when he was twelve years old, and now he is teaching his children to play the instrument. His first guitar was a present from a friend; he also used to play a homemade banjo.[6] Today his songs are very popular all over Malawi, especially among teenagers. Giddes' compositions are frequently played by local radios, and he furthermore plays at the main musical events around Blantyre and Limbe and also at the Lake of Stars Malawi Arts Festival, the most important festival in the country which takes place during the summer. On the occasion of these music festivals, he is usually accompanied by a band. In 2007, Giddes Chalamanda flew to Europe to sing and play his own compositions at seven concerts: Berlin, Hannover and Munich were some of the cities he performed in. Three years later, on Moya A. Malamusi's recommendation, Giddes was invited to Germany to perform at a guitar music festival.

Figure 6. Giddes Chalamanda sings and plays the guitar outside his own house. Mazwa village/Limbe, Malawi, 22 May 2010 (frame shot from Video Example 3).

6 Factory-manufactured banjos were introduced into southern Africa in the 1920s and homemade banjos were very popular in Malawi starting from the end of the 1970s. Young boys with such instruments started playing on street corners, on country roads and in the towns. For further information see Kubik (1989) and Malamusi (2015).

Giddes' songs talk about everyday life experiences, most of them are about his wife or his children and some of them are about relevant problems of contemporary society. On 22 May 2010 I got the chance to video document eight compositions by Giddes Chalamanda, which he played by himself on a Tanson acoustic guitar sitting on the porch of his house. The recording session contained *Abiti Alfuledi* (Miss Alafuledi), a sad song in Chiyao, Chichewa and English about a Malawian girl who decided to move to Zambia, but on her return to her native village, she realised that her ex-boyfriend had married another woman (Video Example 3). On that occasion I could appreciate the guitarist's unique and very interesting 'manual vamping style' (Low 1982b: 21): his left hand produced only basic chords (G, C and D major), while his right hand created a very structured motional pattern (Kubik 2010: 329-381), which produced a refined rhythmic game on the instrument (Cosentino 2019a).

Link » Video Example 3

Abiti Alfuledi, by Giddes Chalamanda, video by Alessandro Cosentino, May 22, 2010, Mazwa village/Limbe (Malawi).

In 2002, the Malawian producers Dean and Albert Khoza sensed the 'appeal' of Giddes' compositions and decided to record some of his songs on an album: *Ndife Mbeu* containing ten tracks (seven were his own compositions). Giddes was 73 years old at that time and had the opportunity to work with younger musicians and arrangers to produce an album in a studio. When I met him in 2010, Giddes told me that the atmosphere was very relaxed, because the owner of Studio K in Blantyre, like many other recording studio owners in Malawi (Deja 2013), was also the producer and sound engineer of the album and he always fostered 'hi-fi sociality' (Mejntes 2017, see also Bates 2012) among the different studio music-makers. Giddes' composition *Abiti Alafuledi* is also contained on the album (track 3), but the sound of this 'studio audio art recording' (Audio Example 3) is very different from the 'high fidelity recording' I made in 2010. The acoustic guitar played by Giddes is in the background while the electric bass played by Kondwani Nyirenda is in the foreground together with the electronic drums programmed by Albert Khoza and Hendrix Kalaya. Furthermore, the two musicians distinguished the arrangement of the song with two different keyboard sounds that imitate a marimba and a flute.

Link » Audio Example 3

Abiti Alfuledi, by Giddes Chalamanda, from album *Ndife Mbeu,* recorded at Studio K (Blantyre - Malawi) in 2002.

In 2002, Malawi was still living the last years of the 'cassette culture' era (Manuel 1993), so both the producer of the album and Giddes decided to publish *Ndife Mbeu* on a cassette in order to create a suitable and user-friendly product (Figure 7). The 'independent' studios in Malawi used to spread local musicians' recordings throughout the country on cassettes, which were cheap while cassette players were very easy to repair. Thanks to his album, Giddes became very popular all over Malawi, a 'local star'. This is the reason why the Government of Malawi decided to send him to the Library of Congress concert in Washington to represent the 'musical tradition' of Malawi, and on 5 July 2016 he played there, accompanied by the Malawian musicians Davis Njobvu (voice and acoustic guitar), Edgar Kachere (voice and rattle), Uncle Lai (acoustic guitar) and Chimwemwe Maloya (voice and rattle).[7] Giddes finally got the opportunity to visit the USA, as he had always dreamed of doing, as expressed in the lyrics of his song *Buffalo Soldier*, an adaptation of the popular composition by Bob Marley.

7 The complete video of the performance is available on the YouTube link https://www.youtube.com/watch?v=fwyxOZM_r4w&t=2455s, last access December 27th, 2023.

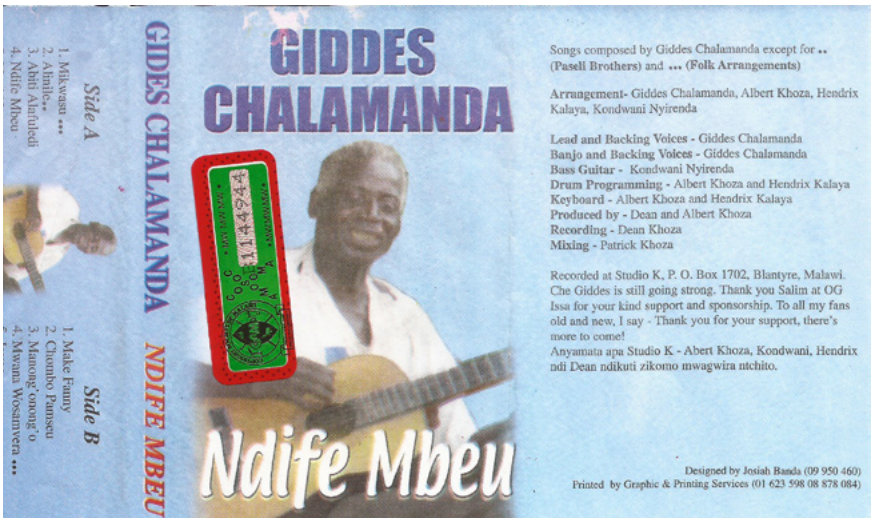

Figure 7. Cassette cover of *Ndife Mbeu* by Giddes Chalamanda.

Concluding remarks

Although there are no branches of international record labels (the so-called 'major' labels) in Botswana and Malawi, there are small recording studios working with local musicians to produce studio albums mainly for the national market. Despite the fact that both Botswana and Malawi now have their own cutting-edge recording studios equipped with professional technologies, there is still a 'historical gap' if compared to those in South Africa, both in terms of technologies and the reference musical market, since South African records are sold all over the world. South African studios are still today a 'reference model' for producers, arrangers and sound engineers from Botswana, Malawi and southern Africa in general, even though the gap is getting smaller and smaller thanks to the more affordable prices and availability of professional studio technologies in central and southern Africa.

The recording studios examined in this paper are places of cultural creation from where culture can be disseminated all over the world through recordings and, in the last decades, the web (Wallach 2005). Not all the guitar song composers can afford to record a studio album because it is quite expensive, and that is also the reason why the government of Botswana supports artists through the President's Day Competition. Studio recordings can be the first step for these musicians in making their living as musicians to support themselves and their families.

As regards the guitarists' approach to the recording studio examined in this paper, two trends have emerged: the first is that of Stiger Sola and Giddes Chalamanda who let themselves be guided by different studio music-makers (producers, arrangers, engineers and musicians). These two guitar song composers prefer elaborate arrangements (electronic drums, bass guitar, choirs and keyboards) for their guitar songs. The recording process is a proper musical practice among different individuals who, on the basis of an original idea, create a totally re-shaped product. We could define this first process as a 'multi-input musical practice'.

The second approach is the one adopted by Batlaadira Radipitse, which is totally different: before entering the studio he already has in mind how his songs should be recorded. He prefers to work with only one studio music-maker, Bullet Ketshabile: a digital drum programmer who is also the owner and sound engineer of the studio. He is very good at 'creating' what the guitar song composer desires.

The activities carried out by these guitar song composers show their will to operate not only in oral tradition contexts but also in those related to popular music, such as the recording studios, where their songs are first 'dressed' and then recorded through various processes and paths in which different professional figures are involved.

References

BATES, Eliot

2012 'What Studios Do', *Journal on the Art of Record Production*, VII (available online: https://www.arpjournal.com/asarpwp/what-studios-do/ last access December 27th, 2023)

BENDER, Wolfgang

1996 *Ngoma, the Early Years 1948-1960*, booklet of CD, Popular African Music pamap 101

2019 'The Run for the African Sound. The Commercial Recording Industry in the 20th Century for and in Africa', in Giorgio Adamo and Alessandro Cosentino (eds.), *Music Traditions, Change and Creativity in Africa. Past and Present*, NeoClassica, Roma: 193-212

CHANDLER, Keith

2002 'Echoes of Africa. The Genesis of the Record Industry of the Sub-Sahara', booklet of CD *Echoes of Africa. Early Recordings*, Wergo SM 16242: 19-30

COSENTINO, Alessandro

2013 *La chitarra finger-style in Malawi: Christopher Gerald (1981), compositore ed esecutore*, Ph.D. thesis, Tor Vergata University of Rome

2019a 'Giddes Chalamanda, a Malawian composer and guitar player', in Nadia Amendola, Alessandro Cosentino and Giacomo Sciommeri (eds.), *Music, Individuals and Contexts. Dialectical Interactions*, SEdM, Roma: 489-500

2019b 'La chitarra *finger-style* in Malawi. Christopher 'Khilizibe' Gerald (1981-2019), compositore ed esecutore', *Studi Musicali*, X/2: 345-374

2019c '«Less Is More, My Friend!». Sibongile Kgaila and Solly Sebotso: Four-String Guitar Song Composers from Botswana, *Etnografie Sonore / Sound Ethnographies*, II/2: 29-57

2019d 'Master-Disciple Relationship in Finger-Style Guitar: Donald Kachamba and Christopher Gerald', in Giorgio Adamo and Alessandro Cosentino (eds.), *Music Traditions, Change and Creativity in Africa. Past and Present*, NeoClassica, Roma: 139-155

2021 'Thojane Ikajeng e Oteng Piet, suonatori di *segaba* dal Botswana', in Alessandro Cosentino, Raffaele Di Mauro e Giuseppe Giordano (eds.), *Sounding frames. Itinerari di musicologia visuale. Scritti in onore di Giorgio Adamo*, Edizioni Museo Pasqualino, Palermo: 171-195

DEJA, Richard M.

2013 'Malawian Musicians, Social Worlds, and the Performance of Place in the Recording Studio', paper presented at *7th Annual Ethnomusicology Symposium*, University of Dar es Salaam, Tanzania, 25-27 July (available online: https://www.academia.edu/7187045/Malawian_Musicians_Social_Worlds_and_the_Performance_of_Place_in_the_Recording_Studio last access December 27th, 2023)

GREENE, Paul D.

2005 'Introduction: Wired Sound and Sonic Cultures', in Paul D. Greene and Thomas Porcello (eds.), *Wired for Sound. Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown CT: 1-22

KUBIK, Gerhard

1989 'The Southern African Periphery: Banjo Traditions in Zambia and Malawi', *The World of Music*, XXXI/1: 3-29

1995 *African Guitar: Solo Fingerstyle Guitar Music from Uganda, Congo/Zaire, Central African Republic, Malawi, Namibia and Zambia. Audio-visual Field Recordings 1966-1993 by Gerhard Kubik*, VHS with booklet, Vestapol Productions, Sparta NJ [DVD with booklet, 2003]

1997 *Mwenda Jean Bosco (1930-1990): Songs with Guitar, Shaba/Zaire*, CD with booklet, Staatliche Museen zu Berlin Preussischer Kulturbesitz, Berlin
2010 *Theory of African music*, vol. I, University of Chicago Press, Chicago

LOW, John
1982a 'A History of Kenyan Guitar Music 1945-1980', *African Music*, VI/2: 17-36
1982b *Shaba Diary: A Trip to Rediscover the 'Katanga' Guitar Styles and Songs of the 1950's and '60's*, Engelbert Stiglmayr, Vienna

MALAMUSI, Moya A.
2015 *The banjo bands of Malawi*, DVD with booklet, Vestapol Productions, Sparta NJ

MALAN, Rian
2012 *The Lions Sleeps Tonight: And Other Stories of Africa*, Grove Press, New York

MANUEL, Peter
1993 *Cassette Culture: Popular Music and Technology in North India*, The University of Chicago Press, Chicago and London

MEINTJES, Louise
2003 *Sound of Africa! Making Music Zulu in a South African Studio*, Duke University Press, Durham
2005 'Reaching "Overseas": South African Sound Engineers, Technology, and Tradition', in Paul D. Greene and Thomas Porcello (eds.), *Wired for Sound. Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown CT: 23-46
2017 'Hi-fi Sociality, Lo-fi Sound: Affect and Precarity in an Independent South African Recording Studio', in Tejumola Olaniyan (ed.), *State and Culture in Postcolonial Africa: Enchantings*, Indiana University Press, Bloomington: 207-223

NEUENFELDT, Karl
2005 'Nigel Pegrum, "Didjeridu-Friendly Sections", and What Constitutes an "Indigenous" CD: An Australian Case Study of Producing "World Music" Recordings', in Paul D. Greene and Thomas Porcello (eds.), *Wired for Sound. Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown CT: 84-102

OLIVIER, Emmanuelle
2017 'Musical Creation and Recording Studio in Ethnomusicology: A Reflection from Bamako (Mali)', paper presented at *Tracking the Creative Process in Music (TCPM)* International Seminar, IV Edition, University of Huddersfield, 14-16 September (available online: https://www.academia.edu/37876781/Musical_Creation_and_Recording_Studio_in_Ethnomusicology._A_Reflection_from_Bamako_Mali_ last access December 27, 2023)

ONDIEKI, Donald Otoyo
2019 'The History of Popular Music in Kenya', in Giorgio Adamo and Alessandro Cosentino (eds.), *Music Traditions, Change and Creativity in Africa. Past and Present*, NeoClassica, Roma: 179-191

PORCELLO, Thomas
2005 'Music Mediated as Live in Austin: Sound, Technology, and Recording Practice', in Paul D. Greene and Thomas Porcello (eds.), *Wired for Sound. Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown CT: 103-117

SEREETSI, Tomeletso
2013 *The Solo Four String Guitar of Botswana: A Player's Manual Showing Chords, Grooves and the Style's Most Seminal Guitarists*, book with CD, In the Loop, Gaborone

STEWART, Gary
2000 *Rumba on the River: A History of the Popular Music of the Two Congos*, Verso Books, London

TURINO, Thomas
2008 *Music as Social Life: The Politics of Participation*, The University of Chicago Press, Chicago and London

WALLACH, Jeremy
2003 'The Poetics of Electrosonic Presence: Recorded Music and the Materiality of Sound', *Journal of Popular Music Studies*, XV/1: 34-64
2005 'Engineering Techno-Hybrid Grooves in two Indonesian Sound Studios', in Paul D. Greene and Thomas Porcello (eds.), *Wired for Sound. Engineering and Technologies in Sonic Cultures*, Wesleyan University Press, Middletown CT: 138-155