

# Applying Ecomusicology to Foreign Language Education

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DOI: [HTTPS://DOI.ORG/10.37536/ECOZONA.2021.12.1.3857](https://doi.org/10.37536/ECOZONA.2021.12.1.3857)



## Abstract

This paper examines ecomusicology from the perspective of foreign language education. As a relatively new field of research, ecomusicology can generally be described as an interdisciplinary field of study focusing on topics related to the environment, music, and culture. Due to its interdisciplinary nature, it offers new research directions for foreign language education, mostly within the fields of eco-pedagogy and global education. To identify points of application, the variety of thematic foci examined by scholars investigating ecomusicology are identified and subsequently applied to foreign language education. The focus thereby is on four major ecomusicological publications. The outcome of the analysis of these publications is a conceptual model of ecomusicology applied to foreign language education on four domains: 1) musicians, 2) music artefacts, 3) music in action, and 4) the environment. Given the current lack of research into the potential of ecomusicology for foreign language education, this paper therefore aims to fill a research gap. Reasons for integrating theoretical considerations in ecomusicology are discussed from the perspective of foreign language teaching and learning and thus conceptualised for a practical application. An example that focuses on the analysis of eco-songs through a categorised list of questions based on the four ecomusicological domains illustrates how the conceptual model can be applied in practice and serve as a pool of ideas for teaching activities.

*Keywords:* Ecomusicology, foreign language education, ecocriticism, eco-artefacts, eco-songs.

## Resumen

En este documento se examina la ecomusicología desde la perspectiva de la enseñanza de idiomas extranjeros. Al situarse como un campo de investigación relativamente nuevo, la ecomusicología puede describirse en términos generales como un campo de estudio interdisciplinar centrado en temas relacionados con el medio ambiente, la música y la cultura. Debido a su carácter interdisciplinar, esta ofrece nuevas direcciones de investigación para la enseñanza de idiomas extranjeros, sobre todo en los ámbitos de la ecopedagogía y la educación global. Para identificar sus aplicaciones, este texto aborda los diversos focos temáticos examinados por los ecomusicólogos, y los aplica, posteriormente, a la enseñanza de idiomas extranjeros. En este sentido, este texto se centra en cuatro publicaciones de importancia en el campo de la ecomusicología. El resultado del análisis de esas publicaciones genera un modelo conceptual de ecomusicología aplicado a la enseñanza de idiomas extranjeros en cuatro ámbitos: 1) los músicos, 2) los artefactos musicales, 3) la música en acción, y 4) el medio ambiente. Puesto que el potencial de la ecomusicología para la enseñanza de idiomas extranjeros no está siendo abordado actualmente por la academia, este artículo pretende contribuir a disipar esta carencia. Se examinan las razones por las que integrar las mencionadas consideraciones teóricas en la ecomusicología desde la perspectiva de la enseñanza y el aprendizaje de idiomas extranjeros y, así, se conceptualizan para una aplicación práctica. Un ejemplo centrado en el análisis de las ecocanciones a través de una lista categorizada de preguntas basadas en los cuatro dominios ecomusicológicos ilustra la forma en que este modelo conceptual puede aplicarse en la práctica y servir como banco de ideas para actividades de aprendizaje.

*Palabras clave:* ecomusicología, enseñanza de lenguas extranjera, ecocrítica, eco-artefactos, eco-canciones.

## Introduction

The term *ecomusicology* is certainly no buzzword: it is not widely used, especially in the field of foreign language education. One reason for this could be that it is a relatively new field of research, which emerged in the early 21<sup>st</sup> century. Ecomusicology can be described as “an organizing principle, an umbrella, to refer to studies of the interconnections between music, culture, and nature—or studies of the interconnections between the arts, humanities, and sciences” (Allen, “Ecomusicology: Bridging” 375). Theoretically, ecomusicology is rooted in ecocriticism, ethnomusicology, and (historical) musicology and it thus comprises an interdisciplinary field of research. Whereas ecocriticism focuses on the analysis of literary texts, ecomusicology focuses on music as a medium for issues of environmental concern. So why is ecomusicology of interest to foreign language education?

Providing an answer to this question first requires a consideration of educational goals, one of which is the development of critical environmental literacies comprising knowledge, attitudes, skills, and action (Deetjen, Ludwig). To achieve this goal, teachers can choose from a great variety of text formats or eco-artefacts (Summer “Making the Case”)—ideally ones that are potentially motivating for learners and closely related to their lives. Outside of school, learners of foreign languages can choose from an increasing variety of medial forms of entertainment and it seems that music today still plays a very important role in the entertainment industry. The recently published *Global Music Report: The Industry in 2019* reveals that the global recorded music market grew by 8.2% in 2019 marking the fifth consecutive year of growth (IFPI 11). In effect, this substantial growth of the music industry indicates that music continues to play an important role in the lives of many people. Combined with a growing interest in research directions such as ecocriticism (Garrard), eco-pedagogy (Misiaszek, Deetjen, Ludwig), and education for intercultural citizenship (Byram et al.), which highlight the importance of increasing learners’ awareness of environmental concerns and exploring human-environment relationships in different texts and media, this illustrates the significance of applying ecomusicology to foreign language education.

The aim of this essay is to explore ecomusicology and apply it to foreign language education. Whereas I investigated the potential of eco-songs as artefacts for dealing with various environmental issues across different musical genres in a previous study, for which I developed a list of current eco-songs (Summer, “Eco-Songs”), this paper follows a broader interdisciplinary approach. By exploring ecomusicology as a field of research, this study aims to identify key areas of ecomusicology that are of central importance to foreign language education. Given the interdisciplinary nature of ecomusicology and potential intersections with foreign language education, the research methodology involves an analysis of major works in ecomusicology, of which the key findings are applied to foreign language education. This includes the presentation of a conceptual framework that aims to relate ecomusicology to foreign language education. After discussing this framework, a practical example aimed at the analysis of eco-songs illustrates the framework’s potential.

## Research Methodology

The research methodology of applying ecomusicology to foreign language education comprises three phases (see Fig. 1): First, literature in the field of ecomusicology is analysed to identify key topics and arguments relevant for and from the perspective of foreign language education. Second, the concept of developing critical environmental literacies is examined to relate current trends in environmental learning and the development of ecological literacies to ecomusicology. In the third step, specific ecomusicology domains are constructed in application to the learning and teaching of foreign languages, the result of which is discussed in the subsequent section.

An examination of ecomusicology first requires a closer investigation of this field of research. Generally, the term *ecomusicology* refers to an academic discipline that combines ecocriticism and environmental studies with musicology or music studies. However, as is pointed out by Allen and Dawe, ecomusicology constitutes a “dynamic field” (1), which is why they favour the term *ecomusicologies*. Publications in the field of ecomusicology frequently deal with complex perspectives comprising the study of music, nature, the environment, society, and culture. Although ecomusicology as a field of research is very dynamic, the term *ecomusicology* (in its singular form) is most frequently used in publications and is thus applied accordingly in this essay. Aaron S. Allen is one of the leading scholars in the field of ecomusicology and, in addition to his definitions of the term, he also describes approaches in the field of ecomusicology. These are said to advocate an awareness that leads to positive social and environmental changes (Allen, “Ecomusicology” 763). While keeping this notion of ecomusicological approaches in mind, the following section examines four book-length ecomusicology publications in chronological order to identify research areas that are potentially relevant for foreign language learning and teaching.

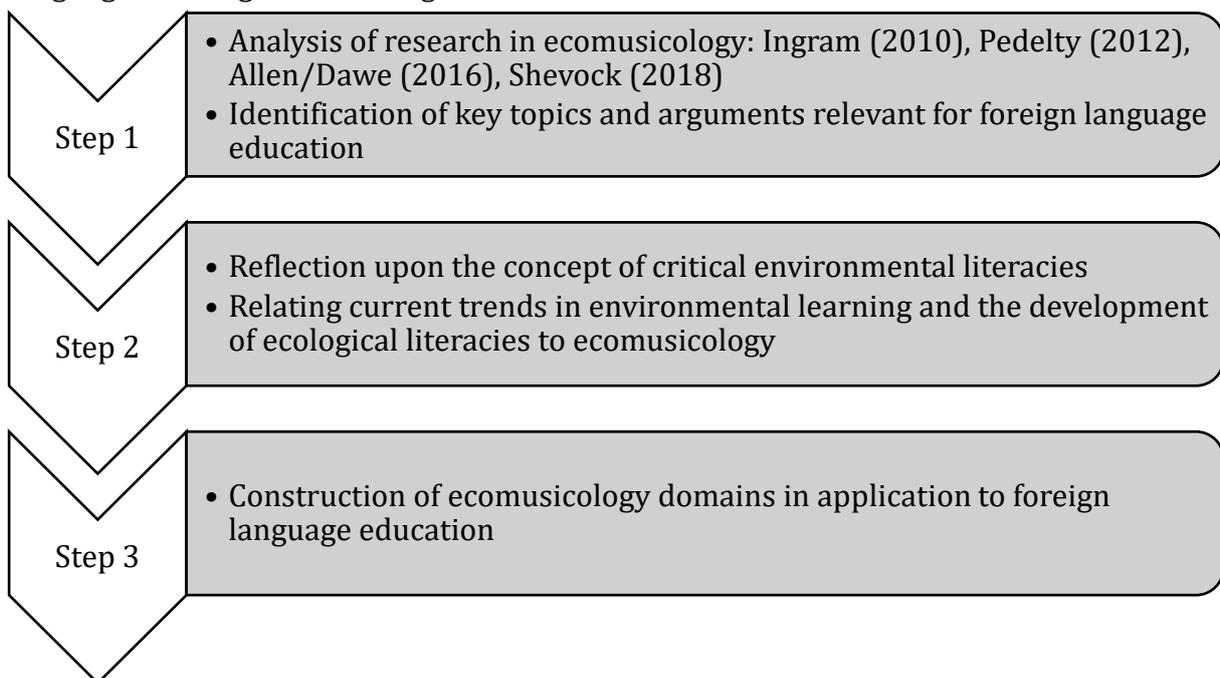


Fig. 1: Research methodology: applying ecomusicology to foreign language education.

The first publication, Ingram's (2010) *The Jukebox in the Garden: Ecocriticism and American popular music since 1960*, includes detailed musical surveys of various genres and the relationship between nature, technology, and environmental politics, while also exploring the potential of music in raising environmental awareness. The initial chapters are devoted to music in and around the 1960s and later decades including blues, folk, 1960s rock and R'n'B, country rock (Ingram 73-158). The subsequent chapters are devoted to post 1960s rock, R'n'B and hip-hop, world music, electronica, and jazz (Ingram 159-231). As such, Ingram focuses primarily on one eco-artefact, namely popular songs, while considering their relationship with the environment. He describes songs' influence on the listener as follows: "As an art form, music can nurture our imaginative, emotional and spiritual responses to the natural world. In doing so, it calls upon both analytical and intuitive modes of thought, and thereby extends human rationality, rather than conflicts in it" (Ingram 238). Songs' capacity to nurture our emotional responses to the environment serves as a starting point for calling upon educators to include songs for environmental learning. Whereas songs tend to be a popular teachers' tool to motivate learners in class (Tegge 277), their potential to develop ecological literacies has not yet received substantial recognition in published materials (Summer, "Eco-Songs" 139). Consequently, it needs to be discussed whether popular songs that address environmental issues should deserve a more substantial place in foreign language classrooms (Summer, "Eco-Songs").

The second publication that provides relevant insights into ecomusicology and invites an application to foreign language education is Pedelty's book *Ecomusicology: Rock, Folk, and the Environment* (2012), which comprises an ethnographical account of ecomusicology. He examines the whole system underlying the production, performance, and consumption of music by convincingly arguing that all of these three aspects need to be examined from an environmental perspective (Pedelty 36). He names Jack Johnson as the best model in trying to take sustainability more seriously because he aimed to engage fans in environmental activities in his 'All at Once' project (allatonce.org), calling this "a major advance in terms of environmental performance [...] transforming rock performance from passive consumption into active engagement" (Pedelty 35). As of today, the non-profit organisation REVERB, for instance, of which Jack Johnson is an early partner (<https://reverb.org/>), helps artists to create carbon neutral concerts and empower individuals to take pro-environmental actions for a better future through carbon neutral concerts, recycling, more sustainable merchandise, and educational projects. Whereas the consumption of music, for instance, through listening to songs, probably plays the most central role in learners' everyday musical engagement, it is important to raise their awareness of the two other aspects, namely the production and performance of music, when initiating environmental learning. Crucially, this awareness is brought forward through ecomusicological research. Providing learners with relevant knowledge and helping them make informed choices is not only vital for learners when they listen to songs, but also for them to make informed and conscious decisions in practice—for instance, when listening to music or visiting a concert.

The third relevant contribution is the first edited volume of ecomusicology studies, *Current Directions in Ecomusicology: Music, Culture, Nature*, published by Allen and Dawe in 2016. It presents four interrelated directions of research: 1) ecological (the science of ecology), 2) fieldwork (ethnographic research), 3) critical (ethical critique), and 4) textual (analysis of sounds, words, and images) (Allen, Dawe). Although the essays presented in this volume are very specific, theoretical, and do include explicit references to foreign language education, this volume is groundbreaking in two ways: First, it is proof of the interdisciplinarity and openness of ecomusicology as a field of research. It addresses topics such as material sustainability, birds and mice, and global warming from the perspectives of music study as well as environmental and cultural studies. Furthermore, this volume opens up new avenues for exploring ecomusicology from other fields of research, such as foreign language education, that can potentially provide new conceptual ecomusicological models for teaching practice. This volume does not only consider a specific music artefact, such as songs for instance, but it clearly lays out the intersections between music and the environment—a feature that is consequently integrated in the conceptual model (see Fig. 2).

The fourth and most recent publication is Shevock's *Eco-literate Music Pedagogy* (2018), which presents a concept of ecological literacy from a philosophical and autoethnographical perspective. He describes "ecological literacy" as praxis that "involves looking courageously at the ecological crises (reflection) and identifying ways to alleviate these crises (action)" and notes that an eco-literate music pedagogy starts with raising learners' awareness of local places (Shevock 10). Consequently, rather than dealing with global environmental issues such as global warming and the climate crisis, this approach calls upon making global issues local to learners by examining local problems or identifying environmentally harming lifestyles. Shevock also addresses pedagogic options in eco-literate music pedagogy and suggests providing students with the opportunity to write environmental songs (Shevock 64) and become active in "small acts of resistance" to foster a good relationship between humans and humans, and humans and nature (Shevock 65). This understanding of ecological literacy complies with current models of critical environmental literacies, as will be outlined below.

Overall, the four publications examined above provide a starting point for relating important ecomusicological approaches and arguments to the field of foreign language education. Ecomusicology researchers highlight the importance of ecological aspects involved in musical performance, as it is, for instance, apparent or presented in songs from various genres, and they also examine how music is produced and consumed. A critical analysis and reflection play an important role thereby, as does the practical implementation of change through alleviating crises through individuals' actions. This implicit understanding of environmental learning from the perspective of ecomusicology, which could be referred to as ecomusicological learning, largely complies with current perceptions of environmental learning in the foreign language classroom.

The implementation of environmental learning in foreign language classrooms is theoretically grounded in an interest in developing learners' critical environmental literacies. Initially defined by Misiaszek as the ability to analyse environmental problems

and reflect upon required actions (Misiaszek 21), and grounded in the critical pedagogy of Paulo Freire, a model for developing critical environmental literacies in foreign language classrooms was developed by Deetjen and Ludwig. It is based on three levels of individual and collective participatory practice: 1) the micro-level ('My class and I'), 2) the meso-level ('My community and I'), and 3) the macro-level ('My planet and I') (Deetjen, Ludwig). The primary focus of this model is to explore environmental topics and develop skills and competencies required to develop a deeper understanding of local and global environmental problems. As such, this requires learners' development within the domains of knowledge, attitudes, skills, and action. These domains can be addressed conceptually for teaching by applying ecomusicology to foreign language education.

To give an example, learners could analyse a song and its lyrics, find out more about the artists and their intentions, beliefs, and interests, and critically reflect upon the music making processes as well as, potentially, its performance. The extent to which artists are concerned about making their touring more sustainable could be addressed as well as the extent to which they advertise their greener touring through social media. A practical implementation of ecomusicology in foreign language education requires a conceptual model that illustrates key components that need to be considered in course design or lesson planning. The following section presents such a model, which is the result of the research presented in this section.

## Results

The analysis of major ecomusicological studies above provides a starting point for applying ecomusicology to foreign language education on four interrelated domains: 1) musicians, 2) music artefacts, 3) music in action, and 4) the environment (see Fig. 2). The research methodology, which involved an analysis of four major publications in the field of ecomusicology from a pedagogic perspective, revealed that these four domains are reoccurring issues in ecomusicological studies and theories. For the teaching of foreign languages, these four domains are central, as will be discussed below.

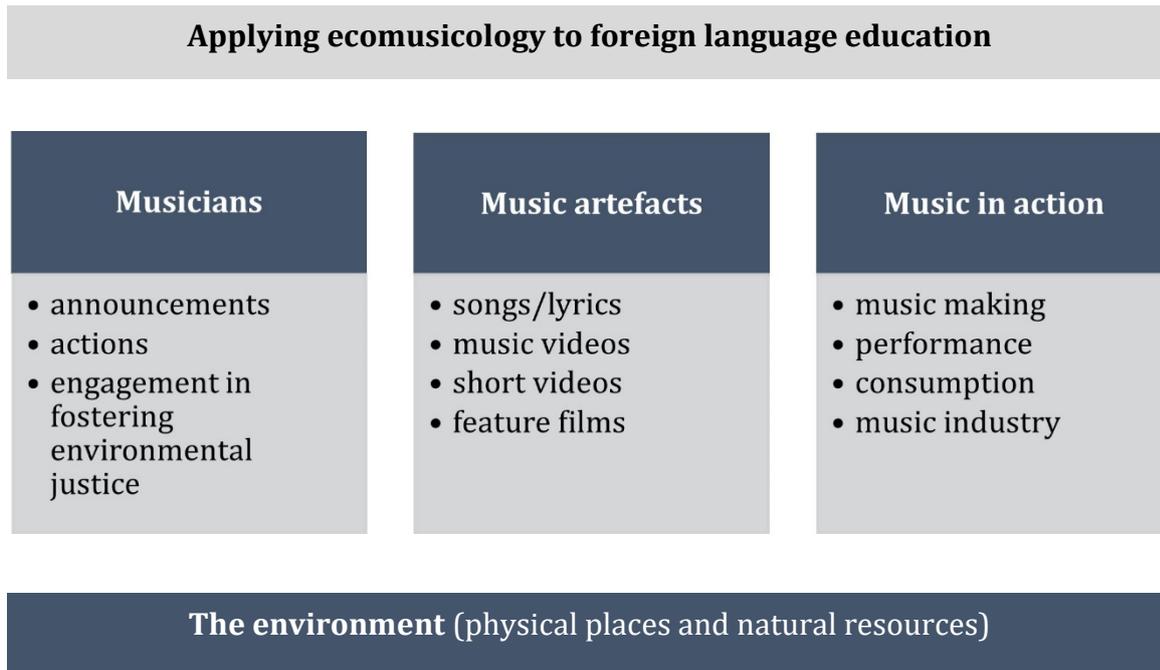


Fig. 2: Ecomusicology applied to foreign language education (own graph).

Music artefacts including songs/lyrics, music videos, short videos, and feature films, comprise the second domain. These can be described as the outcome of musical production and thus present authentic material that can potentially encourage environmental learning and the development of critical environmental literacies. Music artefacts, which could be considered a sub-category of eco-artefacts (Summer) can potentially play an important role due to the affective power of music in triggering emotions and making people more aware and emotionally involved in issues of environmental concern. Accordingly, in considering the potential of ecomusicology to become a successful bridging discipline between the sciences, arts, and humanities, Allen notes that “music, like history and literature, is a widespread phenomenon that can trigger powerful emotional responses, often quickly, making it a productive medium for environmental education messages” (Allen, “Ecomusicology: Bridging” 375). For foreign language teachers, the texts of music artefacts such as song lyrics or the audio-visual input through films serve as a multimodal input for the development of different language competences. Additionally, due to their capacity to trigger emotional reactions, music artefacts can act as a bridge to connect cognitive learning and emotional responses. This can potentially be a motivating impulse for engaging with environmental topics. What is more, music artefacts also play a key role in cultural diversity and music as a cultural heritage. Researchers looking into music sustainability have thereby considered strategies and interventions that aim to protect music diversity across the globe (Grant). Although this research interest is not directly applicable to foreign language learning, it illustrates that cultural and environmental learning are closely linked and that diversity across cultures generally and music cultures in particular both deserve to be considered from educators’ perspectives.

The third component of music, music in action, comprises all processes and resources involved in the performance or consumption of music including music making (e.g. the instruments and resources required) as well as the entire music industry (e.g. touring) and their environmental impact. Music can thereby play an important role in awareness concerts or the production of eco-documentaries and films. Interestingly, in this context, charities and political organisations have in recent years started to examine the sustainability of cultural performance. An example from England is the climate change charity *Julie's Bicycle*, which published an in-depth study of international touring and its greenhouse gas emission impacts in 2010 (*Julie's Bicycle*). The report examined emerging technologies and practices such as the lighting, sound systems, power generators, trucking and tour buses, musical instruments, and stage construction and disposal. Among the study's findings were that although professionals seem to be committed to take action, the industry was lacking the capacity, resources, and tools for environmental touring practices, calling for clear guidelines that help the industry to embed environmental considerations systematically (*Julie's Bicycle* 6).

A further report published almost ten years later by the aforementioned charity and the Arts Council England, the *Sustaining Great Art and Culture 2018/19* report, reveals some significant changes within the music industry. This report, which presents the successes of cultural organisations in acting on national and international climate targets, provides an overview of the potential avoided emissions and costs as well as various types of environmental action and their benefits. Key findings are that, in the category of 'developing understanding and skills', 80% say that environmental reporting helps better understand impacts, and, in the category of 'taking action', 64% are taking steps to eliminate single-use plastics and 29% are committed to sustainable food sourcing (Arts Council England 17). Consequently, there seems to be an emerging trend among professionals involved in the music and culture industry to make more sustainable choices. For foreign language pedagogy, an awareness of the complexity of those aspects involved in the music industry is important. Environmental reports such as those cited above provide educators with an insight into the numerous factors that contribute to greenhouse gas emissions and can thus be a valuable resource for the development of teaching materials. A selected and critical analysis of such reports and their intentions could enrich teaching practices.

Whereas some reports such as those mentioned above, take on a rather scientific approach and provide statistics on greenhouse gas emissions and sustainability measures, other reports are rather imprecise in their use of terms and follow other objectives. For instance, the *Global Music Report*, referred to in the introduction of this essay, mentions attempts by the music industry to foster a sustainable environment for music markets globally. A more detailed analysis of the outlines reveals, however, that an environmental or ecocritical approach is by no means integrated in its concept and the term "sustainable environment for music markets" seems to be used rather vaguely, focusing primarily on economic interest and investing in the people and infrastructure central to future growth (IFPI 11). Consequently, the potential conflict in interest between economic growth on the one hand and sustainability on the other deserve to be addressed.

Finally, the environment is listed as a fourth domain upon which the other three domains rest. This aims to illustrate the interconnectedness between the environment and the other three domains. The creation of musical instruments, for instance, may also raise environmental concerns. Whereas many organic materials used in instruments are byproducts of domestic livestock, such as skins made into drum heads, some musical instruments incorporate materials from endangered or threatened species that may threaten resource availability or result in criminal activity: for instance, elephant ivory or reptile skins (Allen, Libin). Although the foreign language classroom is not a music classroom that regularly makes use of musical instruments, learners' awareness of such issues could be raised, for instance, in cross-curricular projects. The majority of musical activities, for example listening to music, relies on physical places and resources, and learners should not take this for granted. The development of ecological literacies thus includes a consideration of the environment that human musical cultures are dependent upon.

Given the interconnectedness of the four domains of this conceptual model, the purpose and potential use of this model is to provide a starting point for including the dynamic field of ecomusicology in foreign language classrooms. Possibilities for application are discussed in the following section.

## Discussion

The conceptual framework of ecomusicology for foreign language education presented above serves multiple purposes. All four domains (musicians, music artefacts, music in action, and the environment) can be related to pedagogical purposes when inspecting music from an ecological perspective. These pedagogical purposes include three main aspects: 1) the development of lesson goals and topics grounded in eco-pedagogy, 2) the selection of texts and eco-artefacts suitable for environmental learning, and 3) the development of activities and tasks that aim to develop students' ecological literacies. To give an example, teachers can set lesson goals that are based on certain skills and competencies combined with all or some of the four ecomusicology domains. To fulfil these goals, suitable eco-artefacts and activities can be chosen and designed.

Importantly, in this context, music in this interdisciplinary approach does not merely serve as a prop. A combination of environmental learning with music can have various advantages by increasing student motivation, evoking positive emotional responses, and fostering critical thinking. Moreover, music can act as a catalyst in uniting people to become active global citizens. Although empirical research is needed to investigate the learning outcomes of combining music with environmental learning, it can be assumed that the emotional quality of music in general and the choice of learner-centred and music-related environmental topics can have a positive effect on student motivation. Investigating the extent to which an approach grounded in ecomusicology can foster environmental literacies would be of interest for future research.

Applying ecomusicology to foreign language education also requires a consideration of the role of educators. While aiming to develop their learners' critical

environmental literacies, they can act as environmental leaders. Allen uses this term, *environmental leaders*, to describe the potential of ecomusicology in bridging the sciences, arts, and humanities as follows:

Studying ecomusicology and achieving a better understanding of sound and music in general can help environmental leaders (a) use their imaginations, (b) appeal to audiences in intelligent and emotionally meaningful ways, (c) make informed decisions by taking into account a variety of sources of data, (d) consider diverse perspectives (aesthetically, philosophically, politically), (e) develop an ease with interdisciplinary approaches, and (f) think critically in new and innovative ways to solve problems and build teams. (Allen, "Ecomusicology: Bridging" 380)

Teachers at primary and secondary schools are often required to fulfil various interdisciplinary educational goals, which are laid out by syllabuses. In Germany, for instance, the State Institute for School Quality and Educational Research (ISB) in Bavaria presents interdisciplinary educational goals for all school types considered vital for everyday life and the economy, and for developing holistically educated personalities. These include a list of fifteen goals, many of which can be related to environmental learning, and one in particular refers to "global learning: education (*Bildung*) for sustainable development" (ISB; my translation). Both individual subjects, English for example, as well as cross-curricular projects can help to fulfil these goals. The English classroom, which can thematically be enriched from various disciplines and topics, is an ideal playground for dealing with sustainability issues or environmental problems. By appealing to learners in emotionally meaningful ways, for instance by analysing an eco-song and discussing the artist's perception of ecological sustainability, educators can potentially help learners in making principled decisions in the future. Furthermore, in teaching practice, an option would be to team-teach lesson sequences with a music teacher or in content and language integrated teaching projects. Importantly, a theoretically grounded application of ecomusicology to foreign language education can contribute to a greater recognition of the importance of eco-pedagogy and global education in foreign language classrooms. Discussing ecomusicology in foreign language education, both in universities as well as in in-service teacher training, can thus bring about practical innovative teaching formats.

If teachers are encouraged to act as environmental leaders, the question arises how the roles of learners can be defined. Given that in global education, learners are encouraged to "think globally and act locally" (Cates 278) and action comprises an important component of critical environmental literacies, as discussed previously, it is also important to note that the active component should not be overused in the classroom. This is because reminding students constantly that they need to lead more sustainable lives or encouraging them to embark upon local projects could potentially result in student fatigue and possibly even counteractive behaviour. Depending on the class, therefore, sensitivity to learners' needs and a choice of suitable environmental issues and eco-artefacts is essential. The following section provides some teaching suggestions to relate the theoretical outlines to practice.

## Practical Example: Analysing Eco-songs

One domain of applying ecomusicology to foreign language education comprises music artefacts. These include songs and song lyrics, music videos, short videos that integrate music, and feature films that address an environmental topic and integrate environmental music. Environmental songs, for which I suggest the use of the term *eco-songs* (Summer, “Eco-Songs”), comprise an authentic musical text format that can potentially involve learners at an emotional level while achieving a growing awareness of environmental problems and injustices, thus furthering critical environmental literacies. The environmental content of eco-songs can differ greatly. This applies to the topics and environmental issues addressed as well as the explicitness of environmental content in the songs themselves. Some eco-songs explicitly present an environmental content in the song title and its lyrics, such as “The Seed” by the Norwegian singer AURORA (released in 2019). This song sketches out a world where people have been too greedy with their resources and calls upon us to take better care of the earth because “one cannot eat money”. Other eco-songs specifically provide advice on more sustainable living, for instance, by encouraging people to “reduce, reuse, recycle”, an environmentalist slogan that is the subject of Jack Johnson’s soft rock song “The 3 R’s” (released in 2006). Due to the diversity and, partly also, the complexity of some eco-songs, a framework for song analysis is required.

This section presents a starting point for the analysis of the great variety of eco-songs based on the four domains of ecomusicology applied to foreign language education. The list of categories and key questions are provided in Table 1 illustrating the interrelated nature of the four ecomusicology domains. All of these are inspected in this list of eco-song questions by initially conducting a background analysis of the artist and the historical context (I), followed by a lyrics analysis (II), a music analysis (III), and a consideration of further influencing environmental factors (IV)—all of which lead to an individual analysis and interpretation of an eco-song (V).

The list of eco-song questions serves two main purposes: First, it aims to present teachers and materials writers with an overview of the great variety of aspects that can be analysed in eco-songs so that they can be integrated in a lesson sequence in a diverse way. Moreover, it can be treated as a pool of ideas and impulses for developing activities for learners when analysing eco-songs in class. Depending on the learners’ level of proficiency and the learning objectives, a selected few or all domains may be in focus. Generally speaking, therefore, the idea behind this list of eco-song questions is that an analysis of some of these questions can help learners understand the context of a song and critically reflect upon what it means to them and their lives.

I. Background analysis [DOMAIN: Musicians]	
1) <b>Artist(s)</b>	→ Who is the artist/performer of the song? → What are the artist's personal experiences and interests?
2) <b>History</b>	→ When was the song written/released? → What was happening at that time in the world/place(s) in focus?
II. Lyrics analysis [DOMAIN: Music artefacts]	
1) <b>Person</b>	→ Who is addressed in the song? → Are specific names/people mentioned? If yes, who?
2) <b>Place</b>	→ Is it a global song or does it refer to specific places? → Which places are dealt with?
3) <b>Themes</b>	→ Are the lyrics very general, vague, metaphorical, or specific? → What is the main topic of the song? → Which environmental issues are in focus (e.g. nature, earth, natural disasters, human actions, animals, environmental problems)?
4) <b>Perspective</b>	→ Is the song sung from the artist's perspective or is he/she imagining a different perspective? (If so, which one?) → What does the singer say about the song, its meaning (e.g. in interviews, social media)?
III. Music analysis [DOMAIN: Music in Action]	
1) <b>Instruments</b>	→ Which instruments are used or can be heard (in different parts of the song)?
2) <b>Singer</b>	→ Who sings the song (e.g. female/male/electronic/robotic voice, duo, group, choir)?
3) <b>Feelings</b>	→ How does the song feel to you (e.g. happy, sad, moving, fun, thoughtful, aggressive, uplifting, hopeful, depressing)?
IV. Influencing environmental factors [DOMAINS: Music in Action, Environment]	
1) <b>Music making</b>	→ How was the song/music video created? → To what extent is the music industry behind the song involved in sustainable music making (committed to reducing the environmental impact of music making) or sustainability projects?
2) <b>Reception</b>	→ How can the song be listened to and which opportunities does the artist provide to encourage sustainable music reception (e.g. in live concerts)?
→ V. INTERPRETATION	
1) <b>Artist's intention</b>	→ According to the artist's intention (e.g. online commentaries, interviews), what is the main message of the song?
2) <b>Listeners' opinions</b>	→ What do other listeners say about the song (e.g. online commentaries)? → Which issues do they discuss?
3) <b>Learners' opinion</b>	→ In your opinion, what is the artist trying to say? → Which phrases are important to you? → What can be criticised about the song, its content? → What questions can be addressed?

Table 1: Eco-song questions.

To give a more concrete example, eco-songs could be integrated in English language teaching to explore environmental and racial injustice. The hip-hop culture and rap songs are especially suitable for upper-intermediate classroom use because they often represent true dramatic experiences of the artists themselves or people affected by environmental injustice. In fact, some scholars such as Rosenthal emphasise the need “to position rap at the crossroads of African American literature and the predominantly white literary and critical field of environmental literature” (661). An ecocritical analysis of eco-songs could focus on the song “Minority Report” by the American rapper Jay-Z (released in 2006). It is an eco-rap song that criticises politicians such as George W. Bush and his lack of regard to the victims of Hurricane Katrina, described as “a stellar example of his [Jay-Z’s] underrated social commentary” (Brown). Jay-Z himself explains that “the hurricane was just an extreme example of the shit [e.g. poverty, murders, the worst schools, the sickest economy, corrupt cops] that was already happening in New Orleans” lamenting that “[w]e were all watching the story unfold but doing nothing” (Jay-Z 225). As such, this song is an example of an eco-song that not only addresses environmental issues, but also explicitly addresses racial injustice.

This song could be analysed in the classroom by focusing on two domains: 1) musicians and 2) music artefacts. As a part of the background analysis (domain 1: Musicians), learners could deal with Jay-Z’s life and experiences, some of which he presents in his autobiography *Decoded* (Jay-Z 2016). Balestrini, who analysed this work from the perspective of ecocriticism, emphasises that hip-hop deserves more holistic readings rather than reductionist views arguing that “*Decoded* provides an interface where ecocriticism, life writing, and artistic self-expression meet” (Balestrini 305). The American rapper Jay-Z makes the case for hip-hop in his autobiography by pointing out:

The world hip-hop describes is full of extremes and exaggerations, sometimes to make a dramatic point, sometimes to tell a more vivid story, sometimes for comic effect. It is the nature of storytelling, especially if it’s done in verse, to use more dramatic language and bigger gestures than real life, and to focus on moments of extremity. But those extremes and exaggerations look ridiculous unless there’s a core of truth. (Jay-Z 273)

In the lyrics analysis (domain 2: Music artefacts), various aspects can be analysed: the people (“We need help”, “the dead tonight”, “the federal government”, “Niggas off the chain”, “a refugee”, “poor kids”), the places (“here along the Gulf Coast”, “my country”), themes (natural catastrophes such as hurricane Katrina, racism, injustice), and perspectives (Jay-Z 224-6). In his autobiography, Jay-Z provides further information in some annotations. For instance, in the final part of his song (before the news excerpts outro), “**Can’t say we better off than we was before** / In synopsis this is my minority report” (Jay-Z 226; emphasis in original), he explains the bold phrase by saying that he repeats this line to refer to the money he donated, which he admits did not make much of a difference, and to the life before the Civil Rights Movement (Jay-Z 227). Given the complexity and variety of topics addressed, this song therefore not only opens up discussions about environmental issues, but also about environmental and racial injustice, which could thus be explored further with learners in subsequent lessons.

Overall, a practical implementation of ecomusicology in foreign language classrooms can take place in a great variety of forms. Whereas this section focused on eco-songs in particular, it only serves as one example of how ecomusicology can be included in teaching sequences, of which the multitude of options for multidisciplinary and content-based teaching needs to be explored as one way of hoping to alleviate environmental crises.

## Conclusion

“Developing more sustainable ways of life is difficult in a world where culture is increasingly independent of place. Yet ecological knowledge and consciousness are essential, especially for those with economic power and privilege” (Pedelty 201). This quotation highlights the importance of environmental learning in education across the globe, so that learners of today can become the environmental leaders of tomorrow. Allen, who uses the term *environmental leaders* to refer to people involved in improving environmental goals, notes in his conclusion that “[e]comusicology can help environmental leaders learn to listen—to the natural world, to other humans, and to each other” (Allen 380). This essay has presented a conceptual framework for the application of ecomusicology to foreign language education to illustrate how important aspects discussed in ecomusicological studies can be integrated in the discipline of foreign language teaching and learning. Four domains of ecomusicology applied to foreign language education were identified (musicians, music artefacts, music in action, the environment), which aim to provide a basis for further research in this field.

The underlying assumption of this paper is that the potential of music for developing critical environmental literacies has not yet been sufficiently explored. Considering that “musical knowledge can translate into action” (Pedelty 61), it is essential for foreign language researchers and educators to take ecomusicology as a new field of academic enquiry seriously and adopt their roles as environmental leaders by finding ways of integrating environmental learning and eco-artefacts in their teaching. The outline of eco-song questions (above) offers a pool of ideas for inspecting eco-songs as an example of applying ecomusicological studies to foreign language classrooms. Both teachers, materials developers, and learners can use this collection of questions to try to make sense of eco-songs and further interrelated aspects such as the music industry and the environment. The particular advantage of eco-songs may be that “[r]hymes can make sense of the world in a way that regular speech can’t” (Jay-Z 243). In effect, given the significance of sustainability in all areas of human life, the integration of music in foreign language teaching contexts can include an exploration of eco-songs as well as a consideration of other sustainability factors involved in the production and performance of music. Ingram acknowledges that “music is obviously not a solution to environmental problems in and of itself” (240), but, as noted above, he recognizes that “music can nurture our imaginative, emotional and spiritual responses to the natural world” and thus extend “human rationality” (238). It is most likely that music will not save the world. Music can, however, provide a starting point for learners to engage in the study of the cultural, social,

historical, physical, and intellectual connections with the environment that music represents.

Submission received 9 July 2020

Revised version accepted 23 February 2021

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