Reviews

Recent Publications, Films, and Music

The Ecomusicology Bibliography via Zotero
A Dynamic and Emerging Scholarly Resource

Aaron S. Allen and Miranda Freeman

The Ecomusicology Bibliography is a unique and unparalleled bibliography of books, articles, newspapers, websites, blogs, and multimedia sources. It is available to anyone with a computer and internet connection by using the free software Zotero, which allows users to quickly "collect, organize, cite, search, and share" research citations (www.zotero.org). The Ecomusicology Bibliography (henceforth E.B.) is a dynamic resource of scholarly, journalistic, and popular sources that aids in making connections between music, culture, and nature.

The following article explains 1) the idea and genesis of the E.B., 2) an overview of content, 3) a primer on accessing it, and 4) brief remarks on how it could emerge in the future. In essence, then, we aim to explain the why, what, how, and potential of this helpful tool. The E.B. is by no means complete, and its dynamic status means that it will only become truly useful with greater community involvement.

Why have an Ecomusicology Bibliography, and why use Zotero?

First and foremost, the E.B. via Zotero (henceforth, E.B.Z.) can be updated continually and without specialized administration or user training, and its content can be made available freely on the Internet. Because it can grow and ownership is not restricted, this situation is better than a bibliography written as a static document and then published, either in print or on-line, even when continually updated; such documents quickly age, are limited in what they can include, and do not have the keyword searching capabilities of the E.B.Z.

Second, the E.B.Z. is a convenient way to find quality resources that connect music, culture, and nature. Zotero has a powerful search capacity that allows users to find keywords of any kind in the citations, including those that have tags, bibliographic key words, or full text included. The E.B. is not a replacement for resources such as RILM, IIMP, and Music Index; rather, it can be used to supplement them. By including some popular and journalistic sources, such as blogs and the *New York Times*, the E.B. goes beyond those standard research databases. In so doing, users can make connections with the topics of their choice and follow up on them as their research necessitates.

Third, Zotero provides a useful interface for the management of one's own research materials. Zotero is designed to be an add-on to a web browser (Firefox, Chrome, Safari) or a stand-alone program (we will only discuss the former here); the browser connection is designed so that while searching your favorite on-line catalog or database (e.g. WorldCat or RILM), you can, with a single click, grab all the bibliographic information necessary; you can also take snapshots of entire webpages. With that citation now on your computer, you can then attach a document, such as a PDF of the article (or any other computer file), add tags/keywords, and incorporate personal notes. Then, you can categorize your citations into folders (one citation can exist in many folders, and if you update it in one place, it will be updated everywhere). You can perform quick or fine-tuned searches to find citations, then include them in documents in any citation style available. Further, you can sync all of your citations to Zotero's servers to back them up or to make them available from other computers; you can also set up a group of multiple users to share the library of citations — which is how the E.B.Z. works. Zotero.com. has a Video Tour on their Quick Start Guide that shows these and other features in a three-minute on-line video; below we provide instructions for installing and connecting to the E.B.Z.

ECOMUSICOLOGY BIBLIOGRAPHY (CONTINUED)

As a scholar, Aaron finds Zotero tremendously useful for finding, and searching within, all the PDFs (or other document formats) downloaded from on-line research services (e.g. JSTOR) or received via Inter Library Loan. By attaching each document to a citation, I can quickly search for it with a few keywords and call up the document to read it — faster than clicking through directory folders. I keep my own research notes always connected with the citation, so I can add key words there (or in tags) that I can later call up with a quick text search. In addition, when I'm ready to cite a source, Zotero is integrated completely with MS Word for easy management; I can quickly update between MLA and APA (or other) citation styles, and I can switch between note and bibliography formats (re-submissions made easy!). However, I often use Corel WordPerfect, which does not have an integrated plug-in like Word; no matter, because I can quickly export a single item or number of selected items and paste them into my document in the citation style of my choice.

The E.B. project came about as a way to understand the growing and widespread interest in what has (for better or worse) been called ecomusicology. Many scholars who engage with topics of nature in the context of music and culture do not explicitly use this term; further, finding their work was a challenge due the diverse interdisciplinary perspectives. It is easier to find and explore, for example, a body of knowledge on a composer, work, or place because her/his/its name will always be associated with the research. Exploring a body of knowledge on a topic is always more difficult because of the variety of terms used (for example, "philosophy" or "aesthetics" or even "thought" might be used interchangeably). As Raymond Williams pointed out (*Keywords*, 1976), "nature" is one of the most complex and multivalent terms in the English language, and so a resource was necessary to bring together applications of its various meanings in the context of music studies, while also trying to avoid some of its more general meanings.

Aaron began using Zotero in 2006; it was only in seeking to organize some of the relevant research for the inception of the ESG in 2007 that he requested funding for an Undergraduate Research Assistant (URA) from his employer, UNC Greensboro, to further develop the E.B. That project was funded first in 2008, and his URAs developed the AMS ESG website (www.ams-esg.org) and started adding items to a Zotero group account to be shared among them. In the meantime, Zotero engineers have updated and improved the software to a point that made sharing and collaboration more intuitive and glitch-free. Miranda is the third URA to work with him, and she has overseen the opening of the E.B.Z. to the public, mostly thanks to Zotero's own upgrades. Public access is the most important step in the process, for it is only with the input of many that the E.B. can be a truly useful resource.

What is in the Ecomusicology Bibliography?

The E.B. currently contains over 1,000 individual sources. There are fifteen "item types" of these citations: audio recording, blog post, book, book section (i.e. chapter), conference paper, document (i.e. unpublished source), encyclopedia, film, interview (typically on radio), journal article, magazine article, newspaper article, video, thesis, and web page. These types are useful for quick identification of the citation; moreover, Zotero adjusts the data fields for different types (e.g. a "book section" needs to have fields for editor and author, whereas a "journal article" needs only the author field). For some of these sources, full text is included if the content is freely available on the Internet (such as a blog), but not if it is behind a pay wall or other restriction (such as a journal on JSTOR).

All the sources are available in the main directory, but currently there is also a subdirectory that functions as a category filter of sorts. This filter is called a "saved search," and it functions by narrowing the materials to only "Scholarly Publications," here meaning the following items: books, book sections, conference papers, dictionary entries, encyclopedia articles, journal articles, and theses. Further, the way Zotero works, anything in a subdirectory is automatically in the main directory; therefore, one can search in the main directory to find all these types — a subdirectory just makes searches more targeted.

ECOMUSICOLOGY BIBLIOGRAPHY (CONTINUED)

Those data — numbers, types, and subdirectories/categories — are of the more statistical type, but they don't really give a feel for the content of the citations. A few examples may help in that regard. Many newspaper articles come from the *New York Times*; these might be reviews of performances or reports on composers/artists; regardless, all of these articles included in the E.B. have some connection with nature/ environment.

Many blog posts are from the sustainability website *Treehugger.com* (part of Discovery Communications and a top-ranking blog), which reports on, among many other environmental things: artists creating nature-based works, celebrities engaging in environmental advocacy, sustainable design innovations, scientific discoveries, etc.; all of the citations from Treehugger.com included in the E.B. have some connection with music/sound.

Of course, the E.B. also contains numerous scholarly books: from William Gardiner's *The Music of Nature* (1818) to David Ingram's *The Jukebox in the Garden: Ecocriticism and American Popular Music Since 1960* (2010). And there are a plethora of articles from fields as diverse as science, history, geography, and, of course, music. Journal titles include the mainstream, such as *Ethnomusicology, JAMS, and Green Letters*, as well as the lesser known, such as the 1972 issue of the *Guildhall School of Music and Drama Review*, which is the earliest printed instance of the word "ecomusicology" that we have found.

How does one access, contribute to, and edit the Ecomusicology Bibliography via Zotero?

There are two ways to quickly access the E.B.: as a guest or as a Zotero member. For guests, the ecomusicology bibliography is available at www.zotero.org/ groups/ecomusicology/items, but neither search nor citation export is available with guest view; all materials are viewable and sortable by type, but with only 25 items per page and with over 1000 items, finding useful items is limited. We recommend instead that users sign up for a free Zotero account at www.zotero.org and become a member of the group "Ecomusicology" and then simply sync through the Zotero interface. The following explains this process in more detail.

In order to use Zotero as a registered member, use the Firefox webbrowser (www.firefox.com) and download the Zotero plug-in for it from www.zotero.org and follow the installation instructions there. After installation, select the registration option from the top right of the page at www.zotero.org to sign up for free. Follow Zotero's instructions, which involve validating your email and logging in with your newly created username and password. A Zotero icon should also be visible at the bottom right corner of the browser window. (For some users, this Zotero icon does not appear automatically. In that case, select Zotero under the Tools menu in Firefox; then, click the gear icon and select Preferences. Under the General tab are preferences for the Status Bar Icon; select either the "Zotero" or "Z" option and restart Firefox.)

After installing Firefox with Zotero and registering, you must next become a group member of the E.B. in order to access the bibliography and synchronize Zotero files between your computer hard drive and the Zotero online server. While logged on to the Zotero website, select Groups, search for "ecomusicology," and then select Join. For technical reasons, requests to join the group currently must be approved manually. After your membership has been approved, click Zotero at the bottom right corner of the browser, and click the green arrow on the right side of the Zotero pane. When the green arrow stops spinning, "Ecomusicology" should be visible under the heading Group Libraries on the left third of the Zotero interface. Syncing regularly ensures that you have access to the most current information available in the E.B. By default, Zotero is set to sync with the server continually and automatically. To minimize traffic on the server and your internet connection, de-select "Sync automatically" in Zotero's Preferences; this option can be reinstated manually at any time.

For additional information and tips on using and managing Zotero software and libraries, visit www.ams-esg.org/resources/ ecomusicology-bibliography, and for Zotero support visit www.zotero.org/support.

ECOMUSICOLOGY BIBLIOGRAPHY (CONTINUED)

The Potential for Future Dynamism

Despite the diversity of materials in the E.B., it is in no way complete. Check it yourself: are your ecomusicologically relevant works is in it? Does it contain important works you think scholars engaging with ecomusicological topics should know about? If your answer to either of those questions is "no," then you can understand why the E.B. needs community input. The sources included are skewed by the fact that only a few individuals have contributed relevant items. To allow ecomusicology to be truly interdisciplinary, the E.B. needs more sources from fields such as ecology, literary ecocriticism, environmental history, cultural studies, ethnomusicology, soundscape studies, musicology and others such as cognition, music theory, and soundscape studies. These fields also need to be represented more internationally (e.g. with works from scholars in Australia, England, Finland, Germany, Iceland, etc.)

When you come across an interesting and relevant source relevant in some way to ecomusicological studies, you have a few choices. You could keep it to yourself, of course, drawing on it for your teaching or citing it in your research; in the latter case it might end up in a bibliography and, eventually, be published and available to those who look for it or happen upon it. But this situation shares the same problems the E.B.Z. set out to overcome: the information is difficult to find and not always accessible. Another choice would be to tell a few colleagues, perhaps sending an email with the news of an interesting bit of research that others would find useful or relevant. While this citation may reach a few very thankful individuals, it may also languish in an email box somewhere in the ether, particularly if no one publishes anything citing it. Finally, a third choice might be to spread the news as far and wide as you can by making it accessible, for all to find and use, on the Internet. If you posted it to your blog or personal webpage, you might inform a few folks who search using Google or something similar, or you might inform your friends who follow you regularly. But if you include it in the E.B.Z., then everyone who really wants to know will have access to it. Such a situation is useful not only for publicizing your own published work, but also for sharing relevant resources you find so that the field of ecomusicology can be advanced.

The E.B.Z. does have some drawbacks. While Zotero is developing some accessibility features (e.g. for the visually impaired, or for those who use voice-recognition software), they are not fully compatible. Zotero is open source software, and so developments are constantly in progress and the software can change. The E.B. itself can give a false impression of comprehensiveness due to its size and apparently limitless possibilities for growth, but it cannot be the only research possibility for ecomusicology; it must be used alongside others. The E.B. also may become overburdened with too many citations, be they very relevant or only marginal. But these are problems a community of scholars and engaged users can overcome.

While the community of E.B. users must grow to continually add new resources, the community must also strike a balance in carefully managing the resource. To that end, the community must contain users willing to offer feedback, contributors willing to contribute, and administrators willing to manage the content. Furthermore, we will need to extract a few select sources for occasional highlighting and discussion, which is an ideal column for future editions of the Ecomusicology Newsletter. If you're interested in getting involved, please contact Aaron S. Allen (aaron.s.allen@gmail.com) or the E.B.Z. directly (ecomusicology@gmail.com).

www.ams-esg.org/resources/ecomusicology-bibliography