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# Classical Guitar Music in Printed Collections: A New Index and a Model for Indexing Instrumental Music in Score Collections

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# CLASSICAL GUITAR MUSIC IN PRINTED COLLECTIONS: A NEW INDEX AND A MODEL FOR INDEXING INSTRUMENTAL MUSIC IN SCORE COLLECTIONS

ELLWOOD COLAHAN ♦ 1 JULY 2014

## *Abstract*

*Classical Guitar Music in Printed Collections* is a new, open-access, online index to the contents of published score collections for classical guitar. Its interlinked, alphabetized lists allow one to find a composition by title or composer, to discover what score collections include that piece, to see what other works are included in each collection identified, and to locate a copy in a library collection. Accuracy of identification is guaranteed by incipit images of each work. The article discusses how this index differs from existing bibliographies of the classical guitar literature, its structure and design, and technical details of its publication.

## **Introduction**

The impetus for the creation of *Classical Guitar Music in Printed Collections* came from a variety of sources. One of these was my own experience as a student, and later as a teacher, of the classical guitar. Owning a number of score collections myself, and having access to many more through our own library and resource sharing arrangements with other libraries, I was only too aware of the complete lack of a tool that would allow me to locate a particular piece within one of these collections.

A second impetus came from my later experience using print indexes to score collections in my daily work assisting patrons in the Bonfils-Stanton Foundation Music Library at the University of Denver. Heyer's *Historical Sets, Collected Editions, and Monuments of Music*<sup>1</sup> is, for example, a good

place to start when searching for a scholarly edition of a piece in a composer's collected works, unless the edition happens to be indexed in the works list of the composer's article in *New Grove*. It also works well for "monumental" collections like *Musica Britannica* or *Denkmäler der Tonkunst in Österreich*, even though it is considerably out of date by now, having been published almost 35 years ago. A successor project, Hill & Stephens' *Collected Editions, Historical Series and Sets, and Monuments of Music*,<sup>2</sup> was published in 1997; but only the bibliographic volume was ever produced. The planned index to the collections listed was to be issued on CD-ROM,<sup>3</sup> but this index was never released; the entire project was instead published by EBSCO as a subscription online database, known as *Index to Printed Music*.<sup>4</sup> One limitation of IPM (as with Heyer) is that it deals only with scholarly editions, rather than performing editions. Another is that, since it is published as a subscription database, it can only be accessed by individuals with access to a research library (or other institution) with the resources to deploy it. Heyer's original work was a self-contained, two-volume print set that could be purchased by anyone.<sup>5</sup> *Classical Guitar Music in Printed Collections*, on the other hand, is a freely accessible resource for any user with access to an Internet-connected computer.

### **Literature Review: A Perceived Need and an Ongoing Problem**

The problem of indexing the content of score collections is a recognized issue, but one that has been discussed little in the recent literature of music librarianship. A search of the articles published over the last ten years in *Music Reference Services Quarterly* revealed only one on this topic; a similar search in *MLA Notes* showed none at all. In the *MRSQ* article, author Margaret Kaus<sup>6</sup> describes the problems associated with print indexes when searching for vocal repertoire in score collections, and describes how the University of Tennessee began compiling its own in-house index as early as 1980, later moving to an online format, where it is still accessible today. Kaus's article also notes that other institutions have stepped into the gap left by the absence of current print indexes by creating their own

online indexes to song collections.

A number of bibliographies of the classical guitar literature do exist. These include *Classical Guitar Music in Print*<sup>7</sup> and its *1998 Supplement*,<sup>8</sup> as well as the older *Guitarist's Resource Guide*,<sup>9</sup> and the more recent *Guitarist's Repertoire Guide*.<sup>10</sup> *Guitar Music Index*<sup>11</sup> is the earliest example of this type. These general works are of limited to no use in gaining access to the content of collections.

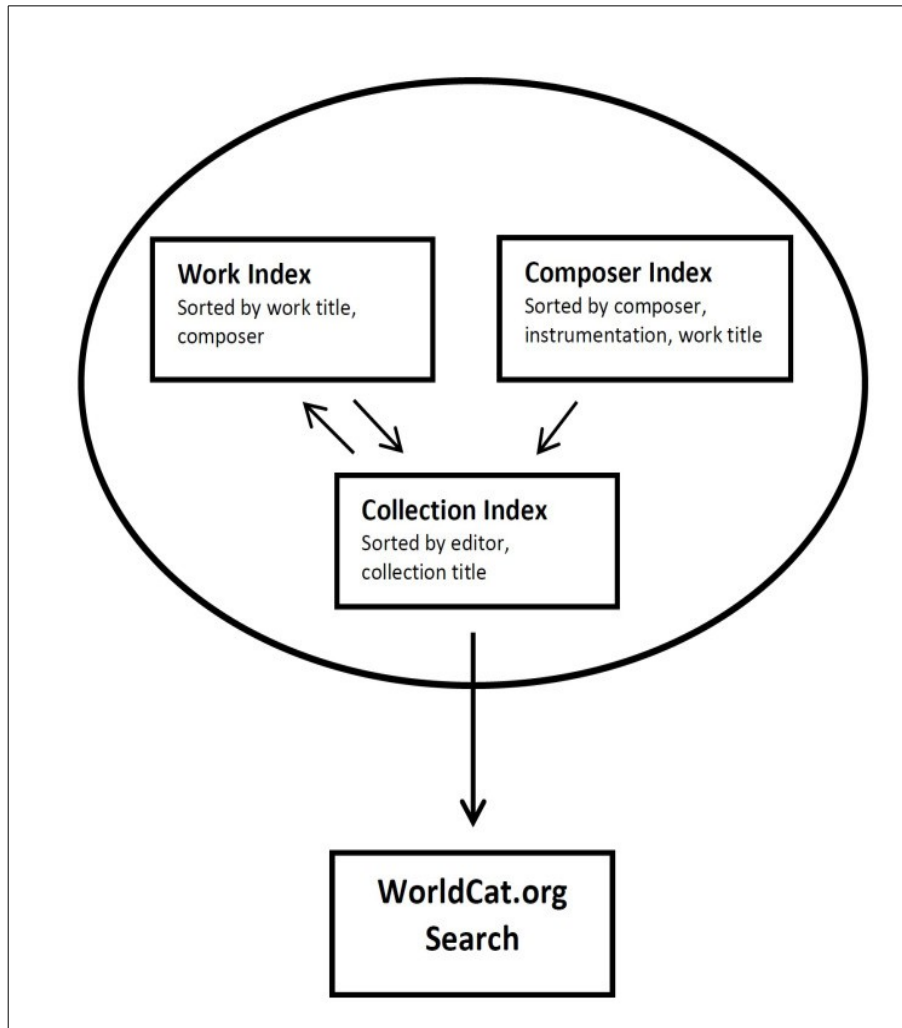
### **Design and Structure of *Classical Guitar Music in Printed Collections***

*Classical Guitar Music in Printed Collections* is a static index, rather than a searchable database. Its design is intended to emulate that of print indexes like those described above, while including newer features made possible by the electronic platform. The most important of these features is the fact that it is updated continuously: as soon as new content is added to the index, it is published to the Web. Another important feature is the interlinking between the various indexes, so that an entry in the Composer Index or the Work Index links automatically to the citation of a collection in the Publication Index, which in turn links out to a search for that item in WorldCat.org. Another, unique feature of the index is the inclusion of incipit images of each work. The incipits are especially important in the context of classical guitar repertoire, both because of the generic nature of many instrumental music titles, and because of the notoriously slipshod way title authority has always been treated in guitar publications. The incipits provide the kind of specificity that could otherwise be achieved only with a thematic catalog index like BWV numbers or Köchel numbers, which generally do not exist for guitar composers. Incipits would be impractical in a print index because of the amount of space they occupy, but space constraints on the Web are not the same as those in a print volume.

Rather than submitting a query to this kind of index, all of its contents are displayed for the user to scan or search as desired.<sup>12</sup> This can mean that it requires more time to find a specific, desired item, but it also allows the serendipitous discovery of items of which the searcher may not even have been

aware. This is a not-insignificant advantage that a browsable index has over a queried database.

*Classical Guitar Music in Printed Collections* is structured as three separate indexes: a Work Index, a Composer Index, and an index of publications (fig 1).



*Figure 1: A diagram showing how the three indexes are linked together.*

The Work Index has a separate entry for each composition, or each movement within a composition where appropriate (fig. 2). Each entry includes five elements:

1. title of the work

2. composer
3. score incipit
4. collection title where it is found
5. editor of the collection

## Guitar Music in Collections

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### A Carolina

Composer: Ferrari, Giacomo Gotifredo

Allegro spiritoso

Ca-ro-li-na amo-ro-set-ta, ti co-nos-co, sei fur-

[Songs for Voice and Guitar](#)

Jeffery, Brian

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### A Day in the Life of a Fool

Composer: Bonfá, Luiz Floriano (arr. Charles Duncan)

p i m im 2 4 2 p 2p 4p p p i m p p

[Finger Style Pop Classics](#)

Duncan, Charles

---

Figure 2: The Work Index sorts works by title and includes incipits.

Entries are sorted alphabetically by the title of the composition. In a case where a composition is found in more than one collection, there are a corresponding number of entries, each showing the

incipit of the work in that particular collection. In each entry, the title of the collection is formatted as a hyperlink that points to the entry for that collection in the Publication Index.

## Composer Index

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### Aguado, Dionisio

#### 1 Guitar

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Aguado, Dionisio  
*Adagio*



[World's Favorite Solos for Classic Guitar](#)  
Vinson, Harvey

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Aguado, Dionisio  
*Adagio in E Minor*



[Music For Classical Guitar](#)  
Vinson, Harvey

Figure 3: The Composer Index sorts by composer and performance medium, then by title.

Entries in the Composer Index are very similar to entries in the Work Index (fig. 3). Each entry in the Composer Index includes the same five elements, but the composer appears first, and the index is sorted alphabetically by the composer's name. Under the heading for each composer, this index is

further sorted alphabetically by performance medium, so that works for “1 Guitar” are listed first, followed by works for “2 Guitars,” then works for “Flute & Guitar,” “Voice & Guitar,” etc. As in the Work Index, the collection title in each entry of the Composer Index is hyperlinked to the corresponding entry in the Publication Index.

The Publication Index is different from the Work Index and Composer Index: each entry consists of a citation to a particular collection, with the contents listed underneath (fig 4). These contents are sorted alphabetically, first by performance medium, then by composer, and finally by work title. Each work title is then hyperlinked back to the corresponding entry in the Work Index. The citation for the collection is a hyperlink that generates a search in WorldCat.org on the title and author of that collection (fig. 4). This WorldCat search can be used to locate a physical copy of the collection. Many WorldCat.org entries also include links to Amazon.com, Barnes & Noble, and Better World Books, so that a user may purchase a copy for their own collection.

The three indexes are hyperlinked from a home page, <http://guitarmusicincollections.com>, which offers an introduction to the website, an explanation of its structure, and tips for using it effectively.

## **Technical Considerations**

A static index is much simpler and easier to produce than a searchable database. *Classical Guitar Music in Printed Collections* was produced, and is regularly updated, without any reference to technologies such as SQL querying or PHP scripting. The only software skills required were a passing familiarity with a common database management application, and a knowledge of basic html.

In its original form, the project was created in Microsoft Access 2007. The structure of the database is extremely simple, being made up of a single table much like a spreadsheet document, with three database “report” designs, one for each index. Custom report design in MS Access allows the composition of unique formulas that combine html code with database output values, so that outputting



# Collections of Guitar Music

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[Bellow, Alexander, ed. \*International Anthology of Music for Guitar Solo\*. New York: Franco Colombo, 1965](#)

## 1 Guitar

Alberti, Domenico

[Giga](#)

Anonymous

[Saltarello del passo mezzo](#)

[Gagliarda tamburina](#)

[Se lo m'accorgo](#)

Barbetta, Giulio Cesare

[Gagliarda del passo e mezzo detto il moderno](#)

Baron, Ernst Gottlieb

[Suite: Le Drôle](#)

[Suite: Bourée](#)

[Suite: Gigue](#)

[Suite: Courante](#)

[Suite: Menuet](#)

[Suite: Sarabande](#)

[Suite: Allemande](#)

Batchelar, Daniell

[Almaine](#)

Figure 4: The Publication Index lists the contents of the collection under each citation. Work titles link back to the Work Index, and the citation links to a WorldCat.org search.

a report generates all the html that is used in the index pages. This automatically-generated code includes the hyperlinks from one index page to another, the tags that display the incipit images, and the

Home Search

OCLC WorldCat®

ti:International Anthology of Music for Guitar Solo au:Bellow, Alexander

Advanced Search Find a Library

Search results for 'ti:International Anthology of Music for Guitar Solo au:Bellow, Alexander'

Format

- All Formats (6)
- Musical score (5)
- Book (1)

Refine Your Search

Author

Alexander Bellow (5)

Year

1969 (5)

1965 (3)

Language

Undetermined (3)

English (1)

Results 1-6 of about 6 (.19 seconds)

Select All Clear All Save to: [New List] Save

1. [International anthology of music, for guitar solo \(twelfth through eighteenth centuries\)](#)  
by Alexander Bellow;  
Musical score : Dance forms : Fantasias : Minuets : Pavaues : Rondos : Suites  
Language: No Linguistic Content  
Publisher: New York, F. Colombo [1965]  
Database: WorldCat  
[Editions and formats »](#)
2. [International anthology of music for guitar solo](#)  
by Alexander Bellow;  
Musical score  
Language: No Linguistic Content  
Publisher: Melvill : Belwin Mills, cop. 1969.  
Database: WorldCat
3. [International anthology of music for guitar solo : \(twelfth through eighteenth centuries\)](#)  
by Alexander Bellow;  
Musical score  
Language: English  
Publisher: New York : Franco Colombo, [©1965]  
Database: WorldCat  
[Editions and formats »](#)
4. [International Anthology of Music for Guitar Solo \(12th-18th Centuries\)](#)  
by Alexander Bellow  
Book  
Publisher: 1969.  
Database: WorldCat

Figure 5: The WorldCat search is formatted as a title / author search in order to bring together as many different records for the same publication as possible.

links that generate searches in WorldCat. The code output from the database software is pasted into one of three simple templates or html “containers” that already include the required head and body elements for a well-formed html document, along with a snippet of tracking code from Google Analytics, and each index page is complete. There is absolutely no editing of the html code in the indexes.

This ease of production makes it extremely simple and quick to update the site online whenever

new content is added to the index. After adding the contents of a new volume, three reports are output from the database. The code from each is copied and pasted into the appropriate container and saved, and the updated index pages are ready to be uploaded to the server with an FTP client, along with the new incipit images. Then the home page is updated to show the newly-indexed volume in the list of volumes indexed, and the process is complete.

The most time-consuming part of the process is the production of the incipits themselves. This requires the score pages to be scanned, the area of each incipit to be selected by hand, the selected image pasted into a graphics editor and rotated as necessary to be even and straight, and then cropped and saved as a separate file. This can take an average of around two minutes per image. The title, composer, and other bibliographic information much also be entered by hand, but this takes much less time.

Although the project was originally designed using Microsoft Access 2007, using this software contained some drawbacks, since it was costly and ran only on the PC/Windows platform. [Note: Access is available only as a component of the Professional or Enterprise versions of MS Office.] The entire project was migrated soon after its initial design to LibreOffice Base, a component of the LibreOffice application suite that emulates closely the features of MS Access. The modifications necessary to allow the project to run on LibreOffice were found to be minimal.<sup>13</sup>

LibreOffice is a fork of the OpenOffice Project, and is a MS Office-compatible suite of office productivity applications released to the public as free, open-source software. It is available in versions for Windows, Mac OS, or Linux, thus eliminating the cost barrier and virtually all hardware or software compatibility issues. In a systematic effort to eliminate cost barriers to a project of this kind, I found free and/or open-source software to carry out all other aspects of the project, as well. The incipits are selected and captured with Adobe Reader; rotated and edited in the graphics editor GIMP; batch resized to uniform dimensions in IrfanView, and batch renamed (to synchronize with the automatically-output indexes) with Bulk Rename Utility. New data is entered in LibreOffice's spreadsheet application, and

completed files are uploaded to the server with the FTP client Filezilla.<sup>14</sup> The index pages are hosted on a University of Denver server, while the home page is maintained in a free WordPress.com account. The software and hosting cost for the project is zero.<sup>15</sup>

## **Conclusion**

*Classical Guitar Music in Printed Collections* intends to make discoverable the considerable body of classical guitar repertoire available in printed score collections. (Although the extent of content indexed is as yet modest, it is growing steadily.) For the first time, the contents of collections and anthologies in libraries around the world can be searched and identified with complete accuracy. No tool has previously existed for this purpose. It was created using minimal technological expertise, and for a resource cost of zero, beyond the time spent indexing content. It is part of an overdue move away from print indexes and toward continuously-updated online indexes of the literature, spearheaded by indexes of the vocal literature. One of the unique features of this particular index is the inclusion of score incipits, which provide a specificity of work-identification otherwise difficult to achieve, especially with guitar music.

*Classical Guitar Music in Printed Collections* is produced using custom formulas in common database management software, a technology that can be mastered by anyone, and requires no special training in Web or database technologies. The modest nature of the resources needed to create it inspires me to hope that it will spur the creation of similar indexes in other parts of the musical literature. I would be happy to share with any interested persons the design details that make this web index work.

- 1 Anna Harriet Heyer, *Historical Sets, Collected Editions, and Monuments of Music*. 3rd ed. (Chicago: American Library Association, 1980).
- 2 George R. Hill and Norris L. Stephens. *Collected Editions, Historical Series and Sets, and Monuments of Music: A Bibliography*. Fallen Leaf Press Books in Music 14. Berkeley, CA: Fallen Leaf Press, 1997.
- 3 As evidenced by notes in the original bibliographic records for this work still in use by many institutions. See for example <[http://bianca.penlib.du.edu/record=b1644882~S3\\*eng](http://bianca.penlib.du.edu/record=b1644882~S3*eng)>, <[http://libraries.colorado.edu/record=b2636218~S3\\*eng](http://libraries.colorado.edu/record=b2636218~S3*eng)>, or <<http://catalog.lib.rochester.edu/vwebv/holdingsInfo?bibId=1539544>>.
- 4 See <<http://www.ebscohost.com/academic/index-to-printed-music-ipm>>.
- 5 Major online vendors still offer a number of used copies at a reasonable price.
- 6 Margaret Kaus, "Online Song and Analysis Indexes at the University of Tennessee Music Library," *Music Reference Services Quarterly* 9, no. 1 (Apr. 2006): 29-36.
- 7 Mijndert Jape, ed., *Classical Guitar Music in Print* (Philadelphia: Musicdata, 1989).
- 8 Donald Reese, ed., *Classical Guitar Music in Print: 1998 Supplement* (Philadelphia: Musicdata, 1998).
- 9 Joseph Rezits, *The Guitarist's Resource Guide* (Park Ridge, IL: Pallma Music, 1983).
- 10 Andrew Liepins, *The Guitarist's Repertoire Guide* (Nottingham: SCG Publications, 1999).
- 11 George Gilmore and Mark Pereira, *Guitar Music Index* (Honolulu: Galliard Press, 1976); George Gilmore and Peter Kun Frary, *Guitar Music Index: Vol. II* (Honolulu, Galliard Press, 1981).
- 12 Using the native search capability of one's Web browser, accessed by simultaneously pressing "ctrl" and "F" (for "find") can greatly facilitate the location of a target name or title keyword.
- 13 At the present time, I am maintaining the project on both platforms, MS Access and LibreOffice Base, because of the possibility that future developments may make it desirable to use either one instead of the other. Actual production of the web-based indexes, however, is performed using LibreOffice.
- 14 LibreOffice, GIMP, and Filezilla are cross-platform, open-source freeware. Adobe Reader is cross-platform proprietary freeware. IrfanView and Bulk Rename Utility are proprietary freeware for MS Windows. Any of these software applications can be located and downloaded with a basic Google search.
- 15 I registered a domain for the site at a cost of \$18/year, but that was an entirely optional expense.