

Musical Instrument Classification System Group Paper

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LIS 640

December 5th, 2013

Musical instruments cover a pantheon of objects and definitions. The typical definition, provided by the online version of the Oxford English Dictionary (2013), of a musical instrument is “an object or device for producing musical sounds.” For the purposes of this classification system that was created to organize and catalog musical instruments from different museums and institutions, a musical instrument is a physically tangible external object that is manually manipulated to produce a musical sound. Historical, tribal, and archaic instruments are included in this schema, as they are still utilized and need to be properly organized.

Existing Cataloging and Classification Systems for Musical Instruments

Due to musical instruments being around as long as humankind can remember, there are also many existing ways to organize and classify these objects. The most well-known and commonly used classification system was developed by Erich Mortiz von Hornbostel and Curt Sachs in 1914. This system identifies instruments based on their method of vibration as it relates to sound transmission to create five different main groups (Bains & Wachsmann, 1961; Music Dictionary, 2013):

- idiophones - instruments that produce sound by vibrating themselves
- membranophones - instruments that produce sound by a vibrating membrane
- chordophones - instruments that produce sound by vibrating strings
- aerophones - instruments that produce sound by vibrating columns of air
- electrophones - instruments that produce sound electronically

The Hornbostel-Sachs system utilizes a similar number classification system as the Dewey Decimal system. This system is also hierarchical, meaning that each instrument is first categorized as one of the five types above and then further separated into groups based on its characteristics. These subclassification groups are then given a specific classification number for storage and retrieval (Kartomi, 1990).

Another musical instrument classification system is the Musical Instrument Museums Online (MIMO), which is the world’s largest open-access database for musical instruments. Currently, it contains around 45,000 instruments with more than 70,000 images. The main musical families are wind instruments (bagpipes and flutes), stringed instruments (lutes, violins and zithers), keyboard instruments (harpsichords and pianofortes) and percussion instruments (drums and xylophones). The subcategories include title, repository, instrument maker and date of manufacturing. Each item contains identification (title, repository, inscription and description), classification (object type, classification, instrument keyword and Hornbostel-Sachs class), events (event type such as production, date and place), digital resources (resource type such as image and hyperlinks to view pictures) and original record (raw metadata) (MIMO, 2011).

Classification System

The classification system that will be used for the UNCG Museum is based heavily upon the two existing classification systems listed above (i.e., Hornbostel-Sachs and MIMO) with the added components of Getty's Categories for Description of Works of Art (CDWA). CDWA identifies itself as: "...a framework to which existing art information systems can be mapped and upon which new systems can be developed or data may be linked in an open environment." (Harpring, 2013).

Some basic things to remember: All entries will have the first letter capitalized. All names will have the first letter of each name capitalized and will be written first name followed by last name. All place names will be capitalized. As much detail as is known should be given for each field, this prevents repetitive or blank fields.

- **Hornbostel-Sachs Class**

- This field will classify the instrument based on how it produces sound and adhering to the numerical classification and the five categories as defined by the system.
- Information in this field should be entered classification number first, followed by the category name in which the instrument falls, with no end punctuation, as follows:
 - 311.112, Chordophone (or)
 - 111.21, Percussion Idiophone

- **Name/Title of Object**

- This field will provide the name of the object. If the piece is not titled, a specific description may be used.
- Information in this field should be entered with no end punctuation, as follows:
 - With name: Mona Lisa
 - Without name: Portrait of a woman
 - Utilitarian object, unnamed: Piano

- **Origin:**

- This field will provide information on where the piece was created with as much information as is known.
- If location is not known, just the country may be listed. IN the case the country is not known, a region may be listed.
- The order will be country, state and province (if known)
- Information in this field should be entered with no end punctuation as follows:
 - Italian, Florence (or)
 - American, New York, Quogue

- **Creator**

- This field will name the maker or creator of the object with as much information as is known. If the item is made by corporation that does not give artistic credit, the name of the corporation may be used.
- If the name of the maker is not known, the field may be filled in as “unknown maker”
- The name of the maker will be listed first name first, then last name followed by dates of birth and date of death, if applicable, in parenthesis.
- Information in this field should be entered with no end punctuation, as follows:
 - Leonardo da Vinci (1452-1519)

- **Date of Creation**

- This field will provide the date of creation of the object with as much information as is known.
- Date format will be: Year, Month, Day
- If the exact date of creation is not known, just the year may be used. IF the year is not known, a dat span may be used. For objects prior to recorded history, an era may be used.
- Information in this field should be entered with no end punctuation, as follows:
 - 2013, October 20 (or)
 - 2013, October (or)
 - 2013 (or)
 - circa 2000-2013 (or)
 - Paleolithic

- **Materials**

- This field will describe the materials used to make the object.
- The entry should be as specific as possible, first listing basic material followed by more details if known.
- If exact material is not know, an entry listing a general description such as, wood or metal, will suffice.
- Small items on object such as dials or keys may be listed after the primary building material and held in parenthesis.
- Information in this field should be entered with no end punctuation, as follows:
 - Wood, Poplar/Maple/Oak

- **Clef/Pitch/Range**

- This fiend provides information for the natural pitch of the instrument using the musical clef definition. The exact range of the instrument may also be listed if known.
- Information in this field should be entered with no end punctuation using the standard

musical definition system for clef, followed by written range if known, as follows:

- Treble Clef (or) Bass Clef
- Treble Clef, G3-A7

- **Size**

- This field will provide the physical size of the object.
- The size will be listed first using the Imperial system followed by a listing using the Metric system in parenthesis.
- Size will be entered length, followed by width, and then height, or all of of the information known in that order.
- Information in this field should be entered as follows with punctuation varying:
 - 5.3 x 7.4in (13.4 x 18.8cm)

- **Inscriptions/Descriptions/Notations**

- This field will list all defining markings such as inscriptions, modifications, or art work on the item.
- The presence of carving, painting, serial numbers, signatures, damage or any other markings separating the item from others like it.
- Any artwork on an item and no produced by the maker of the item should list the artist, if known, in the same format as the creator field (see above).
- Information in this field should be entered with most notable markings first, punctuation varies.

- **Location**

- This field will provide the current physical location of the item.
- The institution should be listed first, followed by the location of the institution in parenthesis, followed by the name of the exhibition or collection that houses it.
- If the object is not on display, this field will provide the information above and is storage location, rather than floor location.
- Information in this field should be entered with no end punctuation, as follows:
 - UNCG Museum (Greensboro, NC), American Folk Music Collection (or)
 - UNCG Museum (Greensboro, NC), Cabinet 1, Row 1A

- **Accession Number**

- This field will provide the accession number which further classifies the object.
- The accession number for the UNCG Museum is assigned by first listing the year of acquisition, then the number assigned to the particular object. For example, paintings are number 2, and musical instruments are number 10, and so on. The last number listed documents the acquisitions arrival, so number 25 is the 25th item of the given type

that we acquired in a given year.

- Each number is separated by a period.
- Information in this field should be entered as follows:
 - 2013.2.10 for the tenth painting we acquired in 2013.
 - 2013.10.10 for the tenth instrument we acquired in 2013.

Collection Retrieval

A limited number of musical instruments will be on display in the front of the museum library for public viewing. These will include ten instruments of lesser value from each of the four main Hornbostel-Sachs classes. Each class of items will be on display together. The remaining will be shelved in temperature and humidity controlled rooms with a security system. The instruments will be organized by the aforementioned classification field named location. The public will have limited viewing of the instruments with supervision of a librarian. Additionally, the public may access the collection online via a MIMO based search engine.



Example Worksheet

Hornbostel-Sachs Class:	423.233.1, Aerophone
Name/Title of Object:	Trumpet, coiled
Origin:	German, Celle/Tyskland
Creator:	Otto Steinkoph (1904-1980)
Date of Creation:	1960-1965
Materials:	Brass
Clef/Pitch/Range:	Treble Clef, F#3 – D6
Size:	33.6 in (85.34 cm), 7 in bell (17.78 cm)
Inscriptions/Descriptions/Notations:	N/A
Location:	UNCG Museum (Greensboro, NC), Famous Makers Collection
Accession Number:	2013.10.1

References

Harpring, P. (2013). *Categories for the Description of Works Art*. Retrieved November 9, 2013 from http://www.getty.edu/research/publications/electronic_publications/cdwa/index.html.

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Kartomi, M. J. (1990). *On Concepts and Classifications of Musical Instruments*. Chicago: University of Chicago Press.

Music Dictionary (2013). *Hornbostel-Sachs*. Retrieved November 9, 2013 from <http://www.music.vt.edu/musicdictionary/texth/Hornbostel-Sachs.html>.

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Oxford Dictionaries (2013). *Instrument*. Retrieved November 9, 2013 from http://www.oxforddictionaries.com/us/definition/american_english/instrument.