

Preliminary Models for a Database of Composition Styles of Twentieth Century Composers

by

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Music Library Association
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Baltimore, Maryland

ABSTRACT

The Contemporary Music Subject Access Roundtable, last year identified a problem: genre terms for twentieth century music are needed by the users of the bibliographic utilities and other music librarians. This is the first step. Now we must strive toward a structure for the data.

This paper presents two models for preliminary consideration by the Roundtable. The well-known usage as discussed in the MARC Formats Subcommittee meeting of the Music Library Association in 1991 at Indianapolis centered on the individual bibliographic record as the store of information.

My proposals are for a separate database for this material. The first is an authority record based system, similar to or integrated with those authority control systems of the Library of Congress, OCLC, and several local systems. Data is added in a variable field, with the source of the stylistic identification given. This puts the identification at the composition title level rather than at the edition level, since the form/genre is unlikely to change from the original composition to an arrangement, but the medium of performance, date of revision, etc. may change.

The second consists of a thesaurus, list by composer and work, with indexes by term, date of compositions, and medium performance.

An alternative is to use a relational database, such as PARADOX, to store the information relating to individual compositions. A secondary relational file may contain the bibliography of sources used to define the forms/genres. Other relational files can be used to hold the various definitions of a genre and identify the sources of these definitions. Presently, this appears to be to complex or cumbersome for convenient use.

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Originally this was to be an analysis of the structure needed for a database of contemporary music and its genres. However, I discovered that the list that had been developed lacked vocabulary control. Such a thesaurus of terms needs to have the controlled vocabulary approach to be effective. For example, is aleatoric a narrower term for indeterminacy? Does Indeterminacy encompass chance, aleatory, and other terminology, or are these related terms, or yet still interchangeable terms?

Musique concrete is now interchangeable with electronic music, but this was not true in the 1950s. But is there a desire to state the nature of the sounds in an electronic piece, such as Otto Luening's *Fantasy in Space* with flute sounds or Vladimir Ussachevsky's *Piece for Tape Recorder* having piano sounds?

I see the need for coordinated efforts with the thesaurus committee and the electronic music subject headings working group. We can draw on the terms they develop, plus contribute to them. This approach will give our terms the uniformity they need in the definitions.

I will propose two alternatives to the bibliographic record. Not all libraries index or even input data from the MARC 045, 047 and 048 fields. Therefore we need a system all can use, the Library on Congress Name Authority File.

Last year's MARC Formats Subcommittee meeting discussed codes(1991). Today with the advent of 486 and higher personal computers, written text can be indexed and searched.

The Library of Congress Name Authority File offers a simple solution to the placement of the information. These records are available widely, and used for a variety of purposes. They provide a central point for information about a particular composition. One reason for using the authority record is that you can add the source of information to the record in the 678 or other field between 670 and 680. In this way, we will know that a published reputable source, like John Vinton's *Dictionary of Contemporary Music*, describes Earle Brown's 25 *Pages* as "Open form."

Some modified and created Name Authority Records would appear like this:

ARN: nnnnnn Rec stat: n
Entered: 19920220 Replaced: 19920220
Type: z Enc lvl: n Source: Lang:
Roman: ü Upd status: a Mod rec: Name use: a
Govt agn: ü Ref status: n Subj: a Subj use: a
Series: n Auth status: a Geo subd: n Ser use: b
Ser num: n Auth/ref: a Name: a Rules: c
010 n nnnnnnnn
040 DLC \$c DLC
100 10 Babbitt, Milton, \$d 1916- \$t Compositions, \$m woodwinds, strings
670 Babbitt, M. Composition for four instruments, 1949.
678 **Serialism**; \$b Vinton, John. *Dictionary of Contemporary Music*, 1974.

ARN: nnnnnn Rec stat: n
Entered: 19920220 Replaced: 19920220
Type: z Enc lvl: n Source: Lang:
Roman: ü Upd status: a Mod rec: Name use: a
Govt agn: ü Ref status: n Subj: a Subj use: a
Series: n Auth status: a Geo subd: n Ser use: b
Ser num: n Auth/ref: a Name: a Rules: c
010 n nnnnnnnn
040 DLC \$ DLC
100 10 Boulez, Pierre, \$d 1925- \$t Sonatas, \$m piano, \$n no. 3
670 Boulez, P. TroisiŠme sonate pour piano, 1961-1963
678 **Open form**; \$b Vinton, John. *Dictionary of Contemporary Music*, 1974.

ARN: nnnnn Rec stat: n
 Entered: 19920220 Replaced: 19920220
 Type: z Enc lvl: n Source: Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: n Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n nnnnnnnn
 040 DLC \$ DLC
 100 10 Boulez, Pierre, \$d 1925- \$t Structures, \$n book 1
 670 Boulez, P. Structures : premier livre [pur] 2 pianos `a 4 mains.
 678 **Serialism**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: 1871843 Rec stat: c
 Entered: 19870609 Replaced: 19870611
 Type: z Enc lvl: n Source: Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: a Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n 87101854
 040 DLC \$c DLC \$d DLC
 100 10 Brown, Earle, \$d 1926- \$t Folio. \$p December 1952
 400 10 Brown, Earle, \$d 1926- \$t December 1952
 400 10 Brown, Earle, \$d 1926- \$t December
 670 Pro Musica da Camera. Prima vista [SR] 1982?: \$b label (December) container
 (December 1952 aus Folio)
 670 New Grove \$b (Folio. December 1952)
 678 **Prose music**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: 1871845 Rec stat: c
 Entered: 19870609 Replaced: 19870611
 Type: z Enc lvl: n Source: Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: a Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n 87101901
 040 DLC \$c DLC \$d DLC
 100 10 Brown, Earle, \$d 1926- \$t Folio. \$p November 1952
 400 10 Brown, Earle, \$d 1926- \$t November 1952
 400 10 Brown, Earle, \$d 1926- \$t November
 400 10 Brown, Earle, \$d 1926- \$t Synergy
 670 Pro Musica da Camera. Prima vista [SR] 1982?: \$b label (November) container
 (November 1952 aus Folio)
 670 New Grove \$b (Folio. November 1952 (Synergy))
 678 **Prose music**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: nnnnnnn Rec stat: c
 Entered: 19920220 Replaced: 19920220
 Type: z Enc lvl: n Source: Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: a Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n 87101854
 040 DLC \$c DLC \$d DLC
 100 10 Brown, Earle, \$d 1926- \$t Music, \$m piano trio
 670 Brown, E. Music for violin, cello, and piano, 1972.
 678 **Prose music**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: 2429653 Rec stat: n
 Entered: 19881228 Replaced: 19881228
 Type: z Enc lvl: n Source: c Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: a Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 no 88002159
 040 InU-Mu \$c InU-Mu
 100 10 Brown, Earle, \$d 1926- \$t Twentyfive pages
 400 10 Brown, Earle, \$d 1926- \$t 25 pages
 400 10 Brown, Earle, \$d 1926- \$t Twenty-five pages
 670 Brown, E. Twentyfive pages, c1975.
 678 **Open form**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: 1733817 Rec stat: n
 Entered: 19870116 Replaced: 19870116
 Type: z Enc lvl: n Source: c Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: a Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n 86130495
 040 NjP \$ c DLC \$d DLC
 100 10 Cage, John. \$t Mesostics re Merce Cunningham
 400 10 Cage, John. \$t Sixty-two mesostics re Merce Cunningham
 400 10 Cage, John. \$t 62 mesostics re Merce Cunningham
 670 Cage, J. Sixty-two mesostics re Merce Cunningham, 1971.
 678 **I Ching**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: nnnnnnn Rec stat: n
 Entered: 19920220 Replaced: 19920220
 Type: z Enc lvl: n Source: c Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: a Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n nnnnnnnn
 040 DLC \$c DLC
 100 10 Cage, John. \$t Musical changes
 678 **I Ching**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: nnnnnnn Rec stat: n
 Entered: 19920220 Replaced: 19920220
 Type: z Enc lvl: n Source: c Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: a Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n nnnnnnnn
 040 DLC \$c DLC
 100 10 Cage, John. \$t Theater piece
 678 **Happenings**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: nnnnnnn Rec stat: n
Entered: 19920220 Replaced: 19920220
Type: z Enc lvl: n Source: c Lang:
Roman: ü Upd status: a Mod rec: Name use: a
Govt agn: ü Ref status: a Subj: a Subj use: a
Series: n Auth status: a Geo subd: n Ser use: b
Ser num: n Auth/ref: a Name: a Rules: c
010 n nnnnnnnn
040 DLC \$c DLC
100 10 Cage, John. \$t Water music
678 **Happenings**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: nnnnnnn Rec stat: n
Entered: 19920220 Replaced: 19920220
Type: z Enc lvl: n Source: Lang:
Roman: ü Upd status: a Mod rec: Name use: a
Govt agn: ü Ref status: a Subj: a Subj use: a
Series: n Auth status: a Geo subd: n Ser use: b
Ser num: n Auth/ref: a Name: a Rules: c
010 n 90689369
040 DLC \$c DLC
100 1 Feldman, Morton, \$d 1926- \$t Intermission, \$n no. 6
400 10 Feldman, Morton, \$d 1926- \$t Intermission VI
400 10 Feldman, Morton, \$d 1926- \$t Intermission 6
400 10 Feldman, Morton, \$d 1926- \$t Intermission six
670 Feldman, M. Intermission VI, 1963
678 **Open form**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: nnnnnnn Rec stat: n
Entered: 19920220 Replaced: 19920220
Type: z Enc lvl: n Source: Lang:
Roman: ü Upd status: a Mod rec: Name use: a
Govt agn: ü Ref status: a Subj: a Subj use: a
Series: n Auth status: a Geo subd: n Ser use: b
Ser num: n Auth/ref: a Name: a Rules: c
010 n nnnnnnnn
040 DLC \$c DLC
100 10 Foss, Lukas, \$d 1922- \$t Elytres
670 Foss, L. Elytres
678 **Open form (Variable phrase sequence)**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: nnnnnn Rec stat: n
Entered: 19920220 Replaced: 19920220
Type: z Enc lvl: n Source: Lang:
Roman: ü Upd status: a Mod rec: Name use: a
Govt agn: ü Ref status: a Subj: a Subj use: a
Series: n Auth status: a Geo subd: n Ser use: b
Ser num: n Auth/ref: a Name: a Rules: c
010 n nnnnnnnn
040 DLC \$c DLC
100 10 Foss, Lukas, \$d 1922- \$t Fragments of Archilochos
670 Foss, L. Fragments of Archilochos
678 **Open form (Variable phrase sequence);** \$b Vinton, John. Dictionary of
Contemporary Music, 1974.

ARN: nnnnn Rec stat: c
Entered: 19920220 Replaced: 19920220
Type: z Enc lvl: n Source: Lang:
Roman: ü Upd status: a Mod rec: Name use: a
Govt agn: ü Ref status: n Subj: a Subj use: a
Series: n Auth status: a Geo subd: n Ser use: b
Ser num: n Auth/ref: a Name: a Rules: c
010 n nnnnnnnn
040 DLC \$c DLC \$d DLC
100 10 Kagel, Mauricio. \$t Transición, \$n no. 2
670 Kagel, M. Transición II, c1961.
678 b. 1931
678 **Open form (Variable pitch);** \$b Vinton, John. Dictionary of Contemporary
Music, 1974.

ARN: 1151407 Rec stat: c
Entered: 19840919 Replaced: 19860711
Type: z Enc lvl: n Source: Lang:
Roman: ü Upd status: a Mod rec: Name use: a
Govt agn: ü Ref status: n Subj: a Subj use: a
Series: n Auth status: a Geo subd: n Ser use: b
Ser num: n Auth/ref: a Name: a Rules: c
010 84011803
040 DLC \$c DLC \$d DLC
100 10 Stockhausen, Karlheinz, \$d 1928- \$t St • cke, \$m piano, \$n no. 11.
670 His Nr. 7 : Klavierst • ck XI, 1957
678 **Open form;** \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: 2715134 Rec stat: c
 Entered: 19900403 Replaced: 19900526
 Type: z Enc lvl: n Source: Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: n Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n 90626914
 040 DLC \$c DLC \$d DLC
 100 10 Stockhausen, Karlheinz, \$d 1928- \$t Studien, \$m electronic music, \$n no. 1
 670 Furlani, P. Uno studio musicale all'elaboratore, 1988: \$b t.p.
 678 **Serialism**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: nnnnnnn Rec stat: c
 Entered: 19920220 Replaced: 19920220
 Type: z Enc lvl: n Source: Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: n Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 nnnnnnnn
 040 DLC \$c DLC \$d DLC
 100 10 Stockhausen, Karlheinz, \$d 1928- \$ Zyklus
 670 His Zyklus, 1961
 678 **Open form**; \$b Vinton, John. Dictionary of Contemporary Music, 1974.

ARN: nnnnnnn Rec stat: c
 Entered: 19920220 Replaced: 19920220
 Type: z Enc lvl: n Source: Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: a Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n nnnnnnnn
 040 DLC \$c DLC \$d DLC
 100 10 Stravinsky, Igor, \$d 1882-1971 \$t In memoriam Dylan Thomas.
 670 His In memoriam Dylan Thomas.
 678 **Serialized pitch (5 note)**; \$b Vinton, John. Dictionary of Contemporary Music,
 1974.

ARN: nnnnnn Rec stat: c
 Entered: 19920220 Replaced: 19920220
 Type: z Enc lvl: n Source: Lang:
 Roman: ü Upd status: a Mod rec: Name use: a
 Govt agn: ü Ref status: a Subj: a Subj use: a
 Series: n Auth status: a Geo subd: n Ser use: b
 Ser num: n Auth/ref: a Name: a Rules: c
 010 n nnnnnnnn
 040 DLC \$c DLC \$d DLC
 100 10 Stravinsky, Igor, \$d 1882-1971 \$t Threni.
 670 His Threni
 678 **Serialized pitch (5 note)**; \$b Vinton, John. Dictionary of Contemporary Music,
 1974.

We also need to define our terms in a more standard fashion, using published sources as references, sources which are considered "expert" in the field of the musicology of contemporary composers. Sources like John Vinton's *Dictionary of Contemporary Music* will offer many headings we desire.

We must set a hierarchy for the terms and the sources from which they are derived. I believe we should use as many terms as possible which are already established for use in the bibliographic utilities. LCSH has established Chance compositions as a valid MARC 650. *New Harvard* states that "the term chance music is preferred by many composers." Aleatory and Indeterminacy would then be cross references.

Do we use Microtonic music, the LC subject heading, to describe the composition or Microtonal notation to describe the graphic qualities? Do we subdivide Microtonic music by division per octave or by tone, semitone, or quarter-tone?

To make a more uniform selection of terms, the order of choice for terms could possibly be LCSH (when compatible), John Vinton's *Dictionary of Contemporary Music*, Paul Griffiths' *Thames and Hudson Encyclopaedia of 20th Century Music*, Reginald Smith Brindle's *The New*

Music, and *New Harvard Dictionary of Music*, then other sources. I must say that I was initially disappointed with Stuart Smith's *Words and Spaces*.

We then construct the thesaurus of terms and the list giving the evaluative source for our decision regarding individual composers and works.

A selection of thesaurus entries might look something like this:

Chance compositions

- UF Aleatory
- Indeterminacy
- NT Chance compositions (Pitch)
- Chance compositions (Rhythm)
- Happenings
- I Ching
- Open form
- Stochastic
- RT Complete determinacy
- Mixed media

Chance compositions (Pitch)

- UF Indeterminacy (Pitch)
- BT Chance compositions

Chance compositions (Rhythm)

- UF Indeterminacy (Rhythm)
- BT Chance compositions

Frame notation

- BT Notation

Graphic notation

- UF Aleatoric notation
- BT Notation

Happenings

- BT Chance compositions

I Ching

- BT Chance compositions

Microtonic music

- NT Microtonic music (19 per octave)
- Microtonic music (24 per octave)
- Microtonic music (31 per octave)
- Microtonic music (36 per octave)
- Microtonic music (Variable Temperaments)
- BT Notation

Microtonic music (19 per octave)

- BT Microtonic music

Microtonic music (24 per octave)

- UF Quarter-tone microtonic music
- Microtonic music (Quarter-tone)
- BT Microtonic music

Microtonic music (31 per octave)

- BT Microtonic music

Microtonic music (36 per octave)

- UF Sixth-tone microtonic music
- Microtonic music (Sixth-tone)
- BT Microtonic music

Microtonic music (Variable temperaments)

- UF Variable temperaments microtonic music
- BT Microtonic music

Notation

- NT Frame notation
- Graphic notation
- Proportional notation
- RT Microtonal notation

Open form

- BT Chance compositions
- NT Open form (Variable pitch)
- Open form (Variable phrase sequence)

Open form (Variable pitch)

- BT Open form
- Variable pitch open form

Open form (Variable phrase sequence)

- BT Open form
- Variable phrase sequence open form

Pointillism

Proportional notation

UF Proportionate notation
Time-space notation
BT Notation

Prose music

Serialism

NT Serialized articulation
Serialized duration
Serialized dynamics
Serialized pitch
Serialized range
Total serialism

Serialized articulation

BT Serialism

Serialized duration

BT Serialism

Serialized dynamics

BT Serialism

Serialized pitch

BT Serialism
Serialized pitch (5 note)
Serialized pitch (9 note)
Serialized pitch (12 note)
Serialized pitch (Variable number sets)

Serialized pitch (5 note)

BT Serialized pitch

Serialized pitch (9 note)

BT Serialized pitch

Serialized pitch (12 note)

UF Twelve tone system
BT Serialized pitch

Serialized pitch (Variable number sets)

BT Serialized pitch

Serialized range

BT Serialism

Total serialism

UF Integral serialism

BT Serialism

Stochasticism

BT Chance compositions

UF Controlled aleatorism

Controlled chance

Controlled indeterminacy

RT Complete determinacy

A list of compositions could be thus constructed from such a thesaurus. All of these were verified in the Vinton dictionary:

Form/Composer	Title/Medium	Year
Happenings		
Cage, John.	Theater piece	1952
Cage, John.	Water music	1952
I Ching		
Cage, John.	62 mesostics	
Cage, John.	Musical changes (piano)	1951
Open form		
Boulez, Pierre	Sonata no. 3 (piano)	1956-57
Brown, Earle	25 Pages (1-25 pianos)	1953
Feldman, Morton	Intermission VI	1953
Stockhausen, Karlheinz	Klavierstücke XI	1956
Stockhausen, Karlheinz	Zyklus (percussion)	1959
Open form (Variable pitch)		
Kagel, Mauricio	Transción II	1958-59
Open form (Variable phrase sequence)		
Foss, Lukas	Elytres	1964
Foss	Fragments of Archilochos	1965
Pointillism		
Brown, Earle	Music for violin, cello and piano	1952
Prose music		
Brown, Earle	Folio	1952-53
Serialism		
Babbitt, Milton	Composition for 4 instruments	1948
Boulez, Pierre	Structures I	1952
Stockhausen, Karlheinz	Studien, electronic music, no. 1	1956
Serialized duration		
Boulez, Pierre	Structures Ia	1952
Serialized pitch (5 note)		
Stravinsky, Igor	In Memoriam Dylan Thomas	1954
Stravinsky, Igor	Threni	1957-58

At this point, a relational database would be less standard than a word processing program such as Word, WordPerfect or ASCII. It requires, from my early observations, a more complicated approach.

In conclusion we should take the following steps:

- 1) Create a thesaurus of terms;
- 2) Create a list by composer of works and their characteristics, because multiple stylistic terms may be applied to one composer;
- 3) Create indexes by terms used to describe the music, date of composition, and medium of performance where known. We need to give source, in a fashion similar to that used by Aaron I. Cohen in the *International Encyclopedia of Women Composers*. Usage of the name authority file as the location of information should also be explored.

References:

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Cohen, Aaron I. *International Encyclopedia of Women Composers*. New York: Books & Music USA, 1987.

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