Metadata Standards for Archival Control:  
An Introduction to EAD and EAC  

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SUMMARY. This article provides a concise guide to the structure and use of the Encoded Archival Description (EAD) and Encoded Archival Context (EAC) metadata standards. After a brief outline of archival description, the finding aid, and the objectives behind EAD, the structure of EAD is examined in detail. Discussion of all of the important elements in the EAD document-type definition (DTD) will be supplemented with examples of actual finding aids and their encoding, with attention to the common necessity of “reengineering” existing finding aids. The current status of EAD implementation and some issues affecting the widespread adoption of EAD are considered. A close look at the emerging EAC standard closes the article, providing key element definitions from the EAC Tag Library (Beta version, Feb. 2004), and examples of EAC records—including early implementations such as the University College London’s LEADERS project. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2005 by The Haworth Press, Inc. All rights reserved.]
ARCHIVAL CONTROL

The goal of cataloging is to provide maximum access to organized information. Archival materials—the unique, unpublished by-products of the everyday activities of organizations, families, or individuals—are valuable information resources that have been difficult to integrate into the rapidly consolidating bibliographic universe. The formal introduction of Encoded Archival Description (EAD) Version 1.0 in 1998 provided archivists with a powerful tool for overcoming this difficulty. EAD enables the encoding of archival finding aids into records that are platform-independent, machine-readable, and fully searchable, helping to standardize archival descriptive practices while increasing our progress toward union access to archival materials. The related new metadata scheme Encoded Archival Context (EAC) goes further, allowing archivists to encode information about the creators and context of creation of archival materials, and to make that information available to users as an independent resource separate from individual finding aids. This article presents an overview of the role of these metadata standards in the achievement of archival control, featuring a concise guide to the structure and use of EAD (Version 2002) and an introduction to the emerging EAC standard.

The structure of archival entities is hierarchical, proceeding from the most to the least comprehensive level. The names given to the various levels vary, particularly between American and Anglo-Canadian practices. The term collection, as used in an American archival context, usually refers to a group of materials associated with an individual, a family, or a corporate body, which may have been generated either “organically” (as a by-product of the everyday life/operations of the person or family or corporate body) or “artificially” (i.e., regardless of provenance). The term fonds, more commonly used in Anglo-Canadian practice, has a narrower denotation than “collection” in that it refers exclusively to organically generated records and documents. The evidential and research value of the interrelated materials within fonds is strongly tied to their provenance, the context of their common origins. The fundamental archival principle of “respect du fonds” mandates that archival materials be arranged and described with careful attention to their original function and order.
Archival description is also hierarchical, beginning with information pertaining to an entire whole (whether a collection, fonds, series, or other unit) and following with descriptions of the subordinate levels within the whole. Unlike bibliographic description, which usually focuses on an individual manifestation of a published work, an archival description typically involves a complex group of interrelated unique materials whose shared provenance (or lack thereof, in an “artificial” collection) and hierarchical arrangement must be articulated. A MARC record is an effective “surrogate” with which to describe and provide access to a bibliographic item. Collection-level MARC records for archival materials also continue to be useful for providing limited access to these materials in library catalogs. But the main tool for archival description is the finding aid, which allows for a much more detailed presentation of an archival entity’s context and hierarchical arrangement.

The term finding aid can be loosely applied to a wide range of formats, including card indices, calendars, guides, inventories, shelf and container lists, and registers. The more specific denotation of the term used in current archival practice is summed up in the following definition (Pearce-Moses 2004):

[A] finding aid is a single document that places the materials in context by consolidating information about acquisition and processing; provenance, including administrative history or biographical note; scope of the collection, including size, subjects, media; organization and arrangement; and an inventory of the series and the folders.

Beyond these general shared characteristics, finding aids vary greatly, both due to the differences in the described archival entities themselves and as a result of differing practices between archival repositories and/or national archival traditions. (See Appendix 1 for an invented sample print finding aid.) Until very recently, there was no authoritative content standard governing the creation of finding aids. The most relevant standards had been the American archival cataloging manual Archives, Personal Papers, and Manuscripts (APPM) (Hensen 1989), the Canadian Rules for Archival Description (RAD) (Canadian Committee 2003), and the General International Standard for Archival Description (ISAD(G)) (International Council 2000). The CUSTARD project (Canadian-U.S. Task Force on ARchival Description) worked to synthesize these standards into “a robust data content standard for the description of archival standards based on a harmonization of APPM and RAD within the framework of ISAD(G)” (Statement of Principles 2003).
The result was *Describing Archives: A Content Standard (DACS)* (Society 2004), which now replaces *APPM* in the United States as the content standard for the creation of catalog records and finding aids for archival materials.

**EAD BACKGROUND**

As late as the early 1990s, finding aids for archival materials existed mainly in paper copies held by the repositories of those materials. To be sure, preliminary efforts at providing union access to archival materials were long underway: the Library of Congress’s print *National Union Catalog of Manuscript Collections* [NUCMC] began to appear in 1962; Chadwyck-Healy released their *National Inventory of Documentary Sources in the United States* on microfiche in 1983; and the USMARC Archival and Manuscripts Control (MARC AMC) format was released by LC in 1984, allowing the introduction of collection-level MARC records for archival materials into library catalogs (my principal source for this account of EAD’s prehistory is (Ruth 2001)). But neither the NUCMC nor MARC AMC records could provide access to all the descriptive information available in finding aids, while the microfiche format remained non-machine-readable and not searchable.

In the early 1990s, remote access to and keyword searching of finding aids became possible through the appearance of the Internet and of Gopher technology (using ASCII text files). The World Wide Web and HTML (HyperText Markup Language) subsequently enabled a more sophisticated display of online finding aids along with the additional navigational advantages made possible by hyperlinks. But because HTML is an SGML (Standard Generalized Markup Language) “document type definition” intended only for displaying hypertext or hypermedia on the Web, it cannot capture the underlying intellectual structure represented in a finding aid. HTML elements determine such things as the font size or line breaks of a document; they cannot encode the difference, for example, between information describing the provenance of an archival fonds from information about its scope and content, or the difference between a personal name and a corporate name. But such distinctions are critical for search and retrieval and indexing. A finding aid encoded only in HTML is in that regard “flat,” or retrievable only via keyword searching, which is notoriously inefficient.

EAD is the result of an effort begun in 1993 at the library of the University of California, Berkeley, led by Daniel Pitti, to develop a nonpro-
proprietary standard for encoding finding aids that would overcome these limitations of HTML. Pitti’s objectives for the new standard included:

- Accurate representation of archival principles and practice, including hierarchical arrangement
- Support for element-specific indexing and retrieval
- Support for intelligent access to and navigation of archival materials
- Improved communication and sharing of collection information between repositories

The approach Pitti and his team chose was to create a new document type definition (DTD) in SGML for encoding finding aids. SGML is an international standard metalanguage that can be used to define the rules for the structure of any kind of document. Within an SGML document type definition, a specific set of markup tags is defined to encode the different parts of a document of a given sort, such as an archival finding aid. In order to create a new DTD for finding aids that would be maximally useful to archivists—as flexible as need be yet structured enough to encourage consistency in archival practice—Pitti gathered a wide variety of sample finding aids from many different repositories and set about constructing a DTD that would best accommodate them.

In 1995 the Berkeley team submitted their resulting FINDAID DTD for wider review. In late 1998, after considerable refinement (including a name change to Encoded Archival Description) based on feedback from the wider archival community to numerous trial versions, Version 1.0 of the EAD DTD was released. Version 1.0 was the first iteration of EAD to be compliant with the new XML (Extensible Markup Language) standard. (XML is a simplified version of SGML intended for use on the Web that is considerably easier for programmers and software developers.) The latest version of the EAD DTD, updated to maintain compatibility with the 2000 edition of ISAD(G), is EAD Version 2002.

**EAD STRUCTURE**

The EAD DTD is an XML file that defines a set of tags and structural rules for encoding archival finding aids. Archivists using EAD to encode a finding aid will, in practice, most likely not be working directly with the DTD file, but instead will be consulting the *Encoded Archival Description Tag Library* (currently Version 2002) and the *Encoded Archival Description Application Guidelines* (1999). The Tag Library lists
all the defined EAD elements along with their coding tags and explains and provides examples of their use.

Each element has a full name, such as EAD Header, along with a machine-readable tag name that appears between angle brackets in lowercase, e.g., `<eadheader>`. Many elements can be refined with particular attributes, which appear within the same set of angle brackets as the tag name, along with the attribute(s)’ given value. For example, the element Archival Description, whose tag is `<archdesc>`, can be refined with the attribute [level] set to the value “collection,” appearing as:

```
<archdesc level ="collection">
```

This signifies that the hierarchical level of the archival materials being described is a “collection,” but the value could be changed to “fonds,” “series,” “file,” etc., as necessary. Other important attributes include [label] and [encodinganalog]. The [label] attribute is used to supply a display label for an element when a heading element `<head>` is not available. The optional attribute [encodinganalog] can be used to provide a comparable element from a different encoding system, such as MARC; its use may enable archivists to derive collection-level MARC records from finding aids automatically.

EAD is a hierarchical scheme in which elements are nested within one another. (This structure can be seen in Appendix 2, which shows the encoded version of the sample finding aid from Appendix 1.) Some elements can contain text directly, while other elements are intended to help structure the finding aid into sections and cannot take text directly but instead must contain other elements inside them—these structural elements are called “wrapper elements.” The outermost wrapper element, used to introduce an encoded archival finding aid, is Encoded Archival Description `<ead>`. The level below `<ead>` has three high-level sections, also wrapper elements: EAD Header `<eadheader>`, Front Matter `<frontmatter>`, and Archival Description `<archdesc>` (see Figure 1). The `<eadheader>` and `<frontmatter>` wrapper elements open sections that include information about the finding aid itself, while `<archdesc>` contains the actual description of the archival materials in question. The EAD Header is a required element used to capture metadata about the creation and publication of the finding aid document itself; its consistent use enables more efficient search and retrieval in a machine-readable environment. It must contain the sub-elements `<eadid>` and `<filedesc>`, and may also contain the optional sub-elements `<profiledesc>` and `<revisiondesc>` (see Figure 2).
Front Matter is an optional wrapper element that can be used to generate a title page and/or other prefatory text about the finding aid itself, rather than information about the archival materials. Much of this title page information may be repeated from the <eadheader>, but using <frontmatter> allows archivists some leeway for local practices regarding sequence and display. Since the same flexibility can be achieved by using stylesheets to extract and display the relevant information from the <eadheader>, <frontmatter> is often omitted.

Archival Description <archdesc> is the wrapper element for the core of the EAD finding aid, the description of a body of archival materials. The <archdesc> element has a required attribute, [level], for which a value is set to identify the level of archival materials involved, for example, “collection.” The description is hierarchical, so in this example the description would begin with information that pertains to the entire “collection.” This description of the whole “collection” is then inherited by each of the parts (e.g., “series”) outlined within the Description of Subordinate Components <dsc> sub-element. These “series” may then have their own more specific descriptions, and may further contain their own parts (e.g., “subseries”), and so forth.

Figure 3 lists the top-level elements within <archdesc>, along with brief descriptions adapted from the Tag Library. The DTD mandates

<table>
<thead>
<tr>
<th>Tags</th>
<th>element names</th>
<th>information content</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;eadheader&gt;</td>
<td>EAD Header</td>
<td>creation and use of the finding aid itself</td>
</tr>
<tr>
<td>&lt;frontmatter&gt;</td>
<td>Front Matter</td>
<td>title page, prefatory material [optional]</td>
</tr>
<tr>
<td>&lt;archdesc&gt;</td>
<td>Archival Description</td>
<td>content, context, and extent of body of archival material</td>
</tr>
</tbody>
</table>

---

**FIGURE 1**

<table>
<thead>
<tr>
<th>Tags</th>
<th>element names</th>
<th>information content</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;ead&gt;</td>
<td>high-level wrapper elements</td>
<td></td>
</tr>
<tr>
<td>&lt;eadheader&gt;</td>
<td>EAD Header</td>
<td>creation and use of the finding aid itself</td>
</tr>
<tr>
<td>&lt;frontmatter&gt;</td>
<td>Front Matter</td>
<td>title page, prefatory material [optional]</td>
</tr>
<tr>
<td>&lt;archdesc&gt;</td>
<td>Archival Description</td>
<td>content, context, and extent of body of archival material</td>
</tr>
</tbody>
</table>

---

**FIGURE 2**

<table>
<thead>
<tr>
<th>Tags</th>
<th>element names</th>
<th>information content</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;eadid&gt;</td>
<td>EAD Identifier</td>
<td>unique identification code for the finding aid</td>
</tr>
<tr>
<td>&lt;filedesc&gt;</td>
<td>File Description</td>
<td>creation of finding aid (i.e., author, title, publisher)</td>
</tr>
<tr>
<td>&lt;profiledesc&gt;</td>
<td>Profile Description</td>
<td>encoding of finding aid (i.e., agent, date, language)</td>
</tr>
<tr>
<td>&lt;revisiondesc&gt;</td>
<td>Revision Description</td>
<td>changes to the encoded finding aid</td>
</tr>
</tbody>
</table>
### FIGURE 3

#### <archdesc> elements

<table>
<thead>
<tr>
<th>Tags</th>
<th>element names</th>
<th>information content</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;did&gt;</td>
<td>Descriptive Identification</td>
<td>core identifying elements, including origination and physical description and location</td>
</tr>
<tr>
<td>&lt;accessrestrict&gt;</td>
<td>Conditions Governing Access</td>
<td>availability of physical access to material</td>
</tr>
<tr>
<td>&lt;acrua&gt;</td>
<td>Accruals</td>
<td>anticipated additions to material</td>
</tr>
<tr>
<td>&lt;acqinfo&gt;</td>
<td>Acquisition Information</td>
<td>immediate source of material</td>
</tr>
<tr>
<td>&lt;altformavail&gt;</td>
<td>Alternative Form Available</td>
<td>copies of material in additional formats</td>
</tr>
<tr>
<td>&lt;appraisal&gt;</td>
<td>Appraisal Information</td>
<td>process of determining archival value of material</td>
</tr>
<tr>
<td>&lt;arrangement&gt;</td>
<td>Arrangement</td>
<td>internal structure and ordering of material</td>
</tr>
<tr>
<td>&lt;bibliography&gt;</td>
<td>Bibliography</td>
<td>citations to works related to material</td>
</tr>
<tr>
<td>&lt;bioghist&gt;</td>
<td>Biography or History</td>
<td>creator (individual, family, or corporate body) of materials, to provide context</td>
</tr>
<tr>
<td>&lt;controlaccess&gt;</td>
<td>Controlled Access Headings</td>
<td>personal, corporate, and geographic name headings, and subject headings</td>
</tr>
<tr>
<td>&lt;custodhist&gt;</td>
<td>Custodial History</td>
<td>chain of intellectual ownership and physical possession</td>
</tr>
<tr>
<td>&lt;descgrp&gt;</td>
<td>Description Group</td>
<td>[generic wrapper for grouping other elements]</td>
</tr>
<tr>
<td>&lt;fileplan&gt;</td>
<td>File Plan</td>
<td>classification scheme(s) used by material’s creator(s)</td>
</tr>
<tr>
<td>&lt;index&gt;</td>
<td>Index</td>
<td>list of key terms, subjects, entities—may include links</td>
</tr>
<tr>
<td>&lt;odd&gt;</td>
<td>Other Descriptive Data</td>
<td>[last resort for miscellaneous data not fitting other elements]</td>
</tr>
<tr>
<td>&lt;originalsloc&gt;</td>
<td>Location of Originals</td>
<td>existence, location, and availability of originals when materials described are copies</td>
</tr>
<tr>
<td>&lt;otherfindingaid&gt;</td>
<td>Other Finding Aid</td>
<td>alternative guides to the material</td>
</tr>
<tr>
<td>&lt;phystech&gt;</td>
<td>Physical Characteristics and Technical Requirements</td>
<td>physical or technical needs affecting storage, preservation, and use of material</td>
</tr>
<tr>
<td>&lt;prefercite&gt;</td>
<td>Preferred Citation</td>
<td>Wording for citing material</td>
</tr>
<tr>
<td>&lt;processinfo&gt;</td>
<td>Processing Information</td>
<td>preparation of material for research use</td>
</tr>
<tr>
<td>&lt;relatedmaterial&gt;</td>
<td>Related Material</td>
<td>material not included in collection that may be of interest</td>
</tr>
<tr>
<td>&lt;scopecontent&gt;</td>
<td>Scope and Content</td>
<td>range and topical coverage of material</td>
</tr>
<tr>
<td>&lt;separatedmaterial&gt;</td>
<td>Separated Material</td>
<td>material of common provenance that has been physically separated</td>
</tr>
<tr>
<td>&lt;userestrict&gt;</td>
<td>Conditions Governing Use</td>
<td>conditions affecting use of material after access has been granted</td>
</tr>
<tr>
<td>&lt;dsc&gt;</td>
<td>Description of Subordinate Components</td>
<td>[wrapper element containing hierarchical structure of material]</td>
</tr>
</tbody>
</table>
that the summary of important information contained in the Descriptive Identification `<did>` wrapper element appear as the first section in `<archdesc>`. The `<dsc>` element logically belongs at the end of the `<archdesc>` element sequence, as it contains all lower levels of the hierarchy. The order of all other top-level elements within `<archdesc>` is flexible, and determined by archivists locally—ideally with a focus upon prioritizing information most valuable to users. It is important to note that unless a given sequence is proscribed by the EAD DTD (such as the `<did>` in `<archref>` appearing before the `<dsc>`), the order in which the information in an encoded finding aid is displayed will be determined by local preferences, as embodied in stylesheets.

The Descriptive Identification `<did>` element is used in the `<archdesc>` to group together key information about the entire body of material being described. The `<did>` and its sub-elements can also be used within a Component `<c>` to describe a particular subset of material. The `<did>` that leads off the `<archdesc>` provides an important high-level orientation to users, and in finding aids the information coded in the `<did>` will usually be given a heading (in a `<head>` sub-element) like “Collection Overview” or “Descriptive Summary.” The `<did>` elements are shown in Figure 4.

Important information presented to users in the `<did>` includes: in `<origination>`, the name(s) of the “creator(s)” of the materials being described; in `<unittitle>`, `<unitid>`, and `<unitdate>`, the materials’ title,
unique identifier number, and dates of creation; in <repository>, the name of the institution responsible for intellectual access to the material and for the content of the finding aid; and in <physdesc>, the extent, dimensions and form of the materials. Archivists can also include in the <did> a brief summary of the materials in the <abstract> sub-element, to help users quickly assess the materials’ relevance to their research.

The description begun with the brief high-level summary in the <did> is typically followed by other high-level <archdesc> elements presenting a more detailed picture about the contents and context of the archival materials in question. These elements can be provided with headings according to local preferences using <head>, and the information itself is presented in prose form within Paragraph <p> elements, which can in turn contain many linking, formatting, and controlled access elements. Most useful for providing context information about the creator(s) of the materials is the Biography or History <bioghist> element, which contains a concise essay about the life of an individual or family or about the history of a corporate body. (The new Encoded Archival Context metadata scheme will allow archivists to share such information across multiple finding aids, as discussed below.) Equally important for users is the Scope and Content <scopecontent> statement, a prose overview of the topical content of the materials often highlighting the significant individuals and organizations represented therein. The <arrangement> element can be used either inside <scopecontent> or as a distinct parallel section of its own for a description of the internal structure of the materials.

To provide maximum access to the materials through authority-controlled searching, the Controlled Access Headings <controlaccess> wrapper element allows the use of terms analogous to those used in MARC 1XX, 6XX, and 7XX fields. Sub-elements within <controlaccess> include <persname>, <corpname>, <genreform>, <geogname>, <subject>, and <title>, which can be used along with [source] attributes specifying the controlled vocabulary being used, i.e., “naf” or “lcsh.”

Several of the remaining high-level <archdesc> elements (namely <accessrestrict>, <accruals>, <acqinfo>, <altformavail>, <appraisal>, <custodhist>, <prefercite>, <processinfo>, and <userestrict>) focus on the administrative background, processing history, and use policies of the described archival materials. In EAD Version 1.0 these elements were originally clustered together under the now officially “deprecated” element Administrative Information <admininfo>. Since these elements may appear at multiple hierarchical levels within a finding aid, they were “unbundled” in EAD Version 2002 to reduce tagging over-
head at the Component level. However, to allow archivists to continue
to group these and/or other related elements in finding aids as neces-
sary, EAD Version 2002 includes a new generic wrapper element called
Description Group <descgrp>. Through the use of a <head> element in-
side <descgrp>, many finding aids still contain a section labeled “Ad-
ministrative Information,” or something similar.

The final key element in <archdesc> is the Description of Subordi-
nate Components <dsc>, where information is encoded that pertains
only to specific parts of the body of materials being described. The
<dsc> has a required [type] attribute that identifies the form of presenta-
tion of the subordinate components. The most commonly used [type]
value is “combined,” indicating that the component description will be
followed directly by an itemization of the contents of the component. If
the archivist prefers to provide an overview of all the component series
and subseries first, then the [type] value to use would be “analyticover,”
followed by a second <dsc> listing the contents in which the [type]
value would be “in-depth.” This latter method requires some compo-
nent information to be encoded twice (once in each of the <dsc> ele-
ments) and is therefore less elegant. Moreover, a similar overview of
component series can be provided in an <arrangement> element (either
within or parallel to <scopecontent>) before opening the <dsc>. In the
sample finding aid represented in Appendix 1 and 2, a brief series over-
view is provided in <arrangement>, and the <dsc> [type] value used is
“combined.”

In the <dsc> each subordinate part is designated with a Component
wrapper element that must contain a <did>. It is recommended that
each <c> component be given a [level] attribute (i.e., “series,” “sub-
series,” “file,” etc.). Since components often appear within other com-
ponents, it is helpful to use numbered components to clarify the
hierarchical relationship between the components. For example, a <c01
level="series"> might contain one or more <c02 level="subseries">
component(s), which in turn contain one or more <c03 level="file">
component(s), and so on. This recursive structure of smaller and smaller
components could reach the level of a single item. All the <archdesc>
elements available to describe the entire body of materials can also be
used within <dsc> to provide information about the content, context,
and extent of a specific component of the materials. But as all the infor-
mation provided about the collection as a whole is inherited by each
subordinate component, a component will typically contain only new
information, such as in component-specific <scopecontent> notes or el-
ements like <container> or <unittitle>. The <container> element can in-
clude a [type] attribute to specify whether the component represents a
“box,” “folder,” or other kind of container. The <table> element and its
sub-elements can be used to display container lists or other information
in tabular form.

To provide finding aids with the full access and navigation benefits
of hypermedia and hypertext, EAD features several linking elements.
Internal links within the finding aid can be made using Reference <ref>
(which can contain text to describe the referenced object) and Pointer
<ptr> (which cannot contain descriptive text). Links to separately de-
scribed archival materials are possible using Archival Reference
<archref>, as are links to published works through Bibliographic Refer-
ence <bibref>, and links to external electronic objects with External
Reference <extref>. The Digital Archival Object <dao> element allows
finding aids to include links to electronic representations of the materi-
als being described. Other elements are available to create multidirec-
tional links and to create groups of links. Although the details of the
practical interaction of EAD and EAC information in software applica-
tions is still under development, the existence of this robust set of link-
ing elements in EAD will no doubt facilitate the sharing of archival
context information promised by EAC.

EAC BACKGROUND

Provenance is the central principle of archival control. Archival ma-
terials are the records generated by the everyday activities of individu-
als, families, and corporate bodies. Therefore, contextual information
about the lives, activities, and functions of these creators—and of the re-
relationships existing between creators, functions, and records—is essen-
tial for the understanding and use of the materials. ISAD(G) and EAD’s
<bioghist> element allow archivists to supply such contextual informa-
tion about the creators of archival materials within finding aids, i.e., de-
scriptions of individual archival entities. But there are compelling
reasons to separate and formalize the collection and maintenance of this
type of information, which Daniel Pitti neatly terms “creator descrip-
tion.” In a recent article, Pitti (2004) makes a strong argument for the
potential value of separately maintained creator description via EAC;
the following four paragraphs summarize this argument.

The first obvious reason is authority control, the need to establish
preferred name headings for the individuals, families, and corporate
bodies responsible for creating archival materials in order to help collo-
cate dispersed materials sharing the same creator(s), enhancing access. The *International Standard Archival Authority Record for Corporate Bodies, Persons, and Families* (*ISAAR (CPF)*) (International Council 1996) was developed to provide an archival authority control standard to supplement *ISAD(G)*; *Encoded Archival Context (EAC)* is intended to complement EAD in the same way. The benefits of separately captured and maintained standardized creator descriptions encompass much more than just authority control, however.

Creator description entails expensive and time-consuming biographical and/or historical research, which is now routinely duplicated when materials sharing the same provenance are dispersed. If several different archival repositories happen to contain archival materials created by William Faulkner, for example, then at present each of these repositories must research and prepare creator descriptions for Faulkner. If a single creator description was created in a shared authority file, following an established standard, and collaboratively modified as appropriate, it could be shared to the economic benefit of all these repositories as well as any repository that acquires Faulkner materials in the future.

Moreover, the contextual importance of creator description extends beyond the relationships between creators (individuals, families, corporate bodies) and the archival records they have created. Also significant are the relationships between different creators, and between creators and the functions and activities that are recorded. Through the emergence of the Internet and of hypermedia tools, this web of relationships can be expressed more fully than ever before—and much more efficiently (and economically) if creator description information is captured and maintained separately from the description of the archival records in finding aids.

A last main point Pitti makes is that archival collections constitute the core of primary sources that inform biographical and historical research, so archivists are uniquely well placed (and bear a professional responsibility) to establish authoritative creator descriptions that trace the complex web of relationships between creators, activities, and records. The result of this applied expertise by archivists would be the establishment of a collaborative international biographical and historical resource of unprecedented scope. This new resource could import existing information, such as the contents of the Library of Congress’s vast National Authority File (NAF), while adding much greater depth of creator description via newly created EAC records.

The work to develop the new encoding standard that would come to be known as *Encoded Archival Context* began in earnest when an inter-
national group of archivists and information scientists met for that purpose at the University of Toronto in 2001. From this meeting came a document called the “Toronto Tenets: Principles and Criteria for a Model for Archival Context Information” (Toronto Archival Context 2001). A working group was formed, and at a subsequent meeting in the same year at the University of Virginia, the first draft of the new XML DTD for Encoded Archival Context was put together. Now the Encoded Archival Context Tag Library (Beta August 2004 Working Draft) has been made available on the EAC web site hosted by the Institute for Advanced Studies at the University of Virginia. This draft is still in revision and therefore not authoritative, but it is sufficiently far along to allow an overview of the structure of EAC.

EAC STRUCTURE

EAC documents feature a nesting structure similar to that of EAD. The outermost element is Encoded Archival Context <eac>, identifying the document as an archival authority record. The <eac> element must be accompanied by a [type] attribute indicating whether the subject of the authority record is a corporate body (“corpname”), person (“persname”), or family (“famname”). For example, an EAC record for a person would begin:

    <eac type="persname">

There are two main sections in <eac>: the EAC Header <eacheader>, containing information about the creation, maintenance, and control of the authority record itself; and the Context Description <condesc>, containing the actual creator description information (see Figure 5).

The <eacheader> has a required [status] attribute designating whether the description is a “draft,” “edited” (i.e., approved), or “deleted.” Within <eacheader> are two required sub-elements and four optional sub-elements. The required sub-elements are: the EAC Identifier <eacid>, which provides a unique identifier number or code for the EAC record; and the Maintenance History <mainhist>, which contains the name, date, and description of any actions/updates involving the record. The optional sub-elements are Language Declaration <langdecl>, Rules Declaration <ruledecl>, Source Declaration <sourcedecl>, and Authority Declaration <authdecl> (see Figure 6).

The <condesc> is a wrapper element containing groups of elements that comprise the creator description, including the entity’s name, biog-
raphy/history, and significant relations to other entities, resources, or functions. The one required sub-element within <condesc> is Identity <identity>, which is used to establish authorized and alternative name forms for the entity. The attribute [authorized] is used within <identity> to designate a particular name heading as the privileged form for indexing or display purposes. Other attributes are available for complex cases where different name forms are authorized in different languages or situations. The optional Description <desc> element can contain biographical or historical context information about the entity in prose and/or list form (see Figure 7).

Three optional elements are available in <condesc> for documenting relationships involving the entity being described, EAC Relations <eacrels> is an element grouping references to descriptions of individuals, families, or corporate bodies related to the entity. The [reltype] attribute in <eacrels> can specify certain hierarchical, temporal, familial, and other types of relationships between entities, using a closed list of values (superior, subordinate, earlier, later, associative, parent, child, identity, other).
Resource Relations <resourcerels> contains references to other related records or resources. The nature of the resource is first identified with one of the following three sub-elements: Archival Unit <archunit>; Bibliographic Description <bibunit>; or, Museum Description <musunit>. The [reltype] attribute can then be used with a closed list of values (origin, destruction, control, causa, subject, other) to identify the type of relation. Lastly, for references to descriptions of related functions or activities, there is the Function or Activity Relations <funactrels> element. The designers of EAC have deferred the detailed typing of functions and activities until more standardization has been accomplished in their description.

Appendix 3 is a sample EAC record for user display (modeled on the examples available on the official EAC Working group Web site hosted by the University of Virginia’s Institute of Advanced Studies in the Humanities (IATH)) (Encoded Archival Context 2004). Appendix 4 shows the same record in encoded form. Note that the section headings present in the display version are not represented in the encoded version; they would likely be generated by a stylesheet.

### EAD/EAC IMPLEMENTATION

Archivists and institutions interested in providing online access to their archival holdings and considering EAD implementation usually face the challenge of deciding how to convert their existing finding aids into XML. These legacy finding aids can exist in many different forms, including paper only, word processing files, spreadsheets, HTML files,
or SGML files that predate the development of EAD and XML. Numerous programs have been written to help migrate information in practically any of these formats into EAD, some from commercial services and others freely available on the Web sites of the institutions responsible for them. The use of institutional or consortial templates and stylesheets and the availability of commercial and free XML-editing software has greatly streamlined the process of migrating finding aids into EAD or creating new finding aids directly in EAD.

However, choosing large-scale outsourcing or mechanical conversion methods in order to expedite the effort or lower costs can defer issues about the adequacy of the archival descriptions contained in the older finding aids for meeting users’ needs. The evaluation of legacy finding aids in preparation for conversion into EAD often beneficially forces archivists to reassess the usefulness of their existing finding aid designs, a process Dennis Meissner (1997) called “reengineering.” Putting poorly organized legacy archival descriptions online hastily in order to increase access in the short term may prove a costly missed opportunity. Thoughtfully applied EAD can greatly magnify the accessibility and usefulness of a repository’s older finding aids. With respect to the ongoing creation of new finding aids, EAD has already sparked a movement toward standardization of archival descriptive practices that should greatly benefit users.

EAD has attracted a great deal of attention from archivists in the United States and around the world, and implementation of EAD is increasingly widespread. The “EAD Help Pages” Web site maintained by the EAD Round Table (2004) of the Society of American Archivists features a list of “EAD Sites Annotated,” which includes over sixty individual institutions (mainly university libraries, historical archives, and a few museums) from the U.S., U.K., Australia, Portugal, and the Netherlands, as well as nineteen “cooperative projects.” Notable among these latter consortial approaches to EAD implementation are the American Heritage Virtual Archive Project (2000) (a collaboration between UC Berkeley, Stanford, Duke, and Virginia), the Online Archive of California (OAC) (California Digital Library 2004), and the MALVINE (Manuscripts and Letters Via Integrated Networks in Europe 2003) Project.

The development of EAC is not yet complete, and it has so far been implemented only experimentally. The first prominent test implementation of EAC shows great promise for its potential future uses in combination with EAD and other standards. The University College London’s LEADERS (Linking EAD to Electronically Retrievable Proj-
Project is attempting to develop “an online environment which integrates EAD encoded finding aids and EAC authority records with TEI encoded transcripts and digitised images of archival material.” (TEI, the Text Encoding Initiative, is an XML DTD designed to enable the encoding of electronic texts.) The LEADERS “demonstrator application” presents a split-screen display that can simultaneously display or toggle between a digitized image of an archival resource, such as a handwritten letter, a searchable transcript of the letter (TEI), and columns describing the context of the letter (EAD) and of its creator (EAC). In a relatively short time, the development of EAD and now EAC has driven the evolution of archival control from paper finding aids (accessible only in person or through the mail) to the extraordinary “environment” of easy access, complex information retrieval, and rich presentation of archival context represented by the LEADERS project.

WORKS CITED


Descriptive Summary

Size: 11 linear ft. (25 boxes)
Coll. No.: MS-F24
Repository: Bluegrass State University. Rodgers Library. University Archives.
Abstract: The Basham Kelly papers, 1936-1988, include manuscripts of Kelly’s books and articles, personal correspondence with many noted Kentucky writers and musicians, official correspondence from his tenure as chair of the Dept. of English at Bluegrass State University (1949-1984), course material, lecture notes, photographs, audiotapes and videotapes.

Administrative Information

Provenance
The Basham Kelly papers were donated by Mary Lilly Kelly to the University Archives, Bluegrass State University, in 1991.

Access
The collection is open for research use, with the exception of the correspondence files in Series 1, Box 10, which are restricted until 2030.

Publication Rights
For permission to publish, contact the Curator of the University Archives.

Preferred Citation
[Item, folder title, box number], Basham Kelly papers, University Archives, Rodgers Library, Bluegrass State University.

Processing Information
The collection was processed at the University Archives in 1992 by Judith Morgan. The finding aid was prepared by Diana Elizabeth in 1992.

Biographical Note
Dr. Basham Kelly, who served as the Chair of the Department of English at Bluegrass State University from 1949 until his retirement in 1984, was born in Bullitt County, Kentucky, in 1914. He married Mary Lilly, of Georgetown, Kentucky, in 1938. He received his B.A. from Western Kentucky University, his M.A. from the University of Kentucky, and Ph.D. from the University of Iowa. Before joining the faculty of Bluegrass State University, he taught at Stephen F. Austin College and Oklahoma City University.

An influential literary scholar and folklorist, Dr. Kelly was a central figure in Kentucky literary and arts circles for decades, cultivating long-lasting correspondences with numerous novelists, poets, and musicians, including prominent Kentuckians such as Robert Penn Warren, Jesse Stuart, Harriette Arnow, Hollis Summers, Bradley Kincaid, and Bill Monroe.

Dr. Kelly authored four books: Melville’s Politics (1947); Shakespeare in Nineteenth-Century America (1960); Fugitive Traces: Robert Penn Warren and Contemporary Fiction (1966); and Mountain Music: A Guide to Kentucky Folk Arts (1980). He edited Tall Tales of Madison County (1983), and was a frequent contributor to the Register of the Kentucky Historical Society.
Collection Scope and Content

The Basham Kelly Papers range in date from 1936 to 1968, with the bulk of the material dating from Kelly’s tenure as Chair of the Dept. of English at Bluegrass State University (1949-1984). The collection includes: personal correspondence with family, friends, and many notable Kentucky writers and musicians; official English Dept. correspondence; course material, lecture notes, and conference papers; typescript drafts and published editions of all of Kelly’s books and articles; six audiotapes and four videotapes of radio and television interviews, lectures and commencement addresses; and 27 photographs of Kelly and his friends and acquaintances.

The collection is a valuable primary source for research on Kentucky’s literary and folk music scenes, as it includes lively correspondence from the writers Robert Penn Warren, Jesse Stuart, Harriette Arnow, and Hollis Summers, and the musicians Bradley Kincaid (the “Kentucky Mountain Boy”), and Bill Monroe, the bluegrass pioneer.

The collection is arranged in four series: Personal Correspondence (10 boxes); Official Correspondence, Course Material, Lectures (9 boxes); Manuscripts of Publications (4 boxes); and Photographs, Audiotapes, and Videotapes (2 boxes).

Index Terms

This collection is indexed under the following headings in the online catalog of the Rodgers Library.

Warren, Robert Penn, 1905-
Arnow, Harriette Louisa Simpson, 1908-
Summers, Hollis Spurgeon, 1916-
Kincaid, Bradley.
Monroe, Bill, 1911-
Bluegrass State University–Faculty.
Bluegrass State University–Dept. of English and American Literature.
American literature–Kentucky–History and criticism.
Folk literature, American–Kentucky.
Folk music–Kentucky.
Folklorists–Kentucky.

Description of Series/Container List

Series 1–Personal Correspondence, 1936-1988
4 linear ft. (10 boxes)

Consists of autograph and typed letters written to Kelly, along with some copies of letters by Kelly. Includes substantial correspondence from Robert Penn Warren, Jesse Stuart, Harriette Arnow, Hollis Summers, Bradley Kincaid, Bill Monroe, and others.

Arranged alphabetically by correspondent. Letters by Kelly are filed with letters from correspondents under correspondents’ names.

Access to the correspondence files in Series 1, Box 10, is restricted until 2030.

Box 1 A-D
Box 2 E-G
[Boxes 3-10 omitted from sample]
APPENDIX 1 (continued)

Series 2–Official Correspondence, Course Material, Lectures, 1949-1984

Subseries 1–Official Correspondence
2 linear ft. (5 boxes)
Consists of official correspondence written by and to Kelly in his role as Chair of the English Dept. at Bluegrass State University.
Arranged alphabetically by correspondent or topic.

Box 11 A-G
Box 12 H-J
[Boxes 13-15 omitted from sample]

Subseries 2–Course Material, Lectures
1.5 linear ft. (4 boxes)
Syllabi, assignments, handouts, and lecture notes from Kelly’s courses on literature and folklore at Bluegrass State University.
Arranged chronologically.
[Remaining series/container list omitted from finding aid sample]

APPENDIX 2. Sample Encoded EAD Record

<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE ead PUBLIC "+//ISBN 1-931666-00-8//DTD ead.dtd (Encoded Archival Description (EAD) Version 2002)\EN" "../shared/ead/ead.dtd">
<ead>
<eadheader audience="internal" countryencoding="iso3166-1" dateencoding="iso8601" langencoding="iso639-2b" repositoryencoding="iso15511">
<eadid countrycode="us" mainagencycode="xx-x" publicid="-//us::xx-x//TEXT us::xx-x::f24.sgm//EN">Basham Kelly papers</eadid>
<filedesc>
<titlestmt>
<titleproper>Guide to the Basham Kelly papers, 1936-1988</titleproper>
<author>Collection processed by Judith Morgan, finding aid prepared by Diana Elizabeth</author>
</titlestmt>
<publishstmt>
<publisher>University Archives, Rodgers Library, Bluegrass State University</publisher>
<date>1992</date>
</publishstmt>
</filedesc>
<profiledesc>
<creation>Finding aid encoded by Richard Cooper, 2004</creation>
<language>Finding aid is written in
Guide to the Basham Kelly Papers.

Processed by: Judith Morgan
Finding aid prepared by: Diana Elizabeth
Encoded by: Richard Cooper

Descriptive Summary

Creator: Basham Kelly, 1914-1990
Title: Basham Kelly papers, 1936-1988
Size: 11 linear ft. (25 boxes)

Abstract: The Basham Kelly papers, 1936-1988, include manuscripts of Kelly's books and articles, personal correspondence with many noted Kentucky writers and musicians, official correspondence from his tenure as chair of the Dept. of English at Bluegrass State University (1949-1984), course material, lecture notes, photographs, and audiotapes and videotapes.

Provenance:
The Basham Kelly papers were donated by Mary Lilly Kelly to the University Archives, Bluegrass State University, in 1991.
APPENDIX 2 (continued)

The collection is open for research use, with the exception of the correspondence files in Series 1, Box 7, which are restricted until 2030.

For permission to publish, contact the Curator of the University Archives.

The collection was processed at the University Archives in 1992 by Judith Morgan. The finding aid was prepared by Diana Elizabeth in 1992.

Dr. Basham Kelly, who served as the Chair of the Department of English at Bluegrass State University from 1949 until his retirement in 1984, was born in Bullitt County, Kentucky in 1914. He married Mary Lilly, of Georgetown, Kentucky, in 1938. He received his B.A. from Western Kentucky University, his M.A. from the University of Kentucky, and Ph.D. from the University of Iowa. Before joining the faculty of Bluegrass State University, he taught at Stephen F. Austin College and Oklahoma City University.

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Dr. Kelly authored four books: *Melville's Politics* (1947); *Shakespeare in Nineteenth-Century America* (1960); *Fugitive Traces: Robert Penn Warren and Contemporary Fiction* (1966); and *Mountain Music: A Guide to Kentucky Folk Arts* (1980). He edited *Tall Tales of Madison County* (1983), and was a frequent contributor to the *Register of the Kentucky Historical Society*.

The Basham Kelly Papers range in date from 1936 to 1968, with the bulk of the material dating from Kelly’s tenure as Chair of the Dept. of English at Bluegrass State University (1949-1984). The collection includes: personal correspondence with family, friends, and many notable Kentucky writers and musicians (10 boxes); official English Dept. correspondence (6 boxes); course material, lecture notes, and conference papers (3 boxes); typescript drafts and published editions of all of Kelly’s books and articles (4 boxes); six audiotapes and four videotapes of radio and television interviews, lectures and commencement addresses (1 box); and 27 photographs of Kelly and his friends and acquaintances (1 box).
The collection is a valuable primary source for research on Kentucky’s literary and folk music scenes, as it contains interesting correspondence from writers such as Robert Penn Warren, Jesse Stuart, Harriette Arnow, and Hollis Summers, and musicians including Bradley Kincaid (the “Kentucky Mountain Boy”), and Bill Monroe, the bluegrass pioneer.

The collection is arranged in four series: Personal Correspondence; Official Correspondence, Course Material, Lectures; Manuscripts of Publications; and Photographs, Audiotapes, and Videotapes.

This collection is indexed under the following headings in the online catalog of the Rodgers Library:

- Warren, Robert Penn, 1905-.
- Arnow, Harriette Louisa Simpson, 1908-.
- Summers, Hollis Spurgeon, 1916-.
- Kincaid, Bradley.
- Monroe, Bill, 1911-.
- Bluegrass State University–Faculty.
- Bluegrass State University–Dept. of English and American Literature.
- American literature–Kentucky–History and criticism.
- Folk literature, American–Kentucky.
- Folk music – Kentucky.
- Folklorists – Kentucky.

Consists of autograph and typed letters written to Kelly, along with some copies of letters by Kelly. Includes substantial correspondence from Robert Penn Warren, Jesse Stuart, Harriette Arnow, Hollis Summers, Bradley Kincaid, Bill Monroe, and others.

Arranged alphabetically by correspondent. Letters by Kelly are filed with letters from correspondents under correspondents’ names.
Access to the correspondence files in Series 1, Box 10, is restricted until 2030.

Series 2

Official Correspondence, Course Material, Lectures, 1949-1984

Subseries 1

Official Correspondence

Consists of official correspondence written by and to Kelly in his role as Chair of the English Dept. at Bluegrass State University.

Arranged alphabetically by correspondent or topic.

Subseries 2

Course Material, Lectures

2 linear ft. (5 boxes)

1.5 linear ft. (4 boxes)
Part II: How to Create, Apply, and Use Metadata

APPENDIX 3. Sample EAC Record

Entity Description

Identity

Used

Bluegrass State University [1 September 1919- ]

Not used

BSU [1 September 1919- ]

Description

The school that later became Bluegrass State University was founded by John Jefferson Rodgers in 1883 as the Danmont Agricultural Institute. By 1919 the curriculum had expanded beyond technical instruction to include arts and sciences, and the name was changed to Bluegrass State University.

Related Entities

Previously known as

Danmont Agricultural Institute [1883-1919]

Founder

Rodgers, John Jefferson, 1829-1911
Related Resources

Bibliographic Source

Record Control Information

*Record type:* corporate name
*Editorial status:* draft
*Language encoding standard:* iso639-2b
*Script encoding standard:* iso15924
*Date encoding standard:* iso8601
*Country encoding standard:* iso3166-1
*Owner encoding standard:* iso15511
*Record identifier:* US:: BSUKY::Bluegrass State University::A1

*Maintenance history:*
*Event:* Record created
*Date:* 22 April 2003
*Name:* Richard Cooper

*Event:* Record updated
*Date:* May 12, 2003
*Name:* Richard Cooper

*Language/Script of description:* English in Latin Script
APPENDIX 4. Sample Encoded EAC Record

<eac type="corpname">
  <eacheader status="draft" langencoding="iso639-2b"
    scriptencoding="iso15924" dateencoding="iso8601"
    countryencoding="iso3166-1" ownerencoding="iso15511">
    <eacid countrycode="US"
      ownercode="BSUKY">US::BSUKY::Bluegrass State University::A1</eacid>
  </eacheader>
  <mainhist>
    <mainevent maintype="create">
      <name>Richard Cooper</name>
      <maindate calendar="gregorian" normal="20030422">22 April 2003</maindate>
    </mainevent>
    <mainevent maintype="update">
      <name>Richard Cooper</name>
      <maindate calendar="gregorian" normal="20030512">12 May 2003</maindate>
    </mainevent>
  </mainhist>
  <languagedecl>
    <language languagecode="eng" scriptcode="latn">English in Latin script</language>
  </languagedecl>
  <sourcedecl>
    <source id="s1">http://www.bsuky.edu/</source>
  </sourcedecl>
  <condesc>
    <identity>
      <corphead authorized="BSUKY">
        <part>Bluegrass State University. </part>
        <usedate scope="begin-end" form="openspan" era="ce" calendar="gregorian" normal="19190901/" start="1 September 1919"/>
      </corphead>
    </identity>
    <desc>
      <bioghist>
        The school that later became Bluegrass State University was founded by John Jefferson Rodgers in 1883 as the Danmont Agricultural Institute. By 1919 the curriculum had expanded beyond technical instruction to include arts and sciences, and the name was changed to Bluegrass State University.
      </bioghist>
    </desc>
  </condesc>
</eac>
APPENDIX 4 (continued)

<bibunit>
    <name type="author">Bluegrass State University.</name>
    <title render="italic">Bluegrass State University, 1883-1983: A Centennial Celebration.</title>
    <imprint><publisher>Bluegrass State University Press, </publisher><date era="ce" calendar="gregorian">1983.</date></imprint>
</bibunit>