Summary

The charges to the Task Force on the VRA Core and a summary of actions:

1. Evaluating the relationship between library metadata (AACR2, USMARC) and the Visual Resources Association/Data Standards Committee Core Categories for describing visual resources collections to determine how well the VRA Core Categories map into AACR2 and MARC.

   TF Action: The VRA Data Standards Committee has mapped the Core Categories to MARC as well as to other metadata standards. A section of this report further reviews the mapping to MARC and AACR, category by category.

2. Identifying the issues surrounding the use of VRA metadata in AACR2 cataloging records. The Task Force shall refer to the four user tasks set forth in the IFLA Functional Requirements for Bibliographic Records and the Computer File Core Record Requirements established by PCC in evaluating the VRA metadata standard.

   TF Action: A section of the report analyzes the “user tasks” identified in FRBR as they relate to the VRA Core Categories. The Task Force report does not include comparisons to the PCC Core Record Requirements for Computer Files, or to the PCC Core Record Requirements for Graphic Materials. [The latter comparison was suggested as an addition to the charge in June, 1999.]

3. Assessing the consequences and impact of integrating records containing the VRA core categories into library databases, evaluating mechanisms for integration and recommending appropriate measures for libraries.
TF Action: We focus on general issues of record compatibility rather than record integration. Sections of the report address theoretical issues involving library data structures and the VRA Core Categories.

4. Preparing rule revision proposals and discussion papers as needed.

   TF Action: None. The TF feels that the VRA Core is chiefly a data structure standard. Recommendations for changes to library standards would most likely be directed to the MARC Advisory Committee.

5. Monitoring of projects and activities that use VRA.

   TF Action: None. According to one TF member, the VRA Core is used by a number of libraries but mostly as inspiration. We are aware of the IRIS project in New England (using Core 2.0) and the Harvard VIA project (data structure mapped to Core 2.0). There had been some early discussion of providing a VRA Core view in CORC, but that did not happen.

6. Informing others of library perspectives through a designated liaison to VRA and informing CC:DA about the development of VRA.

   TF Action: As a member of the TF and the VRA Data Standards Committee liaison to the the MARC Advisory Committee, Sherman Clarke is a de facto liaison between CC:DA and VRA Data Standards Committee (DSC). At his request, this report will be sent to DSC members prior to the VRA Conference scheduled for the end of February, 2001. The TF has no plans to request that a designated liaison be appointed. The overlap between metadata communities is sufficient to ensure meaningful exchange of information.

The Task Force shall prepare a summary of the VRA metadata standard which shall include the following information:

- some background on history and community served
- description of metadata element set
- sample records if possible
- citations for more information, implementation projects, etc. Include Web sites.

   TF Action: Appendixes to this report provide some background, Core category descriptions, sample records and a brief bibliography.
Introduction

In the United States, the oldest, richest and most enduring metadata standards are those used in the creation of catalog records located in library catalogs. These are AACR and MARC and are best suited for the description of books or other physical resources traditionally housed in library collections. The advent of networks and the Internet gives rise to enormous potential for record sharing that goes well beyond libraries and catalogers, and well beyond descriptions of traditional library resources. With that potential comes the hope that in a single view, a researcher can find relevant materials through the use of databases of resource descriptions that include more than library catalogs.

For the last several years, librarians have pondered how to achieve a virtual union catalog for records from disparate databases that are based on widely differing standards for element definition and content. In addition to AACR/MARC the resource description records could be based on Dublin Core, TEI headers, CIDOC information categories or the Core Categories for Visual Resources (VRA), among others. The library community, especially catalogers, also saw the desirability of sharing content, of using supplied metadata from other sources and vice versa. The ideal would be to create metadata records that could be used and re-used, rather than creating and maintaining multiple parallel records for a single resource or to represent different functions involving that resource.

To generate a unified view that would result in meaningful discovery and retrieval and to support record sharing, semantic and content “interoperability” is needed. This can be achieved in one of two ways: transporting records to a single, shared database; or, using a single search interface to multiple databases. Either will require mapping or crosswalks that identify fields/tags/labels in each metadata set that correspond closely (if not perfectly) to each other. This semantic mapping is the first essential step in achieving interoperability. A second essential step is to agree on rules governing content, or to agree on mechanisms for resolution. Such rules would apply to the use of controlled vocabularies, name and subject, and to formulation of information that falls outside controlled vocabularies.

Early on, CC:DA began a study of newly emerging metadata standards with the intent of determining the potential for integrating records based on non-library metadata standards with library databases. More recently, CC:DA has shifted its focus of study from the centrality of the library catalog as a tool for resource discovery to the recognition that the library catalog will be one among many tools. From the beginning these studies have occasionally been handicapped by a lack of common terminology and understanding of the various types and uses of metadata. We sometimes found ourselves trying to compare apples to oranges. To avoid confusion and to forge a common understanding for the remainder of this report, the following metadata terms and their descriptions are offered:
data content: governed by standards that provide rules for populating tagged or labeled fields (set of statements that collectively describe a resource). These standards include AACR, ISBD®, DCRB (Descriptive Cataloging of Rare Books), AMIM (Archival Moving Image Materials), and to a slight extent, MARC21.

data structure: governed by standards that include a defined set of element labels or tag/field names and application rules (semantics; data dictionaries). These include Dublin Core, CDWA (Categories for the Description of Works of Art); VRA Core; and to some extent, MARC21.

data communication: governed by standards that provide rules for encoding records for transfer from different sources (syntax). These include MARC21, UNIMARC, SGML, XML.

This report continues the CC:DA study of metadata standards by looking at the VRA Core Categories (VRA) and assessing the potential for interoperability with library databases. It is important to keep in mind that the VRA Core is a data structure standard. Control of the data content or values for each element is based on recommendation and suggestion rather than rule. In principle, any comparison of the VRA Core can only be to other, comparable standards such as the Dublin Core, MARC (in part), or the CIDOC Information Categories. In fact, recommended practice for data values is worded strongly enough in the VRA Core to suggest that some assessment of these is possible for compatibility with other data content standards. Sections of this report will consider both by looking at the VRA Core in terms of its success in meeting requirements described in the Functional Requirements for Bibliographic Records (FRBR), evaluating the relationship to library metadata standards (AACR and MARC) and comparison to another metadata data structure standard (Dublin Core Metadata Element Set).
VRA Core categories compared to AACR and to MARC
Sherman Clarke

General Comments
The greatest difference between the average visual resources description and a description based on AACR is probably that the source of the description is something other than the item itself which is a basic tenet of AACR. This is not to be contrary but merely that most works of art do not include the title, creator, imprint, and series information usually found in library materials. Furthermore, the tradition of art historical scholarship is to leave the determination of such information to the repository responsible for a work of art or to art historians. Many images of art works are received with some description from the vendor or other source and that may be the only information available on which to base the cataloging or metadata.

MARC for bibliographic items has been expanded over its 25 years to cover all sorts of library materials. Visual resources are currently being added to library catalogs in the United States and elsewhere. OCLC's MARC-based CORC project has added a mapping for the VRA Core categories. There is no reason to suspect that MARC will not continue to be enhanced to cover more aspects of a visual resources record. Another art-specific data standard, the Getty's Categories for the description of works of art, includes a mapping to MARC. The ArtMARC sourcebook includes a chapter on MARC mapping. This chapter has tables of MARC fields used by various MARC-based projects as well as tables from VRA Core category to MARC and from MARC field to VRA Core (based on version 2.0).

The VRA Core recommends various vocabularies such as AAT, LCSH or NAF for use in a compliant record. The MARC authority format can accommodate these vocabularies. The text below includes comments on the VRA Core 3.0, category by category, relative to AACR and to MARC.

RECORD TYPE
This category is used to indicate if a record is for a work of art or for an image of a work. It is related to library-world discussions of work, expression, emanation, and manifestation but is simpler here. There are intermediate levels which might be covered by the category RELATION.

An image could be coded in Form of Item (VM 008/29). Value s is used for electronic reproductions. A code could be added for photographic reproductions (slides). A work would be blank in 008/29.

TYPE
This category is used to record the genre of an item and is outside the scope of AACR. In MARC, this could be coded in the 655 field.
TITLE
AACR includes much discussion of titles. Title information for works of art is not usually based on text which can be transcribed. Rather, the title is more likely based either on the artist's title or on art historical research including titles which appear in catalogs from museums or image vendors. Nonetheless, there are the predictable variations such as translated title, familiar title, or title as part of a larger work. The title is often descriptive of the subject matter, e.g. Madonna and Child, River landscape.

The VRA Core does not discuss the construction of author/title headings, uniform titles, or other headings that might combine information from two categories. For example, a generic or descriptive title might need to be combined with a CREATOR and qualified by date, repository, or other information in order to be meaningfully identified. Having a unique identification for a work expedites establishing relationships between works; this has an effect on the RELATION category.

Titles may easily be recorded in 24X and 7XX fields.

MEASUREMENTS
Measurements will often be recorded in more detail than in an AACR description, but will not be beyond the scope of a third-level description.

This data would be coded in 300 (mostly $c) or in other 3XX fields such as 340.

MATERIAL
This category is related to TYPE but is the physical attributes rather than the genre. It is also somewhat out of the scope of AACR.

In MARC, the distinction between genre (recorded in 655) and physical characteristics (recorded in the obsolete 755) has been eliminated. The data may overlap and cataloger distinction is difficult. Data in both categories MATERIAL and TYPE could be recorded in 655 for access. Some terms would (also) be recorded in 3XX as part of a description. The distinction between description and access is less clear for VR materials than for books.

TECHNIQUE
As with MATERIAL and TYPE, this category is outside the scope of AACR.

Technique could be recorded in 65X.

CREATOR
While many works of art were created by known creators, millions of art works cannot be ascribed to persons or corporate entities. This category does not distinguish between principal and secondary creators, as AACR does. Some creators are known by appellations or other identifiers like "Housebook Master" or "School of Rembrandt." AACR 22.11 includes provisions for entering under phrase.

A recent proposal would allow coding of identifiers ($j) related to known persons in a subfield that would allow authority control of the known person's name. For example, the "school of" data would be coded as a qualifier of the heading for Rembrandt.
A heading established according to AACR could easily be carried in this category though the VRA Core 3.0 does not break the category into the subcategories that might be used to subfield such a name in MARC. For example, dates in $d or corporate subheading in $b.

Core 2.0 included a separate category for ROLE. This has been absorbed in Core 3.0 as a qualifier for CREATOR and could be easily coded in a MARC 1XX or 7XX $e.

DATE
This category is similar to provisions in AACR. The date is more likely to be based on research than in a transcribable place on the work.

A work might have several relevant dates that have not been differentiated in the MARC bibliographical format, e.g. creation date, design date, alteration date, restoration date.

ID NUMBER
This category would record numbers which are within range of AACR. Some of these numbers will be universal (e.g. repository numbers) and some would be local (e.g. image classification numbers).

Numbers would most likely be coded in 035 with appropriate identification of source of number.

STYLE/PERIOD
This category is out of scope of AACR.

CULTURE
This category is out of scope of AACR.

No current MARC bibliographic fields are defined to differentiate data in this category from that in STYLE/PERIOD, TYPE or MATERIAL though in many cases each would be relevant to the description of a work of art. The data are somewhat self-differentiating. That is, each of the terms in "Flemish Renaissance panel painting in oils on oak" would fit in a category and one would not look for "Renaissance" under MATERIAL. There may, of course, be differences of categorization for some of this data.

SUBJECT
This category is out of scope of AACR though there is significant overlap with title in many cases. For example, "Madonna and Child" may be the subject but also the only known title.

While this category would likely be recorded in 65X, it does not fit entirely comfortably in either 650 or 655. That is, a sculpture of Saint Sebastian is not about Saint Sebastian nor is it a genre of sculpture.

RELATION
Most relationship information would be recorded by AACR in notes fields.

In MARC, notes may either be in descriptive 5XX fields or in such combined access/descriptive fields as 76X-78X.
DESCRIPTION
AACR notes includes ample provision for additional description of the item in Area 7. MARC also provides ample provision in 5XX fields for additional description.

SOURCE
This category is not often needed in descriptions of printed items. While source of title may be indicated in an AACR description, it is usually because the title is taken from a source on the item but beyond the chief source. For works of art, the source of the title information is more likely to be from a source beyond the item, e.g. museum catalog, artist catalogue raisonnée, vendor catalog.

RIGHTS
This category is not explicitly covered in AACR though the information could clearly be covered by a note. In an archival description, this information would often be covered. MARC field 540 provides for the recording of rights information. Records for images are more likely to have RIGHTS information.
VRA Core Categories and Library Standards
Robin Wendler

This section contrasts the nature of the Visual Resources Association Core Categories with that of the primary pair of library standards, AACR2 and MARC21. The release of version 3 of the VRA Core Categories has changed this review from what it would have been based on version 2. The thinking of the VR community has been evolving very rapidly, and in ways that are both similar to and different from the evolution of library standards.

The VRA CC is a fundamentally different kind of standard than AACR2 or MARC21. It is first and foremost a list of data elements with definitions, that is, a data dictionary. Unlike MARC21, it has not yet adopted any particular encoding syntax, nor is there a fixed record structure. In comparison to the short, simple list of VRA core categories, MARC21 has historically been seen by the visual resources community as overly elaborate and complex in ways that provide no benefit to VR collections, while at the same time lacking or obscuring some concepts which are important to them. To some extent this perception is true, of course, due to several factors:

- The maturity of MARC21 compared to the VRA CC
- The fact that MARC21 consciously addresses many formats of material in many different institutional contexts
- MARC21’s combined function as a data dictionary, an encoding syntax, and in some elements such as fixed fields, a content value standard.
- The inclusion in MARC21 of elements which characterize the metadata itself (e.g., record ID and source, record creation date, cataloging level, descriptive form, and so on), which are important for managing metadata records but are missing from the VRA categories.

In earlier versions of the Core Categories, the elements were narrowly defined in terms of either a Work or a Surrogate (v.1) or Visual Document (v.2). While there was no direction about how these units were to be associated with each other, the obvious implication was that a single description of a Work could be logically associated with descriptions of many Surrogates, that is, a two-tier hierarchy. While this kind of hierarchical relationship can be expressed in MARC21 through the use of linking fields, I know of no systems that take such linkage into account to provide the kind of searching, result displays, and record displays desired for visual resource research.

Version 3 discards the distinction between Work and what is now called "Image" and generalizes the definitions, allowing any element to be applied to either, as appropriate. (Sort of like Format Integration.) This change made many new and much needed elements available to describe Images. More importantly, however, the VRA CC now explicitly recognizes that these packages of description for Works and for Images may have many relationships instead of only a
(relatively) simple one–Work–to–many–Surrogate structure. For example, one Work description for a building might be linked to another Work description for an elevation drawing, and Image descriptions could be linked to each Work record, as appropriate.

The VRA CC differs from AACR in that it is not a cataloging code. For example, it does not specify a "chief source" from which the content of each element should be taken, nor does it speak to how that content should be formulated. Superficially, then, it might appear that it would be logical for catalogers to use AACR2 to construct the values in VRA CC elements. After all, the visual resources community recognizes a need to standardize the choice and form of their metadata, and AACR2 serves this purpose.

However, the visual resource and museum communities have largely rejected AACR2, specifically the rules in chapter 8 and to a lesser extent the guidance on forming access points.¹ AACR2 "feels" wrong to these communities in a number of ways. Most significant, as Sherman noted, is AACR2's reliance on and privileging of so-called received metadata, e.g., information on title pages, containers, etc., which is far less relevant for visual materials. Official dialogue with the VRA could yield rule revision proposals that would increase the applicability of AACR in visual resource organizations.

¹ It is important to add museum descriptive practices to the mix, because it is often more important to visual resources organizations that their practices are coherent with those of museums than with those of libraries. After all, the Work description so central to retrieval of visual resources will in many though by no means all cases represent an object held in a museum.
The Functional Requirements for Bibliographic Records proposes four basic user tasks:

- “to find entities that correspond to the user's stated search criteria (i.e., to locate an entity in a file or database as the result of a search using an attribute or relationship of the entity);
- “to identify an entity (i.e., to confirm that the entity described corresponds to the entity sought, or to distinguish between two or more entities with similar characteristics;
- “to select an entity that is appropriate to the user's needs (i.e., to choose an entity that meets the user's requirements with respect to content, physical format, etc., or to reject an entity as being inappropriate to the user's needs);
- “to acquire or obtain access to the entity described (i.e., to acquire an entity through purchase, loan, etc., or to access an entity electronically through an on-line connection to a remove computer).”

The design of the VRA Core 3.0 can support these four tasks.

**FIND.** The Core's Title element, which not only includes the title or identifying phrase given to a work or image but also title variants, translations, series and larger entity titles, is the most important element for allowing the user to find an entity. What is commonly referred to as authorship in traditional cataloging rules is referred to here as Creator and includes both personal and corporate names and can be qualified by role and attribution. Other organizing elements that aid the user include Style/Period, Culture, and Subject. The Core recommends that all of these elements, except Title, use controlled vocabularies.

**IDENTIFY.** With an artistic work or image, there is often not the opportunity to construct its description based on transcribing data contained in the work or image. Consequently, the Core relies on other technical elements to aid the user in identifying the entity. Record Type, Type, Title, Measurements, Material, Technique, Date, Location, Relation, and Description all provide information that can help the user to determine whether a work or image is the one desired and distinguish among works or images with similar characteristics.

**SELECT.** All the data elements in the Core can be used to aid the user in selecting an entity.
**OBTAIN.** The Core provides custodial information for both a work and an image, although in most cases it is not possible for a user to obtain a copy of a work. However, almost any image may be borrowed, purchased, reproduced or remotely accessed and the Core elements Location, ID Number, Source and Rights give the user the necessary information to do so.

Although the VRA Core can in practice support the four user tasks set forth by FRBR, the VRA standard itself does not guarantee a user will find, identify, select and obtain the desired work or image. Data creation and sharing models can be developed to fulfill FRBR requirements using the VRA Core Categories, but VRA CC by itself is not sufficient.
VRA Core Categories and the Dublin Core Metadata Element Set
Sherry Kelley

If the FRBR provides the common logical model for the content of metadata records, then the Dublin Core Metadata Element Set might be said to be the most likely to provide a shared data structure. This section of the report will concentrate briefly on comparisons between the Dublin Core Metadata Element Set and the VRA Core Categories, Version 3.0 to test this assertion. Comparisons to AACR2 and MARC are made in a separate section.

We choose Dublin Core because it is emerging as the de facto data structure standard for non-library databases and because the VRA Core standard includes Dublin Core mapping for each of its elements. In addition, the Dublin Core has been called the lingua franca, or switching vocabulary for other metadata element sets. Thus, achievement of our goal to create a virtual union database of structured metadata, which relies on the creation of reliable maps or crosswalks, may be served best by comparing the two standards with the most in common and where the mapping is codified (at least in one direction).

To begin with, the Dublin Core is both a simple metadata element set of 15 elements (DCMES) which can stand alone, and a set of qualifiers, the Dublin Core Qualifiers (DCQ). The VRA Core Categories is a qualified metadata element set of 17 categories. Thus, the following comparison will be between VRA Core, 3.0 and DCMES/DCQ. General properties are the same for each: optional use of any of the elements, no mandatory element or set of elements, no prescribed order for elements, and occurrence of each element is unlimited.

Elements and Their Equivalents (in no particular order):

<table>
<thead>
<tr>
<th>DCMES</th>
<th>VRA Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Title</td>
</tr>
<tr>
<td>Creator</td>
<td>Creator</td>
</tr>
<tr>
<td>Subject</td>
<td>Subject</td>
</tr>
<tr>
<td>Description</td>
<td>Description</td>
</tr>
<tr>
<td>Publisher</td>
<td>—</td>
</tr>
<tr>
<td>Contributor</td>
<td>—</td>
</tr>
<tr>
<td>Date</td>
<td>Date</td>
</tr>
<tr>
<td>Type</td>
<td>Type</td>
</tr>
<tr>
<td>Format</td>
<td>Record Type Measurement Material Technique</td>
</tr>
</tbody>
</table>
DCMES, Version 1.1 (http://purl.org/DC/documents/rec-dces-19990702.htm) provides element definitions including name, identifier, definition and comment. The comment attribute may include “recommended best practice.” For example, the Comment attribute for the Subject Element states: “Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme.” The DCQ standard (http://purl.org/dc/documents/rec/dcmes-qualifiers-20000711.htm) provides for further qualification of Subject through the inclusion of the standard used for the data value, the “Element Encoding Scheme(s)” or through “Element Refinements.” In the case of the Subject Element, no Element Refinements qualifiers are possible, but Element Encoding Schemes are, and possible standards are listed including LCSH, MeSH, DDC, LCC, and UDC.

The VRA Core Categories, Version 3.0 (http://www.gsd.harvard.edu/~staffaw3/vra/vracore3.htm) provides element definitions which include the category term, followed by a set list of attributes: Qualifiers (list of labels if qualified); Definition or Description; Data Values; the term “(controlled)” for selected categories; VRA Core 2.0 mapping; CDWA mapping; Dublin Core mapping; and, optionally, Comment. The Data Value attribute indicates the standard(s) that is to be used (recommended or prescribed). Certain of the uncontrolled Data Value attributes contain statements specifying that the information is formulated according to appropriate standards for data contents and lists examples of these.

Looking at the Subject category in the VRA Core as an example, we see that like DCMES, there are no Qualifiers. The Data Values sources recommended for these are AAT, TGM, ICONCLASS, and Sears Subject Headings. It is interesting to note that this attribute is not listed as “controlled” and that there is no overlap with the DCMES list of standards. In neither scheme are the lists of standards prescriptive. The correspondence between supplied information for this element in each standard should be close. For example, controlled vocabulary standards are recommended and the appropriate standards identified. (The VRA Core does contain a list of recommended standards in its introduction which do overlap with DCMES.)
The VRA provides qualifiers for nine of its categories: Title, Measurements, Material, Creator, Date, Location, ID Number, Style/Period, and Relation. The DCQ qualifies six elements: Title, Description, Date, Format, Relation, and Coverage. Several of these overlap and are closely equivalent: Title, Measurements-Material (VRA)/Format (DC), Date, and Relation.

Both standards follow the “1:1 principle” developed by the Dublin Core community. This is a long-standing, hotly debated issue in the library community and is best known as the multiple versions problem. The current U.S. cataloging practice of describing more than one version of a resource in a single record may, however, work against the successful interchange of records amongst different databases. The requirement that one object or resource be represented by one metadata package, the 1:1 principle, might best support interoperability goals.

In this cursory linguistic analysis of two well-developed data content standards, several points emerge that suggest possible models for future element/category set development that will best facilitate semantic and content interoperability in the library catalog environment:

- A common set of terminology is recommended. (For example, the VRA metadata set consists of “categories,” DC of “elements”; VRA definition of Source = a reference to the source of the information recorded about the work or image, DC definition of Source = a reference to a resource from which the present work is derived.)

- The term definitions must be precise and well defined. (VRA is closer to meeting this test than DC, by the design of each.)

- There should be consistency in an element’s defined sets of attributes, following ISO 11179. (For example, DC includes Name and Identifier attributes in its element definition. VRA does not.)

- Similar metadata properties should be shared across all metadata standards. These should be expressed and used in a similar fashion within each standard. (Both VRA and DC articulate these similar properties and use them consistently. For example, order, optionality, and repeatability of elements are addressed in both.)

- Standards should be organized in a similar manner. This would facilitate finding analogous sections across standards. (Both VRA and DC begin with an introduction followed by element definitions. DC complicates the ability to make cross comparisons by listing its qualifiers in a separate document.)

- Content rules must be specified, either as recommendations or prescriptions. (VRA is closer to meeting this test.) Resolution rules are needed for differences.
Controlled vocabularies should be promulgated and specified. (This is true for both names and subjects. Both attempt to meet this test for subjects. The VRA meets this test for names.)

Standards used should be referenced in the metadata record. (DC meets this test.)

Principle of 1:1 should be supported.

We have focused on the DCMES/DCQ in this section, trying to note similarities or their lack. We conclude that mapping from VRA Core to DCMES/DCQ will result in reasonably close correspondence for most elements thus achieving reliable interoperability for resource description with little loss of data. There will be loss of precision in those instances of many-to-one and one-to-many mappings. A more detailed mapping for VRA Core, Dublin Core and other standards is available at http://www.getty.edu/gri/standard/intrometadata/3_crosswalks/index.htm (Introduction to Metadata: Pathways to Digital Information edited by Murtha Baca. 2000.)
VRA Core Categories, Version 3.0

a project

of the Visual Resources Association Data Standards Committee

Contents:
Introduction
VRA Core Categories, Version 3.0
Compendium of Examples

INTRODUCTION

The VRA Core Categories, Version 3.0 consist of a single element set that can be applied as many times as necessary to create records to describe works of visual culture as well as the images that document them. The Data Standards Committee followed the "1:1 principle," developed by the Dublin Core community, i.e., only one object or resource may be described within a single metadata set. How the element sets are linked to form a single record is a local database implementation issue. The order of the categories in the VRA Core 3.0 is arbitrary, and local implementations are encouraged to determine their own field sequence that will appropriately describe their data.

The VRA Core 3.0 is intended as a point of departure—not a completed application. The elements that comprise the Core are designed to facilitate the sharing of information among visual resources collections about works and images. These elements may not be sufficient to fully describe a local collection and additional fields can be added for that purpose. We also recommend the use of qualifiers with certain elements in the VRA Core 3.0 so that the data values contained in the element may be more precisely identified. For instance, a "Notes" qualifier to clarify the data may be an appropriate addition to many of the current elements. Furthermore, every element may be repeated as many times as necessary within a given set to describe the work or image.

How does VRA Core 3.0 relate to VRA Core 2.0?

The VRA Core 3.0 conflates the Work (W) and the Visual Document (V) element sets from VRA Core 2.0 into a single universally applicable element set. Core 3.0 retains the same order of elements, and where possible, the same category titles and definitions that were used in Core 2.0. Users of the Core 3.0 will wish to rearrange these elements in their local applications into sequences which reflect their needs.
Because work and image records use the same element set, a new element - Record Type - was added. This element defines the type of resource that is being described. VRA Core 3.0 also includes a new "Rights" element as well as new category qualifiers.

**What is a Work?**

In the context of the VRA Core 3.0, a work is a physical entity that exists, has existed at some time in the past, or that could exist in the future. It might be an artistic creation such as a painting or a sculpture; it might be a performance, composition, or literary work; it might be a building or other construction in the built environment; or it might be an object of material culture. Works may be single items, or they may consist of many parts.

**What is an Image?**

An image is a visual representation of a work. It can exist in photomechanical, photographic and digital formats. In a typical visual resources collection, an image is a reproduction of the work that is owned by the cataloging institution and is typically a slide, photograph, or digital file. A visual resources collection may own several images of a given work.

The term "visual document", which was used in the VRA Core 2.0, has been eliminated because a visual document could be defined not only as an image but as a type of work, such as a preparatory sketch or an architectural plan for a building.

**How do Work records and Image records link to each other?**

How the VRA Core 3.0 element sets are linked to form a single record is a local database implementation issue; however, it is assumed that work records will be linked to the relevant image records. For many collections, the creation of two linked element sets to describe a work (e.g., a painting) and an image (e.g., a slide of that painting) will be sufficient. In other cases a work (e.g., a building) might be linked to multiple images (e.g., digital images showing different aspects of the building). However, it will become increasingly common to associate two or more image records with a given work record to document the existence of different formats-slides, digital files, photographs, etc. Naturally most people will not want to create more levels than necessary in order to describe the sequence from work to image. Often only two element sets will be necessary; however, sometimes intermediate sets will be unavoidable.

It is possible to repeat and link together the VRA Core 3.0 element set in order to more fully describe a work for which a "visual document" (i.e., another work) exists. For instance, one might use an element set to describe a building's structure and another linked element set to describe the" visual document" (e.g., a site plan). The image record(s) will then be linked to the appropriate work record. This will allow views of the building to be associated with the primary work (the building) and images of the plan with the record for the "visual document."

An alternative solution which will be appropriate in certain cases is to use the Relation element as the linking mechanism. For instance, this solution should allow the cataloger to relate a painting with a copy of that painting.
**Am I required to use every category?**

Only those elements which are relevant for a specific record should contain data. There is no need to place any data value, including "n/a" or "unknown" into these elements to indicate that they are blank. There is no requirement to include a minimum number of elements in order to create a valid record.

**May I repeat categories?**

All categories and qualifiers are repeatable. Moreover, identical data values may be used in more than one category.

**How do I control the data values for each element?**

The Data Standards Committee recommends the use of controlled vocabularies, particularly the Getty vocabularies and other standard authorities for use with many of the categories. No single authority will suffice for the entire set of the VRA Core Categories, Version 3.0 or even in many cases for a single element in the set. We suggest that collections compile a list of data content vocabularies and authorities which are appropriate for use for each field in their local applications. We also suggest that each collection limit the number of authorities or vocabularies used in each field, and, if possible, to indicate which authority has been used. We recommend that collections develop uniform ways of entering data into the fields of their local applications. Some of these issues will be addressed and resolved by the Committee when it compiles further guidance and recommendations for the use of controlled vocabularies.

**The VRA Core 3.0 is a work in progress**

Although the basic categories are set as prescribed in this document, the Data Standards Committee will continue to develop the VRA Core 3.0 in the following areas:

- ✔ mapping to CDWA, MARC and other metadata standards.
- ✔ further guidance on recommendations for the use of controlled vocabularies.
- ✔ additions to the Compendium of Examples.

We welcome your comments and suggestions. Please contact Elisa Lanzi (elanzi@smith.edu) or Linda McRae (mcrae@chekhov.arts.usf.edu)
Category attributes
In this document, each category is displayed with the following attributes:
  Qualifiers = indicates existence of qualifiers and label
  Definition = a narrative statement that defines the concept of the category.
  Data Values = recommendations for use of controlled vocabularies or standardized lists.
  VRA Core 2.0 = mapping to VRA Core Categories 2.0
  CDWA = mapping to the Categories for the Description of Works of Art
  Dublin Core = mapping to Dublin Core Metadata Element Set, Version 1.1
  Comment = questions and comments for discussion

Standards Recommended
  AACR
  AAT
  CDWA
  LCSH
  LCTGM
  TGN
  ULAN
VRA CORE CATEGORIES, Version 3.0

RECORD TYPE
Qualifiers: None
Definition: Identifies the record as being either a WORK record, for the physical or created object, or an IMAGE record, for the visual surrogates of such objects.
Data Values (controlled): work, image
VRA Core 2.0: None
CDWA: None
Dublin Core: TYPE

TYPE
Qualifiers: None
Definition: Identifies the specific type of Work or Image being described in the record.
Data Values (controlled): recommend AAT
VRA Core 2.0: W1 Work Type; V1 Visual Document Type
CDWA: Object/Work - Type; Related Visual Documentation-Image Type
Dublin Core: TYPE

TITLE
Qualifiers:
- Title.Variant
- Title.Translation
- Title.Series
- Title.Larger Entity
Definition: The title or identifying phrase given to a Work or an Image. For complex works or series the title may refer to a discrete unit within the larger entity (a print from a series, a panel from a fresco cycle, a building within a temple complex) or may identify only the larger entity itself. For an Image record this category describes the specific view of the depicted Work.
Data Values: formulated according to data content rules for titles of works of art
VRA Core 2.0: W2 Title; V7 Visual Document View Description
CDWA: Titles or Names - Text; Related Visual Documentation - View; Related Visual Documentation - View - Indexing Terms
Dublin Core: TITLE
MEASUREMENTS
Qualifiers:
   Measurements.Dimensions
   Measurements.Format
   Measurements.Resolution

Description: The size, shape, scale, dimensions, format, or storage configuration of the Work or Image. Dimensions may include such measurements as volume, weight, area or running time. The unit used in the measurement must be specified.

Data Values: formulated according to standards for data content (e.g., AACR, etc.)

VRA Core 2.0: W3 Measurements; V2 Visual Document Format; V3 Visual Document Measurements

CDWA: Measurements - Dimensions; Measurements - Shape; Measurements - Format; Related Visual Documentation - Image Measurements

Dublin Core: FORMAT

MATERIAL
Qualifiers:
   Material.Medium
   Material.Support

Description: The substance of which a work or an image is composed.

Data Values (controlled): AAT

VRA Core 2.0: W4 Material

CDWA: Materials and Techniques – Materials - Name, Materials and Techniques – Materials - Role

Dublin Core: FORMAT

TECHNIQUE
Qualifiers: None

Description: The production or manufacturing processes, techniques, and methods incorporated in the fabrication or alteration of the work or image.

Data Values (controlled): AAT

VRA Core 2.0: W5 Technique

CDWA: Materials and Techniques-Processes or Techniques- Name

Dublin Core: FORMAT
CREATOR

Qualifiers:
  Creator.Role
  Creator.Attribution
  Creator.Personal name
  Creator.Corporate name

Description: The names, apppellations, or other identifiers assigned to an individual, group, corporate body, or other entity that has contributed to the design, creation, production, manufacture, or alteration of the work or image.

Data Values (controlled): recommend ULAN and AAAF (LC authority files).

Comment: Controlled list for role (e.g., artist, engraver, architect, etc.) and attribution (e.g., school of, workshop of, circle of, style of, follower of, attributed to, etc.) in development.

VRA Core 2.0: W6 Creator; W7 Role

CDWA: Creation – Creator – Identity - Names, Creation – Creator – Identity - Qualifier, Creation – Creator – Identity - Roles

Dublin Core: CREATOR, CONTRIBUTOR

DATE

Qualifiers:
  Date.Creation
  Date.Design
  Date.Beginning
  Date.Completion
  Date.Alteration
  Date.Restoration

Description: Date or range of dates associated with the creation, design, production, presentation, performance, construction, or alteration, etc. of the work or image. Dates may be expressed as free text or numerical.

Data Values: formulated according to standards for data content (e.g., AACR, DC dates, etc.)

VRA Core 2.0: W8 Date; V4 Visual Document Date

CDWA: Creation - Date

Dublin Core: DATE, COVERAGE
LOCATION

Qualifiers:
Location.Current Site
Location.Former Site
Location.Creation Site
Location.Discovery Site
Location.Current Repository
Location.Former Repository

Description: The geographic location and/or name of the repository, building, or site-specific work or other entity whose boundaries include the Work or Image.

Data Values (controlled): BHA index, AAAF (LC), Grove's Dictionary of Art Location

Appendix

VRA Core 2.0: W9 Repository Name; W10 Repository Place; V5 Visual Document Owner
CDWA: Current Location - Repository Name, Current Location - Geographic Location, Context – Architectural - Building/Site, Context – Architectural - Building/Site - Place, Context – Archaeological - Excavation Place; Related Visual Documentation - Image Ownership - Owner's Name

Dublin Core: CONTRIBUTOR, COVERAGE

ID NUMBER

Qualifiers:
ID Number.Current Repository
ID Number.Former Repository
ID Number.Current Accession
ID Number.Former Accession

Description: The unique identifiers assigned to a Work or an Image.

Data Values:

VRA Core 2.0: W11 Repository Number; V6 Visual Document Owner Number
CDWA: Current Location - Repository Numbers; Related Visual Documentation - Image Ownership - Owner's Number

Dublin Core: IDENTIFIER
STYLE/PERIOD

*Qualifiers:*
- Style/Period.Style
- Style/Period.Period
- Style/Period.Group
- Style/Period.School
- Style/Period.Dynasty
- Style/Period.Movement

*Description:* A defined style, historical period, group, school, dynasty, movement, etc. whose characteristics are represented in the Work or Image.

*Data Values (controlled):* recommend AAT

VRA Core 2.0: W14 Style/Period/Group/Movement

CDWA: Styles/Periods/Groups/Movements - Indexing Terms

Dublin Core: COVERAGE, SUBJECT

CULTURE

*Qualifiers: None*

*Description:* The name of the culture, people (ethnonym), or adjectival form of a country name from which a Work or Image originates or with which the Work or Image has been associated.

*Data Values:* recommend AAT, LCSH

VRA Core 2.0: W15 Nationality/Culture

CDWA: Creation – Creator – Identity - Nationality/Culture/Race - Citizenship;
Creation – Creator – Identity - Nationality/Culture/Race - Culture

Dublin Core: COVERAGE

SUBJECT

*Qualifiers: None*

*Description:* Terms or phrases that describe, identify, or interpret the Work or Image and what it depicts or expresses. These may include proper names (e.g., people or events), geographic designations (places), generic terms describing the material world, or topics (e.g., iconography, concepts, themes, or issues).

*Data Values:* recommend AAT, TGM, ICONCLASS, Sears Subject Headings

VRA Core 2.0: W16 Subject; V8 Visual Document Subject

CDWA: Subject Matter – Description - Indexing Terms; Subject Matter – Identification - Indexing Terms; Subject Matter – Interpretation - Indexing Terms, Related Visual Documentation – View - Indexing Terms

Dublin Core: SUBJECT
RELATION

Qualifiers: Proposed list for relationship types
- part of
- larger context for
- larger entity
- sketch for
- based on
- cartoon for
- model for
- study for
- plan for
- document for
- document of
- prototype for
- copy after
- copy of
- original of
- facsimile of
- version of
- format of
- references
- referenced by
- derived from
- source for

Description: Terms or phrases describing the relationship between the Work or Image being cataloged and other Works or Images. Relationships can be whole/part (which occurs when one or more parts are dependent upon the whole, e.g., a series) or they might be associative (when two or more Works or images share a relationship through association).

Data Values:
- VRA Core 2.0: W17 Related Work; W18 Relationship Type
- CDWA: Related Works - Relationship Type; Related Works - Identification
- Dublin Core: RELATION
DESCRIPTION

Qualifiers: None

Description: A free-text note about the Work or Image, including comments, description, or interpretation, that gives additional information not recorded in other categories.

Data Values:
VRA Core 2.0: W19 Notes
CDWA: the "Remarks" section for various categories; Physical Description
Dublin Core: DESCRIPTION

SOURCE

Qualifiers: None

Description: A reference to the source of the information recorded about the work or the image.
For a work record, this may be a citation to the authority for the information provided. For an image, it can be used to provide information about the supplying Agency, Vendor or Individual; or, in the case of copy photography, a bibliographic citation or other description of the image source. In both cases, names, locations, and source identification numbers can be included.

Data Values:
VRA Core 2.0: V9 Source
CDWA: Related Visual Documentation – Image – Source - Name; Related Visual Documentation – Image - Source
Dublin Core: SOURCE

RIGHTS

Qualifiers: None

Description: Information about rights management; may include copyright and other intellectual property statements required for use.

Data Values:
VRA Core 2.0: None
CDWA: Related Visual Documentation - Copyright Restrictions
Dublin Core: RIGHTS
COMPENDIUM OF EXAMPLES

The following examples were created to demonstrate how the VRA Core Categories 3.0 might be implemented. Variations in data content (and the way the data is entered) are intentional in order to illustrate variation in practice. Some of the examples include the use of the Core for local administrative metadata (e.g., digital images made from slides). We include these to illustrate how the Core might be used to describe various derivatives. Please Note: these examples were created by the Data Standards Committee and do not represent the cataloging work of any institution.

Example 1
The following data sets describe an etching in a museum collection and a digital image of the etching.
Record Type = work
Type = print
Title = This is how it happened
Title.Variant = As Sucedi
Measurements.Dimensions = 24.5 x 35 cm
Material.Medium = ink
Material.Support = paper
Technique = etching
Technique = drypoint
Creator.Personal Name = Francisco Jose de Goya y Lucientes
Creator.Role = printmaker
Date.Creation = ca. 1810-1814
Location.Current Repository = Ann Arbor (MI, USA), University of Michigan Museum of Art
Location.Creation Site = Madrid (ESP)
ID Number. Current Accession = 1977/2.15
Style/Period = Romanticism
Culture = Spanish
Subject = war
Relation.Part of = Part of Disasters of war
Description = This is how it happened is No. 47 (33) from the series "The Disasters of War", 4th edition, plates for the series ca. 1810-14, 1820, 4th edition was published 1906.
Rights = Weber family trust

Record Type = image
Type = digital
Example 2

The following data sets describe a slide of a work of art in a museum.

Record Type = work
Type = sculpture
Title = Standing Buddha
Measurements.Dimensions = 64.5 cm
Material.Medium = bronze
Date.Creation = 5th cent.
Location.Current Repository = New Delhi (IND), National Museum of India
Location.Former Site = Phophnar (IND)
Style/Period.Dynasty = Vakataka dynasty
Style/Period = Gupta
Culture = Indian
Subject = Buddha

Record Type = image
Type = slide
Title = detail of head
Creator = Nikon, Bill
Creator.Role = photographer
Date.Creation = 1995
Location.Current Repository = Northampton (MA, USA), Smith College Image Collections
ID Number.Accession = 400061
Source = Indian bronze masterpieces: the great tradition: specially published for the Festival of India
Rights = publisher
Example 3

The following data sets describe a chair that was documented by a photograph. The photograph was later copied to a slide format and scanned to create a digital image. 

Record Type = work
Type = architectural furniture
Type = seating furniture
Type = dining chair
Type = tall back chair
Type = spindle-back chair
Title = Frederick C. Robie House dining chair
Measurements.Dimensions = 52.5 x 18 x 19.25 cm
Material. Medium = oak
Material. Medium = leather
Technique = cabinet making
Technique = upholstering
Creator. Personal Name = Wright, Frank L. (1867-1959)
Creator. Role = designer
Date. Design = 1906
Date. Completion = 1909
Location. Current Repository = Chicago (IL, USA), University of Chicago, David & Alfred Smart Museum of Art
Location. Former Site = Frederick C. Robie House, Chicago, IL, US
ID Number. Current Repository = 1965.2.14furn
Style/Period = Arts and Crafts
Culture = American
Relation. Part of = Frederic C. Robie House
Description = The dining chair is part of a set of six designed specifically for the dining room of the Frederick C. Robie House.
Rights = David & Alfred Smart Museum of Art, University of Chicago, IL, US

Record Type = work
Type = photograph
Type = gelatin silver print
Title = interior view of Frederic C. Robie House dinning room with furnishings
Measurements. Dimensions = 8x10"
Material. Medium = gelatin
Material. Medium = silver
Material. Support = photo paper
Technique = photography
Technique = gelatin silver process
Creator.Personal name = Fuermann, Henry
Creator.Role = photographer
Date.Creation = 1910
Location.Current Repository = Scottsdale (AZ, US), Frank Lloyd Wright Foundation, Taliesin West
ID Number.Current Repository = 0908.018
Culture = American
Subject = Frank C. Robie House
Subject = dining room
Subject = dining table
Subject = dining chair
Subject = stained glass window
Rights = Frank Lloyd Wright Foundation, Taliesin West, Scottsdale, AZ, US

Record Type = image
Type = slide
Title = interior view of Frederick C. Robie House dining room with furnishings
Measurements.Dimensions = 2x2"
Measurements.Format = 35 mm
Measurements.Format = horizontal
Technique = photography
Creator = Mole, Christopher
Creator.Role = copy photographer
Date.Creation = 1985
Location.Current Repository = Albuquerque (NM, US), University of New Mexico, Bainbridge Bunting Slide Library
ID Number.Current Repository = UNM d000614
ID Number.Current Repository = FURN/AMER/Wright/Robie.383787
Source = gift of Christopher Mole
Rights = Frank Lloyd Wright Foundation, Taliesin West, Scottsdale, AZ, US

Record Type = image
Type = digital
Title = interior view of Frederick C. Robie House dining room with furnishings
Measurements.Dimensions = 72dpi
Measurements.Format = jpeg
Technique = scanning
Creator.Personal Name = Gopher. Mary
Creator.Role = scanner
Date.Creation = 1997
Location.Current Repository = Albuquerque (NM, US), University of New Mexico, Bainbridge Bunting Slide Library
Source = UNM dOOO614
Rights = Frank Lloyd Wright Foundation, Taliesin West, Scottsdale, AZ, US

Example 4
The following data sets describe a temporary piece of architecture erected for the entry of Emperor Charles V into Nuremburg on Feb. 16, 1541. The arch incorporates elements from the Arch of Titus in Rome and from Serlio's Libro d'architettura. It was removed after the occasion, packed away, and was modified for reuse later for the triumphal entry of Emperor Matthias. Eventually it disappeared. Our primary pictorial knowledge about this arch is contained in a broadsheet - a woodcut by Peter Flotner and in a preliminary drawing attributed to Georg Pencz, who was at that time the official city-painter of Nuremberg.
Record Type = work
Type = architecture
Type = triumphal arches
Type = arches of honor (Ehrenpforten)
Type = temporary structures
Title = Triumphal arch for Charles V
Date = 1541
Location.Former Site = Nuremberg (DEU), Burgstrasse
Style/Period = Renaissance
Culture = German
Subject = Charles V
Subject = corinthian columns
Subject = Imperial eagle
Subject = bandstands
Relation.derived from = Arch of Titus, Rome (ITA)
Relation.derived from = Sebastiano Serlio, Libro d'architettura, Book III (1537)
Relation.derived from = Sebastiano Serlio, Libro d'architettura, Book IV (1540)
Relation.source for = Triumphal Arch of Maximillian II (1570)
Relation.source for = Triumphal Arch of Emperor Matthias (1612)
Description = This was a temporary piece of architecture erected for the Entry of Emperor Charles V into Nuremburg on Feb. 16, 1541. The arch incorporates elements from the Arch of Titus in Rome and from Serlio's Libro d'architettura. It was removed after the occasion, packed away, and was modified for reuse later for the triumphal entries of Maximillian II and of Emperor Matthias. Eventually it disappeared. Our primary pictorial knowledge about this arch is contained in a broadsheet--a woodcut by Peter Flotner and in a preliminary drawing attributed to Georg Pencz, who was at that time the official city-painter of Nuremberg.
Record Type = work
Type = print
Type = woodcut
Type = broadside
Title = Triumphal Arch for Charles V
Creator = Peter Flotner
Creator.Role = artist
Date = 1541
Subject = triumphal arch of Charles V in Nuremberg
Relation.derived from = Drawing by Georg Pencz in the Staatsarchive, Nuremberg, Germany
Description = This broadside of the finished arch was printed in Frankfurt am Main by Christian Egenolph with text of the Latin inscriptions and a German translation by Hans Sachs.

Record Type = image
Type = black and white slide
Title = full view
Measurements.Format = 35 mm
Material.Support = LPD4 film
Creator = William Staffeld
Creator.Role = staff photographer
Date.Creation = ca. 1990
Location.Current Repository = Ithaca (NY, USA), Knight Visual Resources Collection, AAP, Cornell University
ID Number.Current Repository = B-J3 Nur 1.32 Cha 4b-2
Rights = (c) Geisberg, 1974
Example 5

*Records for a mural in situ and a slide of a detail of same.*

**Record Type = Work**
**Type = Painting**
**Type = Mural**
**Title = Tribute Money**
**Measurements.Format = Panel**
**Material.Medium = Buon fresco**
**Material.Medium = Fresco a secco**
**Material.Support = Plaster**
**Technique = Fresco**
**Creator.Personal name = Tomasso Masaccio**
**Creator.Role = Painter**
**Date.Creation = ca. 1427-1428**
**Location.Current Site = Florence (ITA), Brancacci Chapel, Church of the Carmine**
**Style/Period.Period = Renaissance**
**Culture = Italian**
**Subject = Christ**
**Subject = St. Peter**
**Relation.Larger entity = Brancacci Chapel**
**Description = One of the panels in the Brancacci Chapel generally attributed to Masaccio, other panels are attributed to Masolino and others.**
**Rights = Public domain**

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**Record Type = Image**
**Type = Color slide**
**Title = Detail, St. Peter taking money from fish**
**Measurements.Format = 35 mm**
**Material = Film**
**Technique = Photography**
**Location.Current Repository = Hanover (NH, USA), Visual Resources Coll., Dartmouth College Art History Department**
**ID Number.Current Accession = 5304.10**
**Subject = St. Peter**
**Subject = Fish**
**Subject = Animals**
**Source = Scala**
**Rights = Scala**
Example 6
A record for a work of architecture and a slide of it.
Record Type = work
Type = architecture
Type = museums
Title = J. Paul Getty Museum
Title.Variant = Getty Museum
Creator.Personal Name = Meier, Richard
Creator.Role = architect
Creator.Personal Name = Olin, Laurie
Creator.Role = landscape architect
Date.Creation = 1994-1997
Location.Current Site = Los Angeles, CA, US
Culture = American
Subject = art museums
Subject = research centers
Relation.Part of = Getty Center, Los Angeles, CA,US

Record Type = image
Type = slide
Title = entry level plan
Creator.Personal Name = John Cook
Creator.Role = photographer
Date.Creation = 1998
ID Number.Current Accession = 121401
Subject = entrances
Subject = floor plans
Source = Architecture, Dec.,1997, p.92
Rights = publisher
Appendix 2.

Brief Bibliography


The VRA Bulletin, v. 25, no. 4 (winter 1998)

Additional Resources:

Available at: http://www.getty.edu/gri/standard/intrometadata/3_crosswalks/content.htm


Program for Cooperative Cataloging. Core Bibliographic Record for Monographic Computer Files. 1999.
Available at: http://lcweb.loc.gov/catdir/pcc/cfcore.html

Available at: http://lcweb.loc.gov/catdir/pcc/coregm.html


Compiled by Sherry L. Vellucci. Updated by Sherry Kelley.