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# Documenting variable media art : a case study

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DOCUMENTING VARIABLE MEDIA ART: A CASE STUDY

A Thesis

Presented to

The Faculty of the School of Library & Information Science

San José State University

In Partial Fulfillment

of the Requirement for the Degree

Master's Degree of Library and Information Science

by

Nicole Marie Hunter

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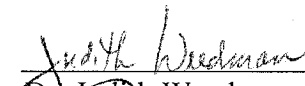
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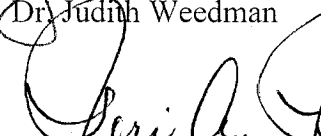
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## ABSTRACT

### DOCUMENTING VARIABLE MEDIA ART: A CASE STUDY

By Nicole Marie Hunter

In the 20<sup>th</sup> century art-making expanded beyond traditional techniques like painting and sculpture. New technologies and the expansion of what is considered art created opportunities for any media imaginable to be used by artists. After exhibition many of these variable media works do not exist in physical form. What remains is the intent of the artist and documentation of the work. This paper looks at the unique aspects of this loose genre of art as a basis for a metadata structure.

Using the proposed Media Art Notation System (MANS), catalog records were created for works from the archives of New Langton Arts, a nonprofit art gallery. The findings illuminated issues in documenting variable media art, the proposed data structure, and the very idea of cataloging this non-traditional art form. Finally, recommendations are made for the creation of an appropriate data structure and the cataloging of variable media artwork

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## Chapter 1: Introduction

A pile of licorice candies sits in the corner of an art gallery with an invitation to viewers to take one from the pile. “A lot of professionals are crackpots” runs across an LCD display hanging on the wall of a museum. A woman sits on the floor passively as members of the audience approach her individually and make a single snip to her clothing. A synchronized montage of performers from around the globe plays on several televisions nestled among plants and trees. Visitors on the Internet remotely control a virtual Ouija board, as it is simultaneously displayed in a museum. Each of these works of art—Felix Gonzales-Torres’ *Untitled (Public Opinion)*, Jenny Holzer’s *Truisms*, Yoko Ono’s *Cut Piece*, Nam June Paik’s *TV Garden*, and Ken Goldberg’s *Ouija 2000*—has been installed, performed, displayed, viewed, and interacted with in art galleries and museums.

Each of these installations or performances is a work of art, yet these each defies the classifications of traditional art forms—painting, drawing, sculpture, etc. These artists employ non-traditional components—either analog (e.g., candy, people) or digital (e.g., software programs, digital displays)—to express their artistic intent. The realm of media that may be used in this type of art is so vast that it is impossible to enumerate. What these works do have in common is the complexity of their structure, the variability of the media, and their ephemeral nature.

These alternative art forms have been classified as ephemeral, avant-garde, time-based, and new media art among several other genre titles. Works in this loose genre have been part of the cultural landscape since the 1960s; however, often what remains of

these works is merely the documentation of their brief existence. The work is ephemeral often existing only in the brief period of time in which it is shown before it is disassembled. The “tried and true” forms of art such as painting, drawing, and sculpture are static. While their properties may be altered over time, their basic form is retained and through modern conservation efforts will probably have long lives. Even music, which can be played with different instruments and different orchestrations, keeps the same melody. Alternately, artwork born of variable media is inherently mutable and can be short-lived. In this genre, mutability is not “considered corruptive but rather an inherent property of the medium and the work” (Rinehart, n.d.). The mutability and ephemeral nature of these works is what characterizes this genre; it is also what makes them difficult to capture, collect, curate, and document. However, this has not stopped galleries and museums from exhibiting and collecting these works.

### *The Setting*

Several galleries and institutions have formed over the last 30 years to showcase these art forms. In 1974, the Dia Art Foundation began collecting large-scale, ephemeral, and site-specific works by prominent artists in alternative art forms such as Josef Beuys and Dan Flavin (Dia Art Foundation, 2007). Two years later, the Franklin Furnace was started in New York City with the mission of providing a space for literary, time-based, and performance art (Wilson, 1998). In 1981, V2 in the Netherlands formed as the institute for unstable media—a center for the intersection of art and technology (V2, n.d.). More recently, in 1996 Rhizome.org began as a web repository for Internet based art (Rhizome, n.d.).

In 1975, 80 Langton (later New Langton Arts) was born out of a need in the San Francisco arts community for a venue for work that, either because of its medium or limited commercial viability, would not be shown in local galleries and museums (Reynolds, 1990). Members of the San Francisco Art Dealers group rented out storage space in the basement of an old coffin factory. The rent they paid covered the cost of a gallery space on the ground floor that became a critical venue for conceptual, video, and large-scale art on the West Coast (Reynolds, 1990). The programming was not limited to visual arts and included performance art, music, and literature. 80 Langton was founded on the principles that artists should be given complete freedom; that they deserve honoraria for their work; and that Langton would promote the shows and assure that they would document all works shown in the gallery (Reynolds, 1990). For 30 years Langton has provided space to showcase art, literature, performance, and music while maintaining their core principles.

These alternative art spaces differ from traditional museum settings in several ways. Typically, these spaces are not collecting institutions, but serve as showcases for emerging art forms and artists. Unlike a gallery space, these art institutions are not selling these works either. Therefore the focus of what these spaces keep is on the documentation of the works. This results in a large amount of information about the work, but not the work itself remaining.

### *Metadata*

The most common, succinct and literal definition for metadata is to say that it is “data about data.” This has been interpreted many different ways by many different

information communities. In the computing community, metadata can serve to provide access to various digital objects used in programming or on the web that may not be easily interpreted by humans (Caplan, 2003). In the realm of libraries, museums, and archives metadata is the information created for cataloging systems to “arrange, describe, and otherwise enhance access to an information object” (Gilliland-Swetland, 1998). For savvy users of digital cameras, metadata may be the information that is automatically attached to each photograph, such as date, image size, and camera specifications, or the title and keywords that one adds later. In all of these instances, metadata describes any object— analog or digital—for the purpose of providing information to other users to increase knowledge of or improve access to that object.

It is essential to understand that metadata is not merely a random series of words that describes a book, a web page, photograph or a piece of art. Rather metadata is typically a structured set of fields populated in a controlled manner. To this end, there are several data structures that have been developed for specific types of information and objects. As an example, libraries have been using MACHine Readable Cataloging, or MARC, as their common structure for capturing and exchanging information about books and other library materials.

### *Definitions*

The purpose of this study is to examine how long-standing, yet still non-traditional, genres of art can be documented through a data structure developed specifically to describe the characteristics of variable media art. As the conversation about metadata standards is evolving, it is important to clarify definitions of some of the

terms used throughout this paper. The most basic of these definitions are the distinctions between descriptive, administrative, and structural metadata.

Descriptive metadata is used primarily for discovery or retrieval of an object. Descriptive metadata enumerates the basic information about an object such as what it is called, what form it takes, its size, creator, etc. In terms of variable media art, or any art, this could include the name of the piece, the artist, and the form the art takes. These identifying descriptors are useful in finding an object, but also in distinguishing this object from other similar objects.

Administrative metadata aids in the management of the described object. This information can include who created the metadata, who has access to the object, what rights govern an object, etc. This is useful in terms of art to know who created the metadata about the art, when it was created, who holds the rights to this art, and where the work is currently located. For the most part administrative metadata is useful to the creators of the metadata and less important for the retrieval of objects, as these fields relate to the management of the object.

Structural metadata is information about how parts of an object relate to one another. Sometimes defined as relating specifically to digital objects (Caplan, 2003), structural metadata can be used for any object that has multiple parts. Therefore, this could be information about how digital files are ordered or, in the case of alternative forms of art, this information could relate to how the various aspects of an installation or performance were put together or staged.

While the differences between descriptive, administrative, and structural metadata distinguish the differences in the types of metadata for variable media art, the next set of definitions is to clarify language used throughout this paper. Often the term “metadata scheme” is used to talk about “sets of metadata elements and rules for their use that have been defined for a particular purpose” (Caplan, 2003). This, of course, should be distinguished from “metadata *schema*,” which is a formalized metadata structure within XML.

For this paper, the vocabulary to describe the individual elements that make up a metadata set, as well as the set itself are borrowed from the Research Libraries Group, now part of OCLC. For the discrete units of information, such as the title or related date, the terms data field and data element are used interchangeably. RLG defines these as a “named unit of information.” Each data field identifies a specific piece of information to be captured about the object being described. Instead of using the term metadata scheme, the term data structure, or occasionally dataset, is used to denote a formalized grouping of these data fields in order to describe an object.

#### *Metadata and Art*

There are currently two major data structures for the cataloging of art, the Categories for the Description of Art (CDWA) and the Visual Resources Association Core Categories (VRA). CDWA provides a “conceptual framework for describing and accessing information about works of art, architecture, other material culture, groups and collections of works, and related images” (Baca & Harpring, 2006). This descriptive data structure is made up of over 500 data elements from which a core group of elements has

been distilled as the minimum of information needed to describe and access works. With variable media art there may not be an artwork to document, but there may be plenty of documentation including surrogates of the original artwork. The VRA core categories serve as a “guideline for describing visual documents depicting works of art, architecture, and artifacts or structures from material, popular, and folk culture” (Whiteside, 1999). The intention is for the 27 elements to work as a template for a data structure for describing visual documents. The key difference between these two data structures is that CDWA is used to catalog the work of art, where the VRA is used to catalog the art surrogate: a photograph, slide, or reproduction (Baca, 2003).

The guidelines and templates recommended by the CDWA and the VRA emphasize their nature as descriptive data structures, which can include some administrative metadata (such as copyright or conservator’s notes). These standards do have some applicability to variable media artworks. Depending on the particular work, some aspects of the art could be cataloged using the CDWA. The CDWA would work when an artwork is an intact physical object. Alternately, when all that remains of the work is a surrogate, such as a photograph, slide, or video, the standard for cataloging art surrogates, the VRA, could be used.

In both VRA and CDWA, the collected metadata relates fairly strictly to the descriptive interpretation of the object or work being cataloged. Because of this, structural information, such as how the object relates to other objects or how a work of art was constructed, is not included in either of these standards. With works that are

multi-layered, multimedia, performative, ephemeral, or variable in nature, structural metadata is essential to its documentation.

Neither VRA nor CDWA contains elements meant to document the structural aspects of a work. Therefore these data structures do not have the expansibility to incorporate information about the preservation needs of the components or the various file formats that might be used in a single work of variable media artwork. While some fields (name, title, type, etc.) could be incorporated or cross-walked into a standard for variable media art, the information about how these works of art are contained, constructed, installed, interact, and exist needs to be included. Because of the variable nature of the artwork, the differing types of documentation of the work, and the ephemeral nature of variable media art, cataloging is a challenge.

#### *Testing a Potential Solution*

To meet this challenge several institutions and individuals have developed data structures to accommodate the additional metadata needed for variable media art. These various solutions will be discussed in greater detail in the following chapter, the literature review. To briefly generalize these data structures are based on existing descriptive metadata structures and extended in various ways to include information about the complex structure of this diverse genre of art. Currently, these solutions are local to the organizations that developed them. As the CDWA and VRA core data elements are viewed as standards the question arises that perhaps there should be a standard or template for variable media art and how that standard should be chosen.



As the solutions in practice for variable media art are used at individual sites with little cross-pollination between sites, testing their applicability for widespread use would require using data from new sites to test their effectiveness in other settings. There are also proposed structures that have not been used in any setting yet, for these theoretical data structures, testing with real-world data is essential. By setting up a method for testing these data structures one is able to examine whether the suggested fields are applicable across institutions, whether the fields appropriately accommodate the data, what information is abandoned by the data structure, and how well the data structure captures the variable nature of the art. Testing also offers a window into the type of metadata institutions have collected or have the ability to collect in comparison with what the literature and suggested data structures assume.

For this type of examination a case study is an ideal way to look at both the data structure and the available information. Case study research allows the researcher to examine the variables, in this case both the data elements and the metadata itself, in context. Within this real-world setting one sees how the data structure works with the metadata at hand and from there draw preliminary conclusions. The findings made in a case study can be evaluated qualitatively and with basic quantitative measures. These findings then can inform further refinement of the tool by revealing the structure's stronger and weaker aspects. Study not only informs the use and improvement of the tested data structure, it also provides feedback for the field in general. If the tested structure does not emerge as a standard, the research provides assistance in developing

and refining the eventual standard. A further discussion of the case study as method and practice can be found in Chapter 3.

To further the discourse on metadata for variable media art, a case study was designed and conducted using the data structure Media Art Notation System (MANS) developed at the Berkeley Art Museum by Richard Rinehart and the archives of New Langton Arts in San Francisco. Further discussion of MANS is found in the following chapter and a pilot study of the archive and metadata collection practices at New Langton is found in the discussion of the methodology. To examine the interaction of the metadata and the data structure, a database developed by Richard Rinehart was used to capture information for 58 works of art from New Langton's archive. As this genre of art has been practiced for close to 40 years, using archival material would inform the practice of collecting metadata on older works as well as more contemporary works.

Once the works were recorded into the database, the records were examined for strengths, weaknesses, trends, and gaps. These findings are enumerated in Chapter 4. From these findings a set of conclusions and recommendations were developed and are offered in the final chapter.

### *Conclusion*

The twentieth century brought many changes to the practice of art-making. These changes produced art that uses elements that are difficult to document using traditional cataloging methods. Art that has multiple parts, performance aspects, and digital components that work together requires a metadata structure that provides structural information about the different components of the work. While there are data structures

specifically for art, these structures are limited to descriptive metadata. Several sites are working on creating a data structure that meets the needs of variable media art. To move forward the research in this field, testing, in the form of a case study, will reveal whether a proposed standard possesses the appropriate elements to document this genre of art, what types of documentation exist in this field, and how well the data structure and existing metadata mesh.

## Chapter 2: Literature Review

In a reflection of the art to be documented, the literature review for this case study has multiple layers. The first aspect of this review, while not exhaustive, defines what variable media art is and to examines its history and place in the world of art. From there, a review of literature from the museum perspective about the various unique aspects of variable media art is explored. This examination reveals six key points that impact the type of metadata that is gathered for this genre of art. Next, several local solutions and proposed standards are reviewed to show how different sites are approaching the same issues. The literature review then culminates in an assessment of the research gaps and outlook for the field. Once each of these layers is exposed, a foundation is laid for the case study and the factors through which we can judge its success.

### *Media in Art*

Art underwent significant changes in the 20<sup>th</sup> century, starting almost immediately with the introduction of photography (Rush, 2005). Photography allowed for specific and successive moments in time to be captured. This was only the beginning. As technology changed throughout the century, artists embraced these technologies and used them to full-effect in their works. As such the art they were producing changed from the traditional forms of painting, drawing, and sculpture to incorporate the photography, film, video, and eventually computers. Traditional art captured space, but with the introduction of technology artists could conceive of incorporating time into their works (Rush, 2005). This eventually branched out to include performative works, where often

the process of art-making was the product. Artists were no longer bound to a particular media; therefore their message became the primary product.

Further cultural and technological influences were waiting mid-century, with the rise of existentialism and a resulting focus on the immediacy of the act (Schimmel, 1999). While this was not strictly influential on art, its effect on the art world was profound and illustrated through the rise in conceptual and performance art. As Paul Schimmel writes in the catalog for “Out of Actions,” a retrospective of alternative art works from 1949-1979:

The activities, actions, and performances of artists during this period were successively realized as paintings, sculptures, and installations; objects, props, relics, photographs, films, and videotapes that documented ephemeral events; and finally in some cases nothing but the ever changing perceptions of the audience (1999, p. 17).

In this modern era, art can be created of anything or nothing. The artist is not the only participant in the creation of his work, as he may employ experts in particular technologies (Fauconnier & Frommé, 2004), involve other actors, or invite the participation of the audience (Rush, 2005). Additionally, influences can come from all corners of the planet with the advent of transcontinental travel and instantaneous communication (Schimmel, 1999). The variability of this genre of work on multiple levels demands a framework through which it can be examined. The first two questions to be addressed are why we document art and how can this alternative form of art be documented.

### *Theoretical Framework*

Art historian Jules Prown writes about the role of material culture as evidence of our past. He argues that historians often rely on the written word for historical evidence, even though there is much to be gained in the unwritten evidence that remains of other eras (Prown, 2001). In a later work he defines material culture as art, diversions (toys, games, performances), adornment (jewelry, clothing), modifications of the landscape (architectures, agriculture), applied arts (furniture), and devices (tools, instruments, machines) (Prown, 2001). Art tops Prown's list, which is ordered from aesthetic to utilitarian. Variable media art lands squarely in the category of art, but touches on each of these categories as the components of variable media art may be from any of these categories.

Prown (2001) emphasizes that, "objects created in the past are the only historical occurrences that continue to exist in the present" and that these objects offer the present day viewer the opportunity to "encounter the past at first hand; we have direct sensory experience of surviving historical events, not necessarily important events, but authentic events nonetheless." While Prown's discussions relate to the analysis of material culture, these arguments are useful in a justification for the preservation and documentation of art.

This concept becomes more difficult when working with art that is ephemeral in nature, as the work itself does not always survive. Nor is it always intended to survive. However, as art is evidence of culture there should be some documentation of its existence. Developing a data structure for variable media art would fulfill the imperative of documenting art as evidence of culture. To create a useful metadata set the unique

aspects of this art must be taken into consideration. Themes recur throughout the literature on metadata for variable media art, forming a strong framework for a data structure unique to this art. Each of these themes has implications on the long-term preservation of the art; therefore, any metadata scheme for variable media art must consider the following:

- **Artistic intent.** Art is not simply pretty pictures. Art often comments on culture, politics, technology, etc. In art that is not reliant on a particular media, the intention of the artist is the focus of the piece (Rush, 2005). To this end, it is imperative that the artist's intent is preserved (Hunter & Choudhury, 2003; Variable Media Network, n.d.). If the technology or components no longer exist to exhibit or replicate an artwork, the intent must be documented as an artifact of the work.
- **Distribution.** While traditional art forms may be the collaboration of two or more artists, the idea of "distributed authorship" is far more common in an art installation that includes multiple forms of media, whether these are digital projections or elaborate performance pieces. Dublin Core has fields for creator and contributor, but it does not specify the role of the contributor. The VRA Core and CDWA do not account for any other person in the record other than the creator. The use of creator in these structures may be repeated and qualified; however, the original intent was not to account for the multitude of roles different individuals may play in the creation of an elaborate staged multimedia artwork. It is imperative for all of the various roles that can be

taken in creating variable media art to be acknowledged (Fauconnier & Frommé, 2004; Rinehart, n.d.)

- **Ephemeral in nature.** There are no standards or requirements about what variable media artists can or cannot use in their works. With new technologies emerging on a regular basis, the array of options open to artists is expanding (Sharp, 2002). The difficulty with this is that technologies can quickly become obsolete rendering these works inaccessible. This problem is not confined to digital objects and can occur when the medium is specific to the site or the era in which it was created (e.g., local flora or a candy).
- **Heterogeneity.** While works can exist in a simple discrete form, such as a web page or videotape, variable media art often consists of several components (Hunter & Choudhury, 2003; Rinehart, n.d.). This requires room within a data structure to accommodate the various parts of the work.
- **Interactive nature of the piece.** Viewing variable media pieces can be experiential in nature. Each visitor to these mutable works will view it in a different moment and have a unique experience with the way a work of art looks. Additionally, it may be the intention of the artist for the audience to participate in the work directly (Rush, 2005). The interaction of the audience or performer with the artwork typically occurs or seems to occur at random (Fauconnier & Frommé, 2004; Hunter & Choudhury, 2003). Documentation of the levels and types of interaction assists in the preservation and re-creation of the work (Fauconnier & Frommé, 2004).



- **Preservation issues.** With multiple parts, both analog and digital, some or all ephemeral by design, preservation is big consideration with this genre of art (Fauconnier & Frommé, 2004; Hunter & Choudhury, 2003; Ippolito, 2003; Rinehart, 2000). Researchers have discussed modes of digital preservation at length (Granger, 2000; Lazinger, 2001; Rothenberg; 1999), however the artist should have input into how his work is preserved. When the work is not digital, but still composed of ephemeral components (e.g., candy) preservation is also a concern.

These concepts provide a framework that can be used to examine data structures for variable media art. It also provides the basic theory under which many of the potential metadata solutions were constructed.

#### *Metadata for Variable Media Art*

The literature relating to the specific topic of metadata for variable media art is fairly limited. Most of the literature focuses on defining the specific metadata requirements of variable media art and the development of either local or proposed standardized metadata systems to accommodate the unique aspects of the art. The resulting systems have been written about in case report style, detailing the development and results although without a structured research format. The theory in this field is inductive in nature, starting with the details of the needs for representation of this type of art and resulting in practical metadata frameworks for variable media art. To set the groundwork for future efforts in metadata for variable media art, this review includes

projects where metadata was created for alternative art even where there is little or no published literature.

### *ArtBase*

Rhizome.org is an online repository for electronic, digital, and online art. Artists submit their work for inclusion in Rhizome's ArtBase, an online database of works. Once a work is submitted, the curatorial staff reviews the work considering both its use of emerging technology and its potential historical significance (Rhizome, n.d.). The works are then either hosted by the artist as a linked object, or by the institution as a cloned object on the Rhizome server. ArtBase is searchable online and includes keywords, genre, type, locations of display, description and photo of the art, and bio of the artist.

In "Preserving the Rhizome ArtBase" (Rinehart, 2002), recommendations were made about what metadata should be kept to preserve the works documented in ArtBase. Rinehart advocates for full art and technology metadata in order to facilitate future emulation or re-creation of the work. In addition to the descriptive metadata already being used to catalog the works, Rinehart recommends capturing both administrative and technical metadata for the original works. For preservation purposes, descriptive, administrative, and technical metadata for the software and hardware set-ups for the art are also suggested (Rinehart, 2002). While this approach incorporates all three types of metadata, it seems like a patch solution that takes existing data structures and strings them together as opposed to developing a complex system that responds to this genre of art.

### *Franklin Furnace*

In 2000, the Franklin Furnace began a project to put their archives online (Franklin Furnace, 2006). The result was over 1,300 artist records that include name of the artist, event title, event type, and the start date or date of the event. Referred to as the Unwritten History Project, it also includes 26 augmented records with a “More Info” link in the entry. Clicking through yields a larger record that may include event documentation in the form of photographs, an artist statement, biography of the artist, press release, and proposal information. The project was recently funded by the NEH to publish their first ten years of records online (Franklin Furnace, 2006).

Franklin Furnace’s approach documenting variable media work was to develop several interrelated datasets. The datasets break down as follows:

- Contacts
- Terms
- Images
- Event
- Audio
- Calendar
- Publication
- Name
- Press
- Video
- Reference
- Movies

Within each interrelated database, there are several data elements that document each concept. This solution provides a complex structure that reflects the nature of the work that it is documenting; however, it is unclear how well these would relate to an established standard. The concepts also seem to be localized. To be a useful template for

other sites an in-depth analysis of the core concepts and their applicability across sites would be necessary.

### *Variable Media Initiative*

The Variable Media Network is a collaboration between several museums including the Walker Center for the Arts, the Berkeley Art Museum, the Guggenheim, Rhizome, Franklin Furnace, the Daniel Langlois Foundation for Art, Science, and Technology, and the Performance Art Festival + Archives. The VMN formed to develop preservation strategies for variable media art and to build a network to “develop the tools, methods and standards needed to implement this strategy” (Variable Media Network, n.d.).

In early 2001, the VMN introduced a questionnaire to be used by artists and curators to document details about a variable media piece at the time of its installation. The idea behind the questionnaire was to encourage artists to “define their work independently from medium so that the work can be translated once its current medium is obsolete” (Variable Media Network, n.d.). The questionnaire is a complex set of questions posed to the artist to better understand, one, what the artwork is in its current form, and, two, what the piece could be were it staged in the future (Hubbard, 2001). The aim of the questionnaire is to understand the complexities of the construction of the work while understanding both the artistic intent and the artist’s wishes about how the work could be re-staged or re-interpreted in the future.

Very little has been published or is available about how the questionnaire would be standardized or available for use. At present, only a few screen shots have been made

available in a proposal to the InterPARES 2 project. What these reveal is that the questionnaire is multi-layered with one set of questions leading to other sets of questions depending on the properties and behaviors of the artwork being described. The tool has not been made available for public use.

What has been published is the proceedings of a conference held in 2001 about the variable media art paradigm. A group of artists and curators came together at the Guggenheim and began to talk about the how to ask artists to describe their work independently from the media in which it was originally constructed (VMI, n.d.). These works are seen as having one or more of the following distinct behaviors:

- **Contained:** When a work is kept within the boundaries of its physical structure or a defined framework, the containment of the work defines its form.
- **Duplicated:** Re-staging of works that cannot be distinguished from the original—usually through digital or mass-produced components.
- **Encoded:** This refers to both electronic works in computer code and works notated in non-standard language, such as choreographed dances are included.
- **Performed:** Includes not just performance based work, but work where “process is as important as the product” (VMI, n.d.)
- **Installed:** Works where there is a complexity to its exhibition, either through multiple parts or the manner in which it is displayed.
- **Interactive:** Relates to any work, electronic or not, that has a component for the viewer to participate in the art.

- **Networked:** Any work that can be seen via computer in multiple locations either through a local network or on the Internet.
- **Reproduced:** Work that can be copied either from a master copy to another medium (tape, DVD, etc.)

By understanding the behaviors of a particular work, the intentions of the artist can be separated from the presentation. This allows for a work to be appropriately preserved or at the very least cataloged in a way that the artistic intention remains intact.

### *V2: Capturing Unstable Media*

V2, a Dutch art and technology institute, has shown electronic and other variable media artwork since 1981. The works shown at V2 are often multi-part and ephemeral in nature. V2 is not a collecting institution and the mission of the institution has been to document the works shown there. To develop an appropriate cataloging system for this work, V2 embarked on the Capturing Unstable Media project in 2003. Key to their research is the exploration of the relationship between metadata elements and the metadata itself, which allows for a flexible metadata set that can export to existing standards (Fauconnier and Frommé, 2004).

To have metadata that can inter-relate between objects, the researchers designed an ontology. This data model provides the concepts that need to be defined in the domain of digital and performative art that has shown via V2. The elements thusly do not belong to a specific record, but rather a cloud of metadata. The hierarchical structure of the ontology starts with the concept of the Entity, or the object being documented, and drills down to include elements describing the CapturedThing (the work itself), the Document

(documentation), Actor (person, persons and organizations involved), Time (dates of creation or exhibition), Genre (of the work or documentation), Interaction (levels of interaction between the art and the audience), Copyright, and Keywords. Currently operational (<http://framework.v2.nl/archive/general/default.xslt>), the Capturing Unstable Media Conceptual Model provides a complex structure that mirrors the complexities of this arena of art.

*Preservation Webservices Architecture for Newmedia and Interactive Collections*

Researchers at the University of Queensland, Australia, formed the Preservation Webservices Architecture for Newmedia and Interactive Collections (PANIC) project to look at approaches to multimedia preservation, examine data structures to increase the longevity of multimedia work, and develop guidelines for the preservation of these formats and for the capture and storage of metadata for these works (PANIC, 2005).

The culmination of this work is the Preservation Metadata Input Tool (PreMIInT), an online questionnaire that stores the digital object along with its incumbent descriptive, technical, and structural metadata. Taking cues from the Variable Media Questionnaire, PreMIInT asks that works be defined by one or more of four of the behaviors—installed, networked, encoded, and interactive. By designating the behavior of the work, the tool generates different questions about the presentation and preservation of the work. A primary focus is on the artist's intent and attitudes toward preservation. The resulting record contains specific information about the artistic intent, as well as the artist's vision of the future of this piece of art that can be used for the re-creation and preservation of the piece. All metadata input into the tool can then be output into an XML format. The

tool skillfully addresses the issues of preservation of the work, the artist's intention, and variability of the work. Unfortunately, there is no documentation of PANIC's use in a real world situation.

#### *Media Art Notation System*

Building on the work of the Variable Media Network, PANIC and V2, Richard Rinehart at the Berkeley Art Museum has developed an XML-based data structure, the Media Art Notation System (MANS). MANS offers a formalized metadata set based on the intentions of the Variable Media Questionnaire (Rick Rinehart, personal communication, May 3, 2006). It incorporates descriptive metadata via Dublin Core elements—type, date, title, measurements, subject, creator, contributor, host, identification, version, language, location, and authorization—within nine core concepts to describe the intention, components, attitudes towards preservation, and documentation in a single metadata set (Rinehart, n.d.). To accommodate the needs of an art institution's union catalog, Rinehart has provided a crosswalk from MANS to both the Dublin Core and the CDWA (Rinehart, n.d.).

To address the complexity of variable media artworks, the nine core concepts serve to document the work for the purposes of understanding the artistic intention, the process of art-making, and the limitations on its re-creation. These conceptual elements of MANS further the description of the work by allowing for several data fields within each concept. For example, within the concept of part, there are several elements can be included to describe the type, date, creator, dimensions, etc. of an individual part of a work of art. The nine core concepts native to MANS are discussed below.



*Score.* This field indicates the language that the scheme is written in and describes the documentation of the artwork not the artwork itself. MANS is expressed in a particular form of XML called the Document Item Declaration Language. This field is to be used to declare the metadata about the record itself, such as who created the record, when and why.

*Work.* The work element describes the artwork as an entity, along with all of its necessary and incumbent parts and events that lead up to or come as the result of an artwork. The intention of the WORK element is to include a description of the artwork as a whole. While the term work is often associated with a specific, discrete artwork, the term is “used here with the intent to claim the term and expand the definition of what an artwork can be” (Rinehart, n.d.).

*Descriptor.* Included here would be the documentation used to describe the work, both as a whole and on a very minute level. Descriptors would not be parts of the work, but that which describes the work and provides it context such as photographs, video, or other descriptive material of the work.

*Version.* The dynamism of variable media artwork means that each staging of a work may be different from the original, previous, or future stagings. The VERSION concept, at a minimum, should describe the current or most recent incarnation of the work. A description of future versions could be helpful in the restaging and preservation of the work.

*Part & Resource.* These two concepts are separate, yet related. Therefore it is important to define their differences upfront. The PART concept refers to a logical

component of the entire work, but does not necessarily represent a physical entity. A RESOURCE is a “discrete, fixed, or tangible expression of a Part of the work” (Rinehart, n.d.). An installation that consists of a computer program controlled remotely via the Internet with the results displayed in an art gallery would have parts such as “remotely controlled program,” “public display,” and “participants.” The resources would be the precise computer program, computer, and display mechanism. These two elements would work together to present possibilities for preservation of the work, re-creation via migration of the materials, emulation of the original program, or re-staging of the installation. The PARTS and RESOURCES could further be documented using the DESCRIPTOR element.

*Choice.* The CHOICE core concept documents the allowable agents for making changes and decisions about the works, as well as the level of change that is acceptable to the artist. The element can be repeated for the entire work or for parts of the work. Restrictions can be set by the artist (highest restriction), an agent or contributor (very restrictive), host/owner (restrictive), presenter (open), or the audience (most open)

*Condition.* This element marks parts of the work that may be removed based on the authority of an agent of the work (the artist or a person designated by the artist). These further define the choices as made by the artist.

*Annotation.* This element allows for notes about the work, not included in the other elements. This may be a place for temporary discussion about the work and is not necessarily intended to be a permanent part of the record.

The metadata generated by these core concepts would offer information about the documentation of the work, the conceptual and specific elements of the work, and how willing the artist is to have the work altered in the future.

While the Variable Media Questionnaire and PreMIInt require the input of both the artist and the curator at the time of collection, one of the intentions behind MANS is to be able to create record based on archival documentation. This can be useful for works from the early era of alternative art, where the artist may no longer be living (Rick Rinehart, personal communication, May 3, 2006). MANS drills down to the essential core concepts that can be applicable across sites. By reviewing other existing and proposed data structures, Rinehart has created a data structure that attempts to answer the issues of locality, flexibility, and structure.

#### *Outlook for the Field*

Since the turn of the century, the media used in art has been expanding with the notion of what art is. Likewise the materials used in artwork will continue to change as technologies emerge and are used in art. Appropriate documentation is essential to the long-term preservation of not only the work, but also the artistic intention behind the work. While this has long been the domain of the art curator, an information science perspective would add another dimension to how works should be documented. Information science has worked with all types of media—audio/visual, archives, books, digital resources, web—each of these media can be present in a variable media artwork. LIS has data structures that document the tangible and the intangible an idea that that is core to this type of art.

### *Research Gaps*

The writing in this field has laid the groundwork for more formalized research by developing a framework for the unique characteristics of variable media art. Yet none of the data structures have been observed through the prism of these defined attributes. In all cases where the metadata has been put into use it has only been within the institutions in which they were developed. By testing any of the schemes on outside collections, additional aspects of and issues around the art will be brought to light. Another area that could be explored is with archival material. Artists have been creating in this genre for over 40 years therefore a bulk of the work to be cataloged will have to be reconstructed with archival documentation.

A brief examination of the current catalogs for variable media art also illuminates another interesting issue: what is exactly being cataloged. Often times, the record will reflect a specific work or installation. Other times the record is documenting an event as part of a larger installation. And still other documentation is of the documentation (photos, film, video) of the actual work. By looking at a specific institution's holdings in depth, the question of what is being documented can be explored in greater depth.

### Chapter 3: Methodology

Context is essential in the understanding of variable media art. Context is also essential in studying metadata for variable media art. While it is possible that a structured experiment might work to compare the three metadata solutions provided by PANIC, the CMCM, and MANS, the nascent theory in this area of study has yet to be tested in any format. Robert Yin (2002) states, “An experiment, for instance, deliberately divorces a phenomenon from its context, so that attention can be focused on only a few variables.” To understand how metadata bests documents this genre of art, the context cannot be separated from the task at hand. Practice and feedback are essential in creating a usable metadata structure for variable media art. It should also be emphasized that case studies are not merely the first step in a research process, but are rigorous in their own right for the development of theory (Yin, 2002). Therefore, to understand how the unique aspects of this art are being met through a metadata standard, the best research method is case study as this provides a lens through which we can understand the relationship between the metadata and the data structure.

The case study in Library and Information Science is an unusual model. A typical case study focuses on an element of human interaction. While LIS case studies often involve people as users of the system, either as librarians or patrons, there is also the LIS case study that looks at the intersection of information and process. Instead of studying behavior, these case studies observe how information fits into specific structures. These case studies also look at how information-bearing items are interpreted by users, catalogers, archivists, etc. Additionally, LIS case studies aim to discern patterns in

information systems. In this case study, there is an examination of the intersection of information and process by looking at how information fits into a prescribed data structure.

Currently, there are several sites around the country and other parts of the world that hold documentation about alternative forms of art. The current metadata standards for art appear to be insufficient. Therefore there is room for a new standard to emerge, if not as an entirely new standard then as an extension of an existing data structure. The main purpose of this case study was to determine how well a data structure meets the documentation needs of variable media art in a real-world setting. As this is a field of art that has been in museums and galleries for close to forty years, much cataloging across the field will have to take place retroactively. Bearing this in mind, it was important to test a metadata tool for its flexibility for archival information. The secondary purpose was to examine if this ephemeral art form truly necessitates a more rigorous level of documentation.

#### *Primary Research Questions*

- Can the characteristics of this art—artistic intent, distribution, heterogeneity, ephemeral nature, interactivity, and preservation—be documented in a standardized metadata scheme?
- What is being cataloged, the art or that which documents the art? Is it a combination of these two things and if so, what does this metadata set represent? Is it an archive, a catalog, or something more?

- Can a metadata scheme document both artwork and its incumbent documentation?
- Using a standardized scheme for variable media art, can this art be documented retrospectively using archival materials?

#### *Secondary Research Questions*

- Do we need to document variable media art with a more extensive standard than the established art data structures?
- Could a current metadata standard be used to document variable media art?

#### *Unit of Analysis*

For this case study the unit of analysis was the MANS metadata standard. MANS was developed by Richard Rinehart at the Berkeley Art Museum after an examination of the other proposed structures. MANS has not been tested in a real world situation, therefore this study serves to provide feedback for its refinement. By cataloging variable media artworks in MANS, a qualitative examination of how well the core concepts and elements document the artwork can be observed. Some other observable qualitative measures are whether or not the finished records reflect the unique attributes of the art form, and general reaction from potential users, in this case gallery staff and volunteers, of how the well the data structure works. Additionally, basic quantitative measures can also be observed, such as how often each of the core concepts is used.

#### *Case Study Site: Pilot Assessment*

For this case study, it is imperative to have a site that has exhibited variable media art, that has a history of keeping documentation of the work, and that is interested in

creating a catalog of the work that they have shown. New Langton Arts in San Francisco currently has an extensive archive of documentation of the thousands of works that have shown in their gallery for over thirty years. In addition to photographs and written documentation, they have three databases documenting the works; none of which conforms to a metadata standard. Their role in the early years of this art movement makes them a key site for testing a standardized catalog. This, along with the presence of documentation and early attempts at creating a catalog database, makes New Langton an ideal site for this study.

To explore the suitability of New Langton as a test site a pilot assessment was made of their history (see Introduction), archives and the databases currently in use.

#### *Archival Holdings*

To fulfill their mission of documenting all works shown at Langton, staff has kept extensive records over the years. These include:

*Administrative archive.* All documents relating to the programmatic and fundraising aspects of New Langton are kept in file cabinets and boxes in a loft in back of the theater on the ground floor of the Langton Building. These documents are divided into a few categories:

- **Program files (sometimes called Artist files):** These make up a bulk of the files that Langton has kept and are primarily files relating to individual programs held in the gallery. Most files are marked with the name of the artist, the medium, and the dates of the exhibition. Any items related to the show are in this folder.

Examples of what can be found in these folders include: show announcements,



press releases, letters, resumes, notes, photographs, reviews, flyers, programs, videos, original proposals for work, progress reports, diagrams, and scripts for performances. The program files are in three large file cabinets and in dozens of bankers' boxes located a loft above their theater space.

- **Auction:** These boxes contain files about Langton's annual fundraising auction.
- **Curatorial:** These files relate to an awards program New Langton sponsored in the 1990s. Each folder contains resumes of the awardees.
- **Development:** All materials relating to grant writing and other fundraising activities other than the auction.
- **Press:** These files have press releases and documentation of press coverage of events at New Langton.
- **Show announcements:** Files contain announcements, flyers and programs from shows.

The arrangement of these files and folders has shifted over time. Early on all documentation was kept together chronologically. Each year there are files for fundraising in the same cabinet with files about each artist/show. Therefore, an artist who performed in the gallery would have a single folder with all of the documentation (with the exception of photo documentation) in one folder. Over the years the arrangement shifted so that like items were separated from the artist folder. During these periods, there are files for show announcements, press releases, etc., which keep similar types of documentation together, divorced of their original context where the documentation relates to a specific event and/or person.

*Photo archive.* The photos, slides and/or proof sheets of installations from the 30 years of New Langton's exhibitions are kept in folders separate from the artist/program files. The files are arranged chronologically in descending order, and within the year by the name of the artist. Each folder is labeled with the name of the artist(s), name of the piece, the type of work (visual art, performance, music, etc.), and date. The folders contain only photo documentation of the work, usually a photograph and sometimes negatives and/or slides. The photos and proof sheets are mostly black and white, while the slides are typically in color. The photos may be documentation the artwork, stills from performances, an artist portrait, or of the audience at performance, opening, or installation. Some photos have descriptions, photo credits, and names of the work/artist on the back, although most do not.

*Publication archive.* Langton keeps copies of publications that they produce and distribute. These publications include catalogs, announcements of shows, calendars, calls for artist proposals, and materials related to their annual art auction. Copies of each of these are kept in file folders and arranged by date. In addition to the catalogs that are kept in the file cabinets, there is a small closet on the lower floor of the gallery building where boxes of catalogs are kept. These non-archival boxes are numbered, dated, and arranged chronologically.

*Audio/Visual archive.* Videos of various types (VHS, 3/4") in their original packaging are kept in a closet in the upstairs of the gallery. They are partially arranged by year on five shelves, three of which are covered with a plastic sheath. The videos are both artist videos, essentially the actual work of art, and recordings of performances.

Langton also audio records literary events that take place in the gallery. Through the 1980s these recordings were made on audiocassette, then Langton switched to DAT for recording. The audiocassettes are kept in flat cardboard boxes and the DAT recordings are kept on shelves. The closet also holds Zip disk back-ups, posters stored in tubes, and scripts detailing performances/installations.

### *Metadata Tracking*

Langton has three ways of tracking metadata, a program database for documenting the staging of events and installations at the gallery, a database of shows and events available to the public online, and a database developed recently to aggregate information about their archival documents.

*Program database.* The curatorial and programming staff updates the program database. It is used to maintain a list of artists, shows, and descriptions of the works that are shown at New Langton Arts. The database is an incomplete listing of the works, performances and events from the gallery's history. There are entries for events back into the 1980s, but most entries are from the early 2000s. The fields are not based on any standard art or archive metadata structure, although some fields could be easily cross-walked into fields of Dublin Core, VRA or CDWA. The fields are as follows:

- Title
- Dates
- Artist
- Curator
- Description
- Biography (of the artist)
- Image (attached)
- Funder credits (list of financial sponsors for the show)
- Related documentation (photos, catalogues, etc.)

Of the 219 records in the programming database, approximately 25 percent of the records are from 1976-2007. The majority of the records represent shows, works, and events from 2002 to the present.

*Online database.* Under the Events section of the Langton website, there is a link to archived events. The events archive offers links for the years from 1969 to 2006, but there are only events starting in 2002. Within each year, a list of events is available that can be explored for further information. The entry for an event, which might be a show, a performance, an opening, a piece of net art, or a fundraising event in the gallery, may have all or some of the following:

- Name of the show
- Artist or artists
- Dates
- Date of the opening
- Curatorial description of the show
- Artist
- Link to the online work
- Artist(s) biography(ies)

The information in this database is very limited both in terms of scope and content. Each entry appears similar to a show announcement or a gallery brochure.

*Archive database.* The archive database was developed recently as a way to gather ideas for future shows, while also documenting the history of the organization. By creating the database, staff was hoping to find a way to look for specific shows, make connections between the gallery's past and present, discover what was missing in terms of documentation, and be able to track artists with a history with the gallery (María del Carmen Carrón, personal communication, October 20, 2005). The result is a database

that follows no metadata standard for archives or the arts, although logical overlaps

occur. The fields are:

- Name (of artist)
- Title of work
- Title of show
- Group exhibition (yes/no)
- Year produced (if known)
- Year shown (mo/year)
- Langton code (VA visual art, VI video, LI literature, MU music, PF performance)
- Type (of documentation, e.g., slides)
- Type of work (This does not appear to be a controlled field, but includes terms such as sculpture, painting, etc.)
- Related program (This is an internal, curatorial connection.)
- Resource (What printed material, if any exist, relates to it?)
- Condition (of the documentation)
- Copyright (Reads: By the Artist. This often refers to the documentation, not necessarily the artwork itself)
- Photo credit (for the photos in the file)
- Artist photo (yes/no)
- Audience photo (yes/no)
- Description of the program (yes/no—this information exists in the program database)
- Notes (free text)
- Archive code (auto generated number when the record is created)
- Video archive reference # (refers to a number assigned to any video documentation)

The archive database is currently being used for two purposes. The first is the original purpose of cataloging the documentation Langton has kept over the years. These records are specifically of the photographic and audio/video recordings and make up 1800 of the 4358 records in the database. The remaining 2558 records create a list of alumni artist, who have shown their work at Langton. This was done using three fields added later: alumni artist name, last name, and date shown.

The archive database is the most complete in terms of the breadth of the included fields; however, it would take a conglomeration of all the information in the various

databases to provide even a basic record of each work shown at Langton. Ignoring the multimedia aspect to this work and using a more traditional metadata scheme for art like VRA or CDWA, the information included in these databases would still be incomplete. Some key fields that are missing are materials, size, subject, period, and location. The works shown at New Langton are alternative in form and nature. In order to best describe it for preservation, research, and re-creation purposes the metadata for these works should be more in-depth. The elements of the work should be described in detail for re-creation, information about documentation of the work should be included in the records, and information about the intent and vision of the artist should be included.

#### *Future of the New Langton Archives*

New Langton is an institution with a strong sense of memory. Over the years, the programming and curatorial staff has made sure that vestiges of the art shown in the gallery have been kept. So far these items have not been ravaged by time. Publications and photographs all appear to be in good condition. Some copies are marked with a sticker reminding the user to return the item to the file, as it is the archival copy, possibly degrading its value as an archival object. It is not readily apparent that the file folders are acid-free archival folders. For the video, audio, and digital objects, it is not clear whether or not they are in a usable format. Because of the rates at which magnetic media degrades, Langton staff is hesitant to play the early video and audio recordings for fear that they may not have proper integrity to survive play. To this end, Langton would benefit from re-housing their print and photographic materials and a reformatting of all of

their audio-visual materials. The Zip drives should be examined for use and possibly transferred to another more accessible medium, such as gold CD.

In many cases documentation is all that remains of these works. With art that relies on its temporal nature, is made up of multiple parts, or is performance-based, nothing may remain after exhibition. This is not because the work has been absorbed into someone's collection, but because it was disassembled or did not have a physical form to begin with. While some of these works are sold and become part of permanent collections (although this is not documented in the metadata kept at Langton), others are taken down and there is no knowledge of what happens to it. This would suggest that without a permanence of form, the work deserves a permanent and extensive record of its existence.

Langton's recordkeeping tradition extends into their metadata practices. The metadata they keep relates to their internal needs. The programming/curatorial database has been in use longer and most likely is a better reflection of the art at the time of installation. The online database offers an online announcement of the show. The archive database, created to document the files in the photo documentation files, is a more extensive metadata set. On the downside, it is being created retrospectively and exclusively from the artist/program files.

Conceptual art and variable media artwork is reliant on context for meaning. While the amount of metadata included in these databases could be useful when aggregated, even aggregated as a whole they lack context. The Langton databases contain good information about the works they have shown, but key aspects of the work

are left out. If a work had a component of audience participation, if it required sound, or if it was essential for the work to be displayed in a certain way, it is rarely noted in the databases. These elements are important to the understanding of the work as a whole. Without this information these works lack the context in which they were created, shown, and viewed.

Although they have remained true to their original intention to document all events and works sponsored by New Langton, the physical arrangement and metadata practices do not offer a complete picture of the work as it was shown and/or performed. A full record of a work is important if the gallery or an outside institution were interested in staging a retrospective of an artist or an era of work. As Langton continues to be an important venue for alternative art forms, they would also like to be a resource for researchers and academics in this field (Jennifer McCabe, personal communication, September 1, 2005). Preserving as much primary information as possible would make Langton a center for information on these works, artists, and genres of art.

As New Langton is not a collecting institution, another consideration arises—how much and what kind of metadata should they keep. Should their metadata relate more to the documentation that they keep in their archives or to the artwork itself? Unlike a traditional museum, artwork shown in their gallery does not become part of a permanent collection at New Langton. Their archives and documentation databases are more typical of an art library, which are largely repositories for slides of works and monographs. Currently, the metadata being kept and created relates mostly to the documentation and not to the artwork. Continuing in this direction follows the logic that since they do not



possess the piece, there is no reason to document its existence except in the moment that it was in the gallery.

### *Case Study Questions*

A set of questions was developed to frame the case study. While these questions reflect the larger research questions, these questions supported the line of inquiry for the research and keep the research on track. During data collection these questions focused on two levels as specified by Yin (2002)—questions that reflect on the cataloging done during the case study and questions about the case study in general. Question relating to the practice of the case study included:

- Are there elements that require further refinement?
- Do the elements correspond with the elements of the art?
- Do they meet the needs of the case study site, New Langton?
- Are there aspects of the art that are not captured by either MANS or the conceptual model of the unique characteristics—artistic intent, distribution, heterogeneity, ephemeral nature, interactivity, and preservation?

Later questions help guide reflection on the case study and assist in developing the conclusion and recommendations. These ask about the entirety of the study, including the literature review, and policy recommendations. These included:

- How well do the MANS categories support the art?
- Are there aspects of the art that go undocumented in MANS?
- What changes or additions should be made to MANS?
- Are there other aspects of variable media art that should be considered in the

conceptual model?

- How do we handle the documentation of the documentation of this art form?

### *Data Collection Methods*

This study employed three modes of data collection:

#### *Archival Records and Documentation*

Using the databases that New Langton has already created, an attempt was made to cross-walk the information into a database reflecting the core concepts of MANS. In this new format, the information was then reviewed to see how well it fit into this standard, how well the six key concepts were represented, if there was data that was “abandoned” from the original database, and what fields were not used when transferring from the other databases.

When the data was transferred from the Langton databases to the MANS database, the information, though useful, only populated one section of the dataset. While this information provided good basic information about works, such as the artist, title, date, and to some extent medium, this information did not reflect the complexity of the work. A simple data transfer illustrated whether or not existing data could be cross-walked; however, it did not offer the experience of cataloging work from archival materials. In order to understand how MANS should work in documenting this art, it was important to have more than the basic metadata. To achieve this original cataloging was necessary.

### *Participant/Observer*

To properly observe how MANS functions with real-world information approximately 55 works were cataloged incorporating any transferred data. The sample broke down as follows: Five records from every fifth year from 1975 to 2000 (30 records) and five records from each year from 2002 to 2006 (25 records).

The role of the participant observer was to catalog the items while making observations about how the system works. Ultimately, this was more illustrative as it required that all information about a work be examined and included. This was essential to the process in order to address the research questions. Also Langton is not the only institution where cataloging from the archives will be necessary, therefore cataloging into MANS from archives tests the feasibility of both the system and the process.

The media represented in the art shown at Langton varies greatly from show to show and artist to artist. While many works were ephemeral in nature, there were also more traditional works (drawing, painting, photography), large-scale works, and performance works. In choosing the sampled works careful attention was paid to representing the various media. This was important as Langton has and will continue to be a venue for these various media, therefore their catalog should be able to accommodate all types of works. In addition to records for visual art works shown at Langton, cataloging records made for performance art, musical performances, and literary events.

Additionally, the show configurations were also a consideration for constructing metadata for this type of work. When showing visual art, Langton has had various types

of exhibitions. Historically there have been shows featuring new works by a single artist, retrospectives of an artist, and curated shows that included several artists in a particular genre or working on a similar theme. Because some of these works were shown in context of other works or a particular theme, it was beneficial to have fewer restrictions on the way the dataset could be interpreted.

No specific guidelines for the cataloging process were established before the cataloging process commenced. The main reason behind this was to test the flexibility of the dataset in accommodating various types of artwork, different configurations of exhibitions, and different types of documentation. To this end, the core concepts and elements were populated in different ways to test the limits of MANS while exploring possibilities for refining the data structure.

The other consideration for flexibility was the variety of documents that were used in the cataloging process including:

- Artists biographies
- Proposal for the work
- Examples of other work
- Exhibition checklist of pieces in a show or items used in specific pieces
- Photographs of the show or work
- Exhibition program describing the show and/or work in a show
- Budgets for exhibitions
- Curatorial statements
- Correspondence between persons involved in the show such as the artist, curator, and Langton staff
- Newspaper articles and other clippings related to the show, piece, or artist
- Shipping manifests
- Show catalogs (formal publications about shows)
- Gallery guides (small publications to guide visitors through a particular show)

To prescribe that data from a certain source should always populate specific fields would limit the information included in the dataset. Ultimately, a very loose set of guidelines allowed for experimentation of how MANS could best accommodate the data.

#### *User Feedback*

After cataloging items using MANS, feedback was compiled to assess the strengths and weaknesses of the system. This feedback reflects not only the usability of MANS, but also provides insight into the metadata requirements for variable media art and the metadata needs of the institutions that exhibit this type of art.

#### *Quality Assurance*

To assure a high standard of testing in this case study the following protocols have been observed:

#### *Pilot Inquiry*

Unlike an experiment or a survey, a pilot inquiry for a case study “can be much broader and less focused than the ultimate data collection plan” (Yin, 2002). The purpose of case studies is to observe interactions in a real-life setting, so controls and precise instruments are not the priority. Rather, a pilot inquiry looks for the suitability of a site and unit of study. For this case study, an assessment of the documentation and archives of New Langton was done and discussed above. Through the literature review, MANS was chosen as the unit of analysis.

#### *Criteria for Testing Research Design*

For this case study, criteria were established that test the validity of the case study. The three appropriate modes of testing for this case study are:

- Construct validity. This entailed constructing a conceptual model for the requirements of a metadata scheme for variable media art (see Literature Review) and demonstrating how MANS meets these criteria.
- External validity. This required developing a case study that could be generalized to other similar institutions (Yin, 2002).
- Reliability. To create reliability, the procedures followed in this case study were documented in order to facilitate replication (Yin, 2002).

## Chapter 4: Findings

In cataloging works and shows from the New Langton Arts archives a world of information opened up. The purpose of this study was to examine how well MANS' descriptions meet the needs of the art and whether or not we can catalog these works using archival material. This case study revealed insights about the use of the fields in the dataset, the structure of MANS, and the ability of the dataset to document variable media art from archival material. Also, unexpectedly, the cataloging process illuminated factors not considered at the outset of this project, such as how well this dataset meets the needs of the institutions that exhibited the art and what elements might be useful for the staff that work there.

The following is an assessment of the 58 scores that were created using archival documentation from the New Langton archive. Within the 58 scores, 411 core concept records were created. These are enumerated in Table 4.1.

Table 4.1

<i>Record Creation</i>		
Core Concept	Definition	Number of records
Work	Describes the work as an independent entity	71
Version	Describes the work in its current incarnation	60
Part	Describes the logical component of a work	163
Resource	Describes the tangible component of a work	117

Within each core concept and elements of the core concepts, there were many findings and observations. To lay the groundwork for the research questions, each core concept and its incumbent elements will be discussed separately. The discussion of each core concept is broken down into two distinct sections, findings and observations. With

this background material in place the second half of this chapter will address of the following research questions:

- Can the characteristics of this art— artistic intent, distribution, heterogeneity, ephemeral nature, interactivity, and preservation— be documented in a standardized metadata scheme?
- What is being cataloged, the art or that which documents the art? Is it a combination of these two things and if so, what does this metadata set represent? Is it an archive, a catalog, or something more?
- Can a metadata scheme document both artwork and its incumbent documentation?
- Using a standardized scheme for variable media art, can this art be documented retrospectively using archival materials?
- Do we need to document variable media art with a more extensive standard than the established art data structures?
- Could a current metadata standard be used to document variable media art?

#### *Use of MANS*

The structure of MANS consists of nine core concepts as described in the literature review. Within the nine core concepts are fields modeled on the Dublin Core Metadata Elements. These elements are meant to provide complete information for each core concept. Together the core concepts offer a data structure to describe variable media art. No limitations beyond the instruction set forth in the MANS documentation were put on the cataloging process. Both because of and despite this, several findings were made



about the construction of the core concepts and use of fields within MANS. To present the findings on the way that MANS was used during this case study each core concept will be reviewed.

### *Score*

The SCORE core concept provides metadata about the creation of the record. It contains fields for the name of the record creator, the date on which the record was created, the name for the score itself, a descriptor for the score, and a field for annotation of the score.

The name of the record creator and the date were simple to consistently populate. In the descriptor field the following note was entered in each record: "This score was created as part of a case study for the use of archival material to describe media art." The title field is described in detail below. The annotation field was not used in this study; however, there is a discussion of possible uses in the observations section.

The SCORE core concept is administrative metadata about the record itself; therefore the naming of the SCORE is different from the title of the work that it is tied to. Four logical methods for naming the score were revealed by the study: the name of an individual work of art (e.g., Local Trash score), the name of an individual work in a larger show containing multiple artists (e.g., Sergio de la Torre: Five Habitats score), the name of a show with multiple works or a single work or performance by a single artist (e.g., Domestic Landscapes score), and the name of the artist (e.g., Vanalyn Green Score). For single works that are part of larger shows, the decision must be made as to whether the field should be used for the title of the work, or the title of the show, or some

combination of both. Shows are not always named, and in cases where all the works within the show are by a single artist, the name of the artist is an appropriate name substitute. Finally, literary events, music events, video performances, residencies, and retrospectives often are named for the artist or have no name assigned; in these cases, the artist's name was assigned to the title field.

To test the possibilities, the score names for the 58 records created were distributed as follows:

Table 4.2

<i>Score Breakdown</i>		
Score name	Score describes	Number
Work title + "score"	Individual work	21
Work title/artists name: Name of show + "score"	Individual work within a larger show	6
Name of show + "score"	Performance or show by a single artist with multiple works with a show name	13
Name of artist + "score"	Performance, event, or multiple visual art pieces by a single artist without a show name	12

*Observations on the Implementation of SCORE*

SCORE is the container for the who, why, when, and how of the creation of the record. Curators and gallery administrators may not see the importance of this core concept; the general reaction of the Langton staff was that this information was unimportant, in effect "archiving the archivist." While this is essentially true, it does document the context under which the record was created. Context can deeply impact the record itself and if future users can understand the context under which the records were created they will better understand the art.

While the name and date were unproblematic, standardized formats should be developed for these elements. If some names are entered in natural order where others are entered last name first, then retrieval is impaired. The same is true of dates, which can be entered in various ways both spelled out and numerically represented. How the format is standardized is less important than the act of standardization.

The alternatives for how the name of the score is chosen indicates the need for a rule about how to generate the name, as it would make searching score names more useful. If left to the individual cataloger, the name of the score will be unpredictable, causing problems in searching and identification. The database will function better as an historical record if the fields are used predictably. The variable nature of this genre of art increases both the difficulty of and the need for consistency. The recommendation is for the SCORE title element to include the name of the individual work, with the larger whole of which it is part—the show or performance—recorded in the descriptor field.

When this field is used for the name of the show, the SCORE then serves as administrative data for the individual works; for instance, a showing of Ryan Junell's video works was recorded on the SCORE level, and under that score there are eight records for eight individual works. Since the intent of SCORE is to provide administrative data for a single work, it does not work well as a container for all of the works within a single show. If SCORE were to be used consistently for an entire show, then an intermediary level providing metadata about the show as an entity would be needed.

The descriptor field was used in the case study as a place to notate the reason or circumstances under which the record was created. This information might have been better placed in the annotation field. The annotation field could have several uses in keeping notes on the score as it evolves over time. In a field study such as this, the element could be used to take notes on the process. In the case of use in a gallery, specific notes could be made about the circumstances under which the score was being written. For instance, whether the score was made at the time of the showing in the gallery or it was constructed from archival material is key to interpreting the metadata provided.

The descriptor element could then be used to describe the circumstances of the score. An example might be, “This is a score for one of the two installations of the Cultural Attaché show staged in January – March, 1995. There were two artists involved in this show Jayce Salloum and Yasmina Bouziane. This score describes Salloum’s work.”

#### *Work and Version*

The core concepts of WORK and VERSION are nearly identical in terms of the descriptive elements that can be used to create the full picture of the work or version of a work of art. The logical difference between these concepts is that the WORK concept defines the static, as much as a media artwork can be static, presentation of the work. WORK, therefore is how the piece exists as a singular work of art. VERSION defines the presentation of the work in the setting being described. A work may have been created in 1994 and that work could be described on its own, then when it was shown at

New Langton certain aspects of the piece might be altered such the replacement of certain components. This second incarnation is what should be described in the VERSION core concept.

The descriptive elements are used in basically the same ways for both work and version, but the nuances often made for tough decisions in terms of what descriptive metadata went under what core element. For the most part, Langton's documentation reflects the work as it was shown at Langton. This would indicate that only the VERSION core concept should be used, even though in most cases information about the work level could be inferred from the documentation. Given that these concepts are similar, the descriptive metadata included in each concept is explored in tandem. The WORK and VERSION are analyzed field by field followed by observations and recommendation based on the case study.

*Type.* Type is used to define the genre or form the new media art takes. The recommendation for this field is to use the genre descriptions developed by the Variable Media Network: contained, installed, performed, reproduced, duplicated, encoded, and networked (Rinehart, n.d.). While these descriptors are reasonable choices for describing the artwork in terms of its behaviors, the terms already in use at Langton were used. Most works could be described using the original terms as marked on Langton's files—installation, video, digital, performance, literary, and music—were used. Some works were more complex and required multiple types (e.g., video installation)

*Date.* The recommendation for the use of the date field is to use the earliest date of creation or occurrence (Rinehart, n.d.). Under the work core concept this makes sense

as it is documenting the creation of the work. However, the documentation did not always provide the date of creation. In these cases, the options were to leave the date field empty or to substitute the date shown. As the dates in the archival material reflect a span of dates for a show (e.g., January 17-March 2, 1996), the recommendation to use the earliest given date was ignored in favor of providing more specific information about the work as it existed in the gallery.

*Title.* This field is one of the most straightforward asking for the title of the artwork. This was typically entered as found, although in the VERSION core concept the name of the place where the work was shown (e.g., Passionate Attitudes: New Langton) or the show that it was a part of (e.g., Pete Nelson: Five Habitats) was also included.

*Measurement.* This field gives the dimensions, length of time, or file size of the work. This descriptive element was used for 21 of the 71 work records, whereas it is only used in nine of the 61 version records. In these combined 30 instances of use, a physical measurement is given ten times, a narrative measurement (i.e., variable) is offered ten times, and a length of time is used ten times.

*Subject.* The subject element is to be used to provide intellectual access to the work. The description provided by Rinehart (n.d.) details that subject can cover “that which is depicted” and can include concepts, places, and people. An attempt was made to include subject in the WORK core concept. However, understanding a work is dependent on the intention of the artists and the context under which it is shown, which makes it easy for a cataloger to make assumptions about subjects. Without an

understanding of the artist's intent and no previously determined controlled vocabulary, there was no consistent way of assigning subject headings.

*Creator.* Like the title of the work, this field is easy to populate and is present in all of the archival documentation. During the case study it became apparent that artists often show multiple times at Langton, and most likely at other similar venues. Currently, there is no practice of standardizing the input of the creator's name. All names appear in natural language form.

*Contributor.* Although it is not always used, this field is essential in a catalog for variable media art. Works of complex nature, such as multimedia or performance works, often require more than a single person to execute an idea. At Langton specifically, the curator often plays a key role in the staging of shows. Therefore, the contributor field when populated provides additional information about who else was involved in an artwork.

*Host and Location.* Host, as defined in the documentation for MANS, was described as metadata about the "owner" of the work, not the temporary host of the work. Location should describe the current location of the work whether this location is a place (Berkeley or San Francisco Museum of Modern Art) or a means of storage (a compact disc or a URL). Because their location after they leave New Langton is not known these fields were rarely used in this field study. There are some instances where the host is defined as New Langton Arts (or 80 Langton, the original gallery name) even though the gallery did not own the work to experiment with extending the definition of "host" to

include temporary hosts of the work. The location element was used sporadically to indicate a URL or specific location for a work either inside or outside the gallery.

*Identification.* An identification number was assigned to each work that was a combination of a two letter code referring to the type of art (video, visual art, music), the 4-digit year in which it was shown, and the first three letters of the artist's last name. An example for the visual artwork of Tom Gehring shown in 1976 would be VA1976Geh. This would be simple to implement. The anomaly to this was in instances where a single artist had multiple pieces in a single show. In these cases, two digit sequential numbers were put after the artist last name.

*Language.* This descriptive element is meant only to apply to anything in spoken or written language and should not apply to computer programming (Rinehart, n.d.). For the most part this field was not used, except when the language of the work was not English.

*Authorization.* The guidance given for authorization is broad, including anything from a statement of rights to linking "mechanisms for verifying the authenticity of the Work such as watermarks or checksums for digital Parts" (Rinehart, n.d.). For the purposes of this case study this element was in all cases used to give a statement that all rights were given to the artist. With only the archival material available it was not possible to give information beyond a basic statement of rights.



## *Observations on the Implementation of WORK and VERSION*

There are recurring themes in the observations about the WORK and VERSION core concepts, but first some observations can be made on the individual fields within the concepts.

*Type.* Instead of using the recommended terminology, the site terminology was used in the type element. Because this field is repeatable, the best solution to this would be to use the recommended, and hopefully at some point universalized, terms and locally controlled terms that are useful for the site. Until these terms are universally used, a local defined vocabulary would be sufficient.

*Date.* For the WORK core concept date, the date of creation was used when given. Otherwise, the year the work was shown was used. In these instances it might have been better to have no date, as the year it was shown was not necessarily the year it was created. When a date is given, it is important to use a consistent format of either spelling out the date or representing it numerically.

*Measurement.* The breakdown of how the measurement field is used shows that there are different ways to interpret the concept of measurement. Also, that a measurement is only given 23% of the time speaks to the difficulty in finding this information in the archival documentation. For more effective use of this element, a set of rules defining what measurements are allowable should be developed.

*Subject.* Subject cataloging may not be appropriate for variable media art, as it can be easy to misinterpret meaning. This can give rise to problems later, since future users could interpret it as intention or context even though the information did not come

from the artist. A best practice for the subject element would be to assign subjects based only on objects in the work or the genre of art and not on the subject of the work. Given that, it would be beneficial to have an authority record or thesaurus to use for guidance on creating subjects. If institutions could agree to use a commonly used thesaurus like the Art & Architecture Thesaurus or the Library of Congress Thesaurus for Graphic Materials the cataloging would be the most useful. At the very least a locally controlled thesaurus would provide better access to work than randomly assigned keywords.

*Creator.* For searching and identification, there is a need for consistency in the creator. As suggested in the SCORE core concept, this would start with choosing a consistent name format (natural language vs. last name first). An authority record should also be created for artists' names.

*Contributor.* This field is very useful in variable media art. To make this field more effective, there should be the ability to modify the contributor with the role that they played—musician, programmer, cinematographer, curator, performer, etc. Control would also be useful in this field both in terms of an authority list and a consistent way of writing the name (i.e., natural language vs. last name first).

*Host and Location.* Because Langton does not own the works that they show, neither field was abundantly useful for their purposes. Based on this observation, one option would be simply not to use these fields.

The other option would be to broaden the definitions of these fields for implementation. As much of this work is not necessarily owned by anyone, the host information will not yield much useful information and may be assumed to be the creator

of the work. If there is an owner this information is changeable and it is not the role of Langton or any other small institution to keep track of this information. If host could be expanded to include temporary host, then New Langton or 80 Langton and any partners could be listed as such. The location of a work is not necessarily to be assumed as at Langton. Therefore, it would be useful for the purposes of Langton and similar institutions to be able to use location as the indicator of precisely where the work was shown, either specifically where in a gallery the work was (e.g., west wall) or outside of the gallery.

*Authorization.* While some information can be found in archival documentation, in an era with growing concerns over rights it would be important to record this information at the time of showing or acquiring the work.

*General observations.* Three general recommendations can be made through the examination of these two core concepts. The first is that there is a need for authority and consistency in the terms used throughout the catalog. This is especially pertinent in the creator field and the subject field. Without a thesaurus, it would be difficult for the catalog to provide useful aggregation across these elements. This extends to how names and dates are formatted.

The second general recommendation would be to create elements or instructions for cataloging that emphasize being as specific as possible. The title and role of the contributor are two areas where specificity would enhance the record. For title, especially in the VERSION concept, it is key to indicate what version of the work is

being documented either by place, by show, or by date. Within the contributor element, which is repeatable, it is essential to name the role of the particular person.

Lastly, because the differences between WORK and VERSION are not readily parsed out it was difficult to create a consistent method for choosing what belonged in which core concept. Some factors contributing to this inconsistency were the varying levels of documentation, the type of work that was shown, and the show that the work was associated with. Ultimately, the dichotomy between the two concepts seems forced in a model where archival documentation is being used to construct the catalog and where the gallery was an exhibitor of the work for only a given amount of time. For Langton, it would be more useful to use the version concept as the primary data structure; otherwise there should be more distinct difference between the two concepts.

#### *Descriptor*

The MANS documentation states that this core concept is used to catalog “any type of documentation of the work that is not part of the work itself” (Rinehart, n.d.). Descriptors are required for describing the score and are permissible at every other level with the idea that “describ[ing] aggregate or very granular parts is very important for complex multi-part works” (Rinehart, n.d.). Therefore, a descriptor can occur in any core concept to provide additional metadata.

Throughout the case study, the descriptor was used as a catchall field containing everything from the intention of the artist to the origin of a specific part of an installation. The content of the descriptor varied depending on the core concept it was associated with.

As discussed above, the SCORE level describes the intention or origin of the score itself as specified in the MANS documentation.

Under WORK and VERSION the descriptor field may contain narratives about the show, lists of documentation found in the files, curatorial and/or artists statements, and information about how the work fit into a show both thematically and physically. On the WORK level, the descriptor field held information pertinent to the work as its own entity. This would include information such as an artist statement (when available), information about the work before it showed at the site, and a basic description of the work. On the VERSION level concept, the descriptor contained metadata that describe the work as it was shown at Langton. This could include information about the show it was in, what other works or artists displayed at the same time, a list of the documentation found in the files, and any information about the set-up of the gallery.

In the PART and RESOURCE core concepts, descriptor was, as the core concepts themselves were, more difficult to populate. Typically it has a brief narrative statement about the part or resource. While this adds information to the record, it is often simply repeating something found in the documentation for the piece.

#### *Observations on the Implementation of DESCRIPTOR*

While the descriptive metadata provides a skeleton of the work, the meat of the work can be found in the descriptor field. Especially in working with archival documents, the descriptor core concept is likely the most important if most crowded and inconsistent. For the descriptor level to be most effective a set of rules should be put into place about what information should be recorded in the DESCRIPTOR. Without an

understanding of what can reliably be found, or not found, in the DESCRIPTOR, users may not find the metadata helpful for their purposes.

Another problem arises in that what is included in the field is often an interpretation on the part of the cataloger. It is reminiscent of the childhood game “telephone” where one person whispers to the next in a circle and by the time the message makes its way around the circle it is entirely different than the original statement. By taking documentation that may have been interpreted from the artist by gallery staff and then again reinterpreting it for the metadata set, the information is further removed from the original use and intention.

#### *Part and Resource*

Similar to WORK and VERSION, PART and RESOURCE have an analogous relationship. Rinehart (n.d.) defines a PART as a “logical sub-component” of a VERSION of a work and a RESOURCE is a “discrete, fixed, or tangible expression of a Part of a work.” The distinction to be made between the two is that a part is a conceptual aspect of the work where a resource is a named tangible aspect of the work. For example, parts of a “video set-up” could include display, recorded material, and the playback mechanism. The resources would be the precise items used in the particular version. By naming the part within the dataset, one has preserved the logical unit of the work without the restrictions of the precise items used in the original installation. This information is complemented with the metadata in the RESOURCE concept, which names the specific resources used for that version or incarnation of the work.

In the cataloging from Langton's holdings, 163 parts and 117 resources were recorded. These items were most often taken from lists provided by the artist or documented by the gallery staff. The information was always directly taken from the documentation and never inferred from other evidence. This does not mean that these parts and resources should be considered complete.

An example where this structure was well employed was with Lynn Hershman 2006 *Roberta Breitmore's Archive*. Roberta Breitmore was a character created by Hershman. For several months in the 1970s Hershman interacted with people—roommates, dates, psychoanalysts—as Robert Breitmore. In this show, she staged and displayed documentation of this performance piece. The documentation kept at Langton of the work was easily broken down into seven conceptual parts (External Transformation, Identity Construction, Internal Transformation, Mr. America series, Anonymous Social Identities, Exorcism, and Added artifacts/documentation of Roberta Breitmore).

In MANS, the conceptual parts were put into the PART core concept. Resources were then placed under each conceptual part, as enumerated from a list in the documentation. While this fits well within the structure of MANS, not all works were clearly divisible on a “conceptual” level nor does it seem to be the intention of MANS to only operate on this high of a level of concept.

*Observations on the Implementation of PART and RESOURCE*

For Langton's holdings, which are entirely document based, it was often hard to know what the parts and resources were, much less make the precise distinction of what

was a theoretical part of an artwork and what was a discrete resource of that part. The theoretical part and the actual resource are a luxury of acquisition and without the parts and resources in front of the cataloger it is a difficult distinction to make.

This raises the question of whether these fields should be used at all when working with archival documentation. If the work is no longer at Langton and Langton is not tracking its current location, it is unconfirmed whether or not it still exists. In this sense, perhaps any documentation of the work might be better than having no record at all. Conversely, if the cataloger is attempting to parse out the parts and resources from the archival documentation this adds another layer of interpretation to the work. It would seem that the only logical time to use these fields is when the work is installed at the gallery so that that curator and artist can guide the cataloging process or, alternately, when there are very specific notes in the file as to the parts and the resources of the work.

#### *Choice and Condition*

Understanding that works cannot always be re-created in the exact form in which they were originally shown, Rinehart has built in two core concepts to explore the permissible alterations to a work. The choice core concept can encompass both the type of change that can be made to a work and who is authorized to make these changes (from artist to public). By making these choice-related decisions, the artist retains some control on the future incarnations of his or her work. Condition lays out the links between certain choices, so that future users can make decisions based on the choices and conditions put upon them.



These core concepts are not easily employed using archival material. There is only one instance of use in the case study. In a letter found in the file for her work, “This is my world,” the artists Martine Corompt explicitly laid out a series of choices for how her work could be displayed depending on what resources were available. This allowed for these core concepts to be used. This would indicate that the only finding is that these core concepts are virtually unusable when cataloging from archival materials.

#### *Observations on the Implementation of CHOICE and CONDITION*

Without the artist present, these fields are nearly impossible to populate. Any choices and conditions in records created from archival material must be inferred from the documentation, which, again, adds a layer of interpretation on the part of the archivist. The best practice would be to only include these core concepts at the time of exhibition or acquisition.

The level of detail in these core concepts is very granular, which will likely be useful if and when a piece is recreated or researched. Langton keeps documentation on all of the works that have exhibited in the gallery. Although the level of documentation is not consistent, if they could practice keeping metadata about choices and conditions for later recreation in their files this might be sufficient for later study. The practice of standardizing this information into a data structure will produce some evidence, but does leave room for re-interpretation, misunderstanding, and vagary.

#### *Additional Observations*

In the original design of this study the primary focus was on the unique aspects of the art. As cataloging began, other issues became evident. Langton’s documentation and

practices demonstrated their metadata needs. Learning more about their recordkeeping revealed what information was available to populate a data structure. Reading about art pieces out of context showed the importance of providing context for these works. The four areas that yielded significant observations were: (1) how to work with the available documentation, (2) how to accommodate the show or event that a work was part of, (3) how to cope with sheer amount of metadata that a data structure like MANS demands from the source materials and (4) how MANS could provide context for variable media artworks.

### *Documentation*

Early examination of Langton's archive revealed various levels of documentation throughout the years. When the gallery was first opened the documentation was minimal, but content-rich with many of the pertinent details available. With the introduction of computers and the increased use of email, more documentation was kept; however, the content was often less useful for the purposes of MANS. The increased documentation was more likely to contain details such as meeting dates and times or have a long series of quick email exchanges that do not add to the record of the actual artwork. This made cataloging more difficult as there was considerable documentation to cull through before finding the details that would match the elements of the dataset.

While some records were easily constructed using the Langton files, many required hours of work to interpret into a usable score. This process does require the cataloger to, in effect, reinterpret the work thereby creating a distance from the original work. Ultimately, these findings suggest it might be better to have a data structure that

does not interpret, but simply documents the documentation. While the descriptor core concept provides room for documentation that is not part of the work (Rinehart, n.d.) in instances where documentation is all that is left a more stringent and robust DESCRIPTOR core concept would be beneficial.

### *Representing the Show*

During cataloging it became evident that there was a need to encapsulate or logically tie records together that were part of a single show. For the most part, works were given separate records and links to other works in the show were made by making notes in the descriptor field in the version core concept. Although this created streamlined records, the works were separated from other works shown simultaneously. The way in which Langton curates their shows, often by theme or genre, adds meaning to the works. In order to provide this context, three options using the work and version core concepts were explored as a way of containing all works that were part of a single show.

The first option was to create records for several works under the same SCORE. In this way the score was the binding concept, in effect creating a hierarchy where score was the top level record recording information about the show as a whole. Then each work in the show had a WORK record that could branch out to include VERSION, PART, RESOURCE, CHOICE, etc. A score for the performance of Jock Reynolds and MOTION, a women's performing collective, was constructed as such. Four performed pieces are all listed under the same score. This was the simplest solution and stays somewhat true to the original intention of MANS by using work and version core

concepts to describe each piece of art separately. Were this option to truly work, the SCORE core concept would have to be expanded to include metadata about the show.

A second option explored used the WORK core concept to create metadata for the show and the VERSION core concept to create records for the individual works of art. A performance and screening of George Manupelli's work was cataloged with the WORK core concept describing elements of the show and the VERSION describing each piece in the show. While this option undermines the intention of MANS, having all of the information pulled together in a single record allows access to all metadata about a show and the works in it. For this arrangement to effectively provide a container and create the necessary metadata for Langton, the work core concept would have to be altered to provide more metadata about the larger exhibit. More basically, the terminology of SCORE, WORK, VERSION, etc. would have to change to reflect the metadata being recorded.

In the third option the WORK and the VERSION function as a way to provide metadata about the show and the works in the show are documented in the PART core concept. *BAGS*, an installation by Laetitia Sonami and Nick Bertoni, was easily cataloged with the works in the PART core concept. Each piece in the show was similar in form, concept, and theme—a bag that was used in everyday life was transformed to take on motion and sound. These pieces did not necessarily function as a whole, even though they were presented together. Here WORK is used to describe the installation as a whole on a conceptual level and the VERSION core concept is used to describe the particularities of the site's involvement in the staging of the work. The VERSION also

points to documentation of how the gallery was set up for the installation. Each piece, in this show an animated bag, was then enumerated using the PART core concept. While this option strays from the original intention of the data structure, it provides a good blueprint for how a dataset including information about the show could be structured.

The show is a key concept for a site like New Langton, as works are almost always presented in conjunction with other works—either by the same artist or along themes or genres designated by a curator. On the rare occasion that an installation takes up the entire gallery, the show and the piece are the same entity. In all cases creating a core concept for the show or “event” is essential.

#### *Managing the Metadata*

With variable media art, the sheer amount of metadata can be massive. Because each concept can contain several branches, the process of documentation can be time consuming resulting in a record that is unwieldy. If this process takes place at the time of exhibition or acquisition, the record can include the input of the gallery staff, the curator, the artist and any other related persons. If this happens later there is the risk of the metadata being merely an interpretation of the documentation on the part of the cataloger.

It would seem that variable media art would need this amount of metadata, but two problems arise. One, through using archival materials this information was often inferred from archival documents essentially making this a re-interpretation of the information. Two, when there was documentation in the files that allowed for the enumeration of various aspects of the work the cataloging process was merely a verbatim copy of what existed in the files. Perhaps a better structure would be achieved by

extending a current standard such as, the Categories for the Description of Works of Art or Dublin Core, to track documentation. This would allow for basic descriptive metadata about the artwork and enumerate what is in the file with out reiterating the same information that has already been documented.

### *Context*

The term context in relation to variable media art takes on several meanings— cultural context, visual context, and the context within the show. Cultural context relates to the cultural influences that shape the piece and that which the work comments on. Visual context pertains to the way that a piece was displayed, which is pertinent in variable media art as the venue can influence the way a work is shown. The thematic context of a show can also provide information about how the work was viewed at the time of exhibition. All of these contextual influences can deepen understanding of a work. By providing this information works may be re-created in the future to reflect the same commentary, influences, visual context, and themes, but perhaps using different elements.

Again, the DESCRIPTOR core concept provided the best option for this information. When information about context can be located in the archival material, it is re-interpreted from the documentation into the data structure. This creates two problems. First, it creates an opportunity for misinterpretation by the cataloger. Second, it places metadata in the DESCRIPTOR without a structure for understanding where this information comes from or if it is truly intent of the artist or curator creating the context.

## *Addressing the Research Questions*

### *Unique Aspects of Variable Media Art*

The original research question for this project was whether or not the unique aspects of this art—artistic intent, distribution, heterogeneity, ephemeral nature, interactivity, and preservation—can be met in a standardized data structure. While not every work shown at Langton possessed each of these qualities, there were numerous examples that did or possessed some of the unique aspects of the works that required attention. Therefore cataloging them illuminated various issues with MANS' capability to capture information about these issues.

*Artistic intent.* While theoretically there is room in MANS for artistic intent, two problems were evident. One, often there was very little evidence of what the artist's intent for the piece was. Occasionally, a statement was found in an artist proposal. More often there was a curatorial statement found in the show program or gallery guides. This does not reveal artistic intent; rather it is the curator's interpretation of the work. If this information could be included at the time of exhibition, it would be more reliable. Even if the artist is giving this information retrospectively, intention can change over time.

The descriptor field itself presents the second problem. While it is the most logical location in the record to put information about artistic intent, this adds more content to the descriptor with very little structure. While there is room to include this information, ultimately, MANS would need to add a specific core concept to incorporate this information.

*Distribution.* Distribution has two meanings in talking about variable media art. The first relates to the distribution of authorship. These complex works often require various performers, computer programmers, constructors, videographers, etc., whose roles are all separate from that of the named artist. The other definition of distribution pertains to how a work might be viewed in various ways or multiple places. For example, online work can be viewed on any computer connected to the Internet.

For authorship, MANS offers the repeatable creator and contributor fields. While these sufficiently document the persons involved, a better mechanism could be in place for defining the roles of those persons. For distributed viewing, the DESCRIPTOR core concept provides a place for information relating to how and where a work was viewed. For a more explicit, defined accounting of this information the type field might be expanded to include other pre-defined terms. Alternately, a repeatable field for distribution could easily be added.

*Heterogeneity.* There are two areas in variable media art where heterogeneity comes into focus. The first is in that variable media art takes many forms. New Langton has exhibited everything from the talking handbags of Nick Bertoni and Laetitia Sonami's *Bags* installation to the out of gallery Billboards project of Felipe Dulzaides. There have been writers-in-residence, full gallery installations, photography, digital art, video art, etc. To the extent that all types of art shown at Langton were recorded to some level in MANS, the data structure is successful. The type field also offers an opportunity to describe the heterogeneous nature of the work.



The second form of heterogeneity is in the parts that make up the art. While the art itself can differ in form from other pieces in the genre, the elements that make up the art can vary wildly. From Mason jars used in Peggy Ingalls' "Domestic Landscapes" to a life-size doll in Martine Corompt's "This is my world," these very diverse parts need to be documented in the data structure. MANS provides an excellent opportunity for this in the PART and RESOURCE core concepts.

While MANS can provide basic metadata for heterogeneous works, 19 of the 58 scores only go to the work level. Performance works are a good example of this as often there are not specific details that could be recorded in the PART and RESOURCE core concepts. To better serve all potential type of variable media art, two options could be explored. One would be to create specific fields that apply to specific types of art, such as performance art. To do this would create a very large data structure, most of which would go unused. Another option would be to broaden the definitions of the core concepts in a way that could include works that do not have parts and resources that adhere to the ideas put forth in the MANS documentation.

*Ephemerality.* Variable media art is by nature ephemeral. Performance works, like "Selling Yourself and Not Your Art" by Sean Fletcher and Isabel Reichert, may be staged over one or two nights and never seen again. An installation that fills the entire gallery like Peggy Ingalls' "Domestic Landscapes" may be shaped by the configuration of the gallery and never be exhibited in the same configuration. A work like "Local Trash" by Richard Godfrey changes depending on the locally found materials. The form

that these works take are fleeting, ephemeral and dependent on factors such as the artists and curators intent, the nature of the work, or the available space and materials.

The depth of MANS from detailing the version, which might differ from the original form, to documenting the parts and resources, to defining the artists' choices for their work is a good framework for recording the ephemeral nature of this work. Trouble sets in on two ends of an extreme. When there is incomplete documentation, the resulting record is also incomplete. In these cases if documenting the ephemeral nature of the work includes documenting its very existence, then those records are successful. But, looking at ephemerality is more than that. It is understanding all of the elements that go into the work as fleeting as it is.

Alternately, when there is greatly detailed recordkeeping copying this information over to the data structure is redundant. Documentation does this without the database in that it creates a record of the artwork as it existed in the moment. If the metadata is created at the time of exhibition, the data structure would do a solid job of recordkeeping, as it would assure that the cataloger recorded all of the aspects of the work. Along with documentation, this would create the strongest record. To do it later creates two objects: the documentation and the interpretation of the documentation.

*Interactivity.* Variable media art engages the viewer in a more interactive fashion than traditional art. Interactivity can take many forms. Works can have sound and motion that operates independently from the viewer, but still affect the way the work is viewed. Other works rely on audience participation for the work to operate, which

greatly influence the way in which the audience sees the work. The way that this can be captured within MANS depends on whether this is a digital or analog piece of art.

With digital or web-based works, there is the ability to incorporate digital packets into data structure. For these works, the interactivity would be evident through viewing the work. Cataloging the interactive nature of analog works relies on documentation of the interactive aspect of the work. This is true for both for works with stable or repetitive interactive aspects and works that rely on audience operation where each viewer has a unique experience with the work.

Within MANS, the most obvious place to include information about the interactive nature of these works is in the DESCRIPTOR core concept. This places a further burden on this core concept to capture even more metadata about the work. If this information exists, it is likely already in documentation found in the archival material therefore pointing to that document may be sufficient. Ultimately, it may be better to create a core concept around interactivity or decide that capturing metadata on interactive nature is not fully possible.

*Preservation.* Preservation is tricky to test when working with a site like Langton, as it is not a collecting institution. The records and the archival material exist to document work as it was exhibited at their site. Addressing preservation is not part of their metadata or archival practices as they no longer have the work and they do not track the existence of the work after it leaves the gallery. The Langton archive exists to document the practices and exhibitions of their gallery.

Using the data set for cataloging, the PART and RESOURCE core concepts aid in parsing out the work. If done at the time of exhibition, this metadata might assist in re-creation of the work, but it does not necessarily speak to the preservation of the work. The DESCRIPTOR core concept is used to give information about the whereabouts of the works, parts, and/or resources. Similarly, preservation metadata could be included in this field. Without data to test in these fields a determination cannot be confidently made.

*Assessment of success.* Of the seven unique aspects of variable media art, the findings of this study show that there is at least some support for six of these aspects. Due to lack of information in the archives, metadata about preservation is untested. While the qualities of variable media art can be addressed in some way in the MANS data structure, most of the time it is not done deliberately. Additionally, this information was often placed in the DESCRIPTOR core concept, which with repeated use serves as a default field for information that does not have a discrete home.

A couple of options might improve the situation. One, broadening definitions might help to expand the applicability of MANS. The drawback of this option is that fields would not be specific to the metadata they would be housing. Two, to appropriately address these issues MANS would need to expand with additional core concepts and fields. At the very least specific fields that address these aspects of variable media art should be added to the DESCRIPTOR core concept. Otherwise the metadata is a jumble of various facts and statements about a particular work.

*What is being cataloged*

The second major research question was what is being cataloged, the art or that which documents the art? Is it a combination of these two things and if so, what does this metadata set represent? Is it an archive, a catalog, or something else?

MANS attempts to create a data structure that accommodates both the work and the documentation. In variable media art often all that remains of a piece of art is the documentation, the result is that what is being cataloged is both the work and its documentation. The DESCRIPTOR core concept is defined as being for any item that documents the work, but not the work itself. This is quite a tall order for a single element. It is possible to create a structure for this genre of art that includes both of these components, but the fields should be more specific in order to distinguish the work from its documents. Ultimately MANS is a data structure faceted for the description of many aspects of the work, which also allows for some information about the documentation to be kept in the same data set.

In the case study, the metadata gathered catalogs Langton's archive of show documentation by transposing information about the shows and pieces exhibited in the gallery into MANS. In this sense, the actual work is not being documented. Rather it is information about the work as documented in the archives that is being cataloged. The metadata created in this study represents that which is left behind of a work of art that has shown in the Langton gallery.

This metadata does not take the place of a physical archive, nor is it precisely a catalog of the works exhibited at Langton. Because the metadata comes from the

archival material the resulting metadata functions like an archival finding aid for the documentation of the work with basic cataloging information about the work itself.

*Accommodating the work and its archive*

The third research question asks whether a metadata structure can document information about both the artwork and the documentation of the artwork. As discussed in the findings above, the documentation of the work was most often relegated to the DESCRIPTOR core concept. This is an adequate, but limited, solution. While MANS acknowledges the need to document both the artwork and the documentation, the focus is truly on the art.

MANS asks for the who (artist), what (PART, RESOURCE), why (DESCRIPTOR), where (location), when (date), and how (CHOICE, CONDITION) of a piece of art in hopes of capturing all the unique aspects of this genre. This information is drawn from the documentation, but it does not explicitly ask for information about the documentation. Considering that the metadata about the work must come from the archival documentation, there needs to be a way that better catalogs what is found in a particular art piece's file. Future users will benefit from knowing what is in the archive about a particular piece, as it will provide context for the piece and knowledge as to what documents can be further researched to learn more. Although MANS is not entirely successful in documenting both, the intention is there and it indicates that with further work it is possible. For it to be successful, documentation of the documentation needs to be refined.

### *The use of archival materials*

The final primary research question asks whether or not archival materials can be used to catalog variable media art in a metadata structure. For the most part, works in this genre only have documentation left to describe them in a catalog. In the case of the Langton case study this was entirely true.

Using archival documentation to catalog variable media art takes us back to that childhood game of telephone. The data structure has room for the intricate details of the work; however, these details are being gathered by a third party from archival documents. The information being put into the data structure is being reinterpreted before being entered into the data structure. Therefore, the information in the catalog is not necessarily what the artist intended, the curator staged, or what the audience of the work even saw. Instead, it is an interpretation of the documentation.

This does not necessarily mean that it is fruitless to use archival documentation to catalog these works, but the cataloging should be specific about what information is being captured and where that information comes from.

### *Variable Media Art Metadata*

The secondary research questions are related and will be addressed simultaneously as they almost present a dichotomy. The first question asks whether we need to document variable media art with a more rigorous metadata standard, while the second asks if a current metadata standard would be sufficient to document variable media art. If the answer to the second question is “yes,” then it would follow that the answer to the first question would be “no.”

Within the scope of this case study it was interesting to see what fields worked best and were used most often in describing the art. For the most part, these fields were common to other metadata standards including Dublin Core, the Categories for the Description of Artwork, and the Visual Resources Association core categories. In documenting works from the archival material of New Langton, it would seem that a current standard could suffice with extensions that address the unique aspects of variable media artwork.

This research only begins to answer this question. To truly know that this vast genre of work might or might not need a different standard it would be wise to look at cataloging at the time of exhibition. The fields that were harder to populate may be easier to populate with the actual work at hand. In the case of using archival documentation, it might be best to use a current standard augmented for variable media art. Recommendations for this follow in chapter 5.

### *Conclusion*

This chapter discussed in depth the various issues, successes, and options for refinement in MANS. Two major general conclusions can be made from this case study. First, while MANS is complex and addresses many of the issues incumbent to variable media art, concepts can be expanded and added to create a more robust structure. MANS often relies on a single core concept (DESCRIPTOR) to be all things to all metadata. Adding fields would strengthen and contextualize the information. Two, capturing metadata from archival material has limits. This process requires re-interpretation of the information, which can essentially change the metadata. Also, there are many instances



where the required metadata does not or cannot exist in an archival file. In the fifth and final chapter recurring findings will be presented as series of recommendations for sites wanting to catalog their variable media art pieces, for the refinement or construction of a data structure for variable media art, and ideas for future research in this field.

## Chapter 5: Conclusion

The goal of a case study is to observe how well a theoretical concept works when put into practice. In this case study, the practice of cataloging variable media art works using archival material generated two major conclusions about the use of MANS for cataloging variable media art; one, there are several aspects of variable media art that are not fully addressed in MANS and two, cataloging these works from archival material has limitations. From these conclusions, other general observations and recommendations for MANS and any other data structure for variable media art can be made. The findings in this case study also give rise to suggestions for sites wanting to catalog variable media art, for future research in this field, and about how to make it possible for small sites to catalog their works and shows.

### *Recommendations for the Construction of a Data Structure*

MANS is the product of analyzing previously instituted systems and expanding on their structures. Using Dublin Core as a basis, MANS attempts to address the specific aspects of variable media art. As was discussed in the findings chapter, it addresses these particular needs with varying levels of success. These recommendations stem from the general conclusions about MANS and cataloging variable media art.

### *Limits of MANS*

While MANS extensive set of core concepts and fields addresses many of the aspects of variable media art, there are areas in which it could be improved. By adding more structure to the DESCRIPTOR core concept, particularly in relation to artistic

intent, the concept of the show or event, and the creator and contributor, MANS could better document the varied aspects of a work.

### *Descriptor*

The DESCRIPTOR core concept was used repeatedly throughout the case study to capture information that did not fit into other parts of the data structure. This included information about the show a work was part of, listing of documentation in the archival file, physical description of the work and/or its behaviors, information about the history of the work, a statement about the intent of the piece, etc. The descriptor became the default location for all information that had no other home.

If MANS, or any other data structure, is to be effective this information needs to be separated out and organized. To this end, it would be useful to examine the information that was put into the DESCRIPTOR and establish a method for documenting it effectively. This may require the creation of more core concepts or refining how the descriptor concept is incorporated in the data structure.

Prominent in the findings was the absence of a container for the concept of the “show.” Works by different artists bound by a curatorial theme are often shown together in museums and galleries. In cataloging, several possibilities for how to incorporate the concept of the show were tested, none of which were fully successful. If nothing else were added to MANS, a core concept for show must be included. To not have this removes the context under which a particular work was originally seen.

A show/event core concept would also preserve the history of the gallery or museum by grouping works together by exhibition. It would offer insights into trends in

the art world, the priorities of individual galleries and curators, and add to the history of the art and artists of a particular time and place. To not include this essential piece implies that artworks exist and are viewed in a vacuum.

Artistic intent is a key aspect of this genre of work; however, there is no explicit place to document this in MANS. While the DESCRIPTOR field was used for this purpose in the case study, it does not afford it the prominence that it deserves. For works with no physical form or that are dismantled at the conclusion of a show, intent may be the only remnant of the piece. Therefore documentation of intent is essential for variable media art.

The distribution of authorship also could benefit from a deeper level of documentation about the creator/contributor. Without a container to bring these elements together records could become large and difficult to mine for information. Looking at this problem recalls the solution of the taxonomy created by V2 in the Netherlands. While keeping the structure of the dataset, it could be possible to create authority records for artists that could be attached to any record at any level, across both works and shows. This would allow for a deeper dataset that reflects both the complexity of the work, as well as the way in which Langton and other sites exhibit this work.

This could allow for the inclusion of the role of the participant and make it possible for the creator and contributor to be attached to various aspects of the record. For example, a creator of a particular part of the work could be attached to that aspect, but not included on the base level of the record as a creator of the concept of the work.

### *Limits of Archival Material*

Institutions that have a rich archive are fortunate, as their history is still accessible. The great difficulty in using archival materials for cataloging is that you are not necessarily documenting the work that was shown, but rather that which documents what was shown. The danger in doing this is that the information in the files, beyond the basic metadata, is subject to the interpretation of the cataloger.

A data structure should be able to accommodate both works cataloged at the time of exhibition and those that are cataloged using archival material. This could be achieved through using an established data structure (i.e., CDWA, VRA, or Dublin Core) and expanding it to include the core concepts that MANS suggests and others. For works cataloged at the time of exhibition this data set would be more extensive. For work cataloged retrospectively the data set would contain basic metadata and information about the documentation.

### *Recommendations for Sites*

Sites that exhibit variable media art differ in structure. Museums collect and exhibit this art, commercial galleries show this loose genre of art for sale, and small nonprofit galleries temporarily exhibit this art. While these recommendations could apply to all three types of institutions, the focus of this study was to look at the latter type of gallery.

- *Work should be cataloged at the time of exhibition.* To accurately capture the various aspects of the work, it is best to catalog these works when the artist and curator are accessible to provide information about intent and context. By

capturing this information at the time of exhibition it is truest to the original form and not being re-interpreted at a later date.

- *Create a template for what documents and metadata should be created or kept at the time of installation.* Without an agreed upon standard for metadata for variable media art, using an established data structure (e.g., CDWA or Dublin Core) and fields that are locally relevant sites should create a template for the metadata that should be gathered for each piece that is exhibited. Using a guideline (see Appendix for example) for what documents to keep and basic data structure, sites can keep consistent physical archives and databases. By having this as a baseline, their archives will be easier to mine for data and provide a strong base for understanding the works exhibited.
- *Create naming structures.* To keep the data sets consistent, institutions would do well to establish naming structures for records. Having a consistent way of naming scores and artworks would create a cleaner data set and making it easier for future users of the system to search and understand the data.
- *Vocabularies.* Although not integral to this study, sites would find that their databases would be more useful if fields such as type, subject, and name used a controlled vocabulary. This could be a combination of an established thesaurus and locally generated terms as this is a highly interpretive act, which can influence the way a piece is later viewed.
- *Cataloging from archival material.* When cataloging from archival material, the best practice would be to get the basic metadata down, in an already

established data structure. Archival documents are great for creating basic descriptive metadata, but it may not necessarily capture information about intent, context, etc. Once the basic metadata is transcribed, then document in simple terms what information is in the archival file without interpreting those documents. Essentially, the recommendation would be to capture essential metadata and then create a finding aid for the archival material. While this is not as sophisticated as the method implied by MANS, it would document the existence of the work and allow future users access to archival documents.

#### *Recommendations for Future Research*

Case studies are the first step in research. To learn more about variable media art cataloging case studies could be done to explore the application of different data structures to the various institutions that collect and exhibit this genre of work. At some point quantitative studies could be undertaken, as well. Other topics to be explored in the field of metadata for variable media art such include:

- What is being documented? In this case study, an attempt was made to document the work that was shown from archival documentation. The answer to this question could vary from institution to institution. How does this impact the field?
- What terminology should be used to name the core concepts and elements within these concepts? This case study was not intended to evaluate how fields were referred to, but the basic units of the data structure should conform to both an existing set of standards or common terminology.

- An in-depth examination of the needs of institutions that exhibit but do not own the works would be useful, as these sites are not anomalies. With the distribution of art geographically, through electronic formats, and in different types of institutions it is important to understand how these sites are keeping metadata and what their metadata needs are.
- Ownership is a tricky concept when it comes to intangible art, therefore an examination of how these different types of works can be or are owned would inform the creation of an appropriate data structure and who should be keeping the metadata about these works.
- With the growing use of keywords and folksonomies, it is important to look at traditional art-related vocabularies. Specifically relating to this research, it would be interesting to find out if smaller art institutions use any type of structured vocabulary, to examine the way that they choose keywords, and to try to implement a controlled vocabulary at a small site.
- How well would an ontology work to catalog variable media art? A study of the existing system at the Netherlands-based V2 or the implementation of the same system at another site would provide insights about how an ontology could work.

*A Note about Nonprofit Galleries*

It is worth noting that New Langton and similarly structured sites are perpetually under-resourced. Cataloging is seen as a low priority. The expectation is that interns can be trained to organize their archives and create these records. This is realistic, but there



needs to be some investment on the part of the institution, which is often difficult. With a struggle to maintain funding and fully staff these institutions, peripheral projects are typically the first to be put on hold. The best-case scenario would be to have a data structure that was pre-packaged with in-depth cataloging instructions so that the work can be done when they have the resources to do the work.

### *Final Research Conclusions*

When starting this research a series of questions were laid out asking if a proposed metadata structure could document variable media art. In the findings chapter the attributes of this art—artistic intent, distribution, heterogeneity, ephemeral nature, interactivity, and preservation—were examined through the lens of this case study to reveal mixed results. While there was room for much of the information, it was not necessarily accommodated appropriately. Most of it was found in a single core concept—the DESCRIPTOR. In a data structure specifically for variable media art, this core concept needs further refinement and specific elements for these concepts to be fully documented.

In creating data structures for variable media art, most proposals suggest a structure that reflects the complexity of the art. In this study the complexity comes not simply from the aspects of the art but in that which is being cataloged. Because this field of art has been in practice for over a half century much of this work will need to be done retrospectively. A question was set forth earlier of whether it can be done. As it the situation we are presented with it seems that a solution must include options for cataloging from archival material. The question perhaps should not have been can it be

done, but **how can** it be done? MANS provides a method, but so do existing data structures, most notably CDWA.

Variable media art is difficult to define because the media used to create it is *variable*. The diversity of the types of work might lend itself to a simpler system. It may be near impossible to create a single system that has options for such a variety of work. As suggested above, a better solution might be to document the work in a base record based on Categories for the Description of Art. This would allow for easier sharing of information between institutions. Then the additional information that this work requires could be included by extending the data structure to include the core concepts suggested by MANS, as well as information about the archival documentation.

From the point of view of an institution with three decades worth of archives, an existing data structure could provide a building block for a catalog of the works shown in that institution. Once this is in place, a more elaborate cataloging of the archives could take place by creating finding aids, either traditionally or using EAD. And a third step would be add information, where reliable, about the work itself using MANS-like core concepts to extend the existing data structure. It is not that the work require a more rigorous metadata structure, so much as the amount of information that these works carry with them can be more elaborate.

None of this is to say that MANS fails in its attempt to create a data structure for variable media art. Richard Rinehart considered the predecessors to this data structure, as well as the needs of the art when developing MANS. The data structure provides a concept that can be worked with, adapted, and expanded to accommodate the needs of

both the work and the sites that exhibit it. With more input and attempts to use it and other data structures for variable media art, a solution to cataloging this no longer so new form of art is on the horizon.

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## Appendix: Recommended Guidelines for Recordkeeping at New Langton

### **What to keep** (One copy of things)

- Contract
- Installation planning (significant planning)
- Financial/budget
- Documentation
- Exhibition statement
- Press release
- Press of the show
- Bio/CV of artist
- Relevant emails (describe the process)
- Gold CDs of digital images
- Exhibition checklist
  - Name
  - Title
  - Date
  - Material
  - Dimensions
  - Lender
- Install form
  - Narrative of the piece
  - Narrative of how the piece relates to the other works
  - Technical aspects
- Layout
- Proposal
- Individual folders
- Post card/gallery guide—anything that was in print for the show

### **What not to keep**

- Images not in show
- Press not about the specific show
- Detritus—anything that does not contribute to the record