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The Catalog's One-Many Problem:

Reading the Walker Art Center's Online Collection Catalog

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The Catalog's One-Many Problem:

Reading the Walker Art Center's Online Collection Catalog

by

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Report

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Science in Information Studies

The University of Texas at Austin

August 2013

Dedication

For Grant Olney Passmore, utterly unforeseen love of my life.

Acknowledgements

Abstract

The Catalog's One-Many Problem:
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The University of Texas at Austin, 2013

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A museum catalog is a legible, interpretable information system that acts as a rhetorical exposition of the museum's collection and work. The unity of a collection is of course distinct from that represented in a catalog, and still further from the reader's experience of it. But the information that comprises such an assemblage of individual records or representations, consistent metadata, support the ability to "read" collections as finite, enclosed, or complete. Here I perform a close reading of the elements and relationships that underpin the Walker Art Center's online Permanent Collection catalog, an emergent publication funded by The Getty Foundation's Online Scholarly Catalog Initiative (OSCI). I incorporate multiple layers of interpretation into my reading of the structure and contents of the museum website, drawing on concepts developed in information science and textual studies by Bonnie Mak and Johanna Drucker. My performance of reading of the new catalog helps me begin to address how collectively, online representation in virtual frames, contextualization within a

website, searching, and browsing support divergent interpretations of a collection catalogue as a text. I conclude that to engage a catalog at a scholarly level, and to interpret and synthesize meaning of the catalog as a text, the museum must situate its self-representation spatially and temporally.

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Prologue

In his 1940s text "Museums without Walls" André Malraux predicted the demise of museums, proclaiming easily reproducible images distributed to the public would replace them. Textual studies and bibliography scholar Johanna Drucker describes the French writer, art critic and Cultural Minister's concept as one of utopian, enlightened democratization: "The 'museum without walls' was a utopian vision of cultural property loosened from the grip of institutions, curators, elite collectors, or private patrons" (Drucker, 2004, p. 321). Malraux's vision of unhindered popular access to unbiased images that could liberate cultural and aesthetic riches remains impossible and yet continues to resonate today. Not only have artists taken on the challenge of representing the museum or exhibition space in published form, as Drucker explains in her The Century of Artists Books, but for art in particular, digitization as well as native digital and online images have come to support easy and widespread dissemination of representative images (Drucker, 2004). Indeed, Mimi Zeiger suggests that we collect sets and even entire archives of images in lieu of those aura-infused volumes Benjamin pored over in his "Unpacking My Library: A Talk about Book

Collecting" (Zeiger, 2011) Digital collections are easy to acquire, and access to

their images and texts requires only an Internet connection and a screen.

But even as images and collections of them continue to evolve with

media and technological innovation, I demonstrate here how a "democratic"

distribution of images of artworks by museums remains impossible, problematic

as ever. Archives and collections, for starters, are actually catalogs that act as

images of collections; they act like frames that present precious and provocative

items, but they do not seem compelling to read as information systems. In fact,

reading the systems rather than images that comprise catalogs for the most part

resembles the work of contributing to them: it is challenging work, appreciable

only upon sustained accumulation of tiny, routine increments. I spent the

summer of 2012 avoiding the rote task of ingesting art books into a museum

library collection; despite the beauty of my charges, and their individual ability

to provoke my interest, the reductive process of locating, matching, and

contributing to records that represented the books exhausted me. I spent the

summer of 2013 reading a museum's website and its public-facing collections

catalog, hoping to glean insights into why classification systems, even those that

organize the most engaging objects, are not just essential but thoroughly

difficult to interpret, much less to enjoy. The results of the exercise follow,

demonstrating my situated reading as evidence that collections, classification

systems, and catalogs themselves require purposeful analysis by designers and

independent scholars alike. Learning to read them better, and to see who and

what they privilege, we shall learn how to make them more evident, engaging,

and empowering.

Introduction

The Walker Art Center is Minneapolis's contemporary art museum. Unaffiliated with educational institutions, it is also geographically distant from New York, Chicago, and Washington, D.C., major cities that are hubs for cultural institutions and those whose work involves them. The Walker's relatively peripheral relationships to arts and culture critics as well as to mass media producers have contributed to its reputation as an unconventional, participatory, and even experimental venue for artists and audiences. The museum's relative remoteness also means its website likely serves as the primary access point for a broader, non-local audience interested in the Walker's activities and pioneering collection of multimedia holdings including paintings, prints, and sculptures, as well as installations, performances, and conceptual and digital artworks, the majority of which date to the late twentieth century. Developed since 2011 by the Walker's New Media Initiatives department, with original and second-hand content maintained by the museum's dedicated web editor the website also hosts images of the Walker's digital and digitized collections that allow me to locate information about recent events, or that provide my first, and possibly exclusive access to holdings. I am likelier, for example, to identify and view a

particular one of the Walker's 424 works attributed to Jasper Johns through its collection website[1] than I am to find it in a dedicated gallery space.

The Walker's mission statement, reprinted at the base of recently redesigned Walker website pages, suggests an institution-wide objective of inviting aesthetic and civic interaction, rather than one of foregrounding institutional vision or narratives to patrons: "The Walker Art Center is a catalyst for the creative expression of artists and the active engagement of audiences." The statement indicates the institution's eagerness to remain relevant as technologies and their expression evolve and require new models for relating to audiences. At the same time the Walker's mission denies both its situated, rhetorical position, according to which "contemporary" must remain a relative term, and its established or historical relationships with both patrons and artists whose works it collects, preserves, and exhibits. Within and distinct from the main website the Walker's new online collection catalog reflects this elision as well, denying the complicated negotiations of departmental interests and technical considerations of the complex translation required to present the collection's materiality online.

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[1] http://www.walkerart.org/collections/artists/jasper-johns

I propose here to examine this conflict between neutrality and rhetorical position, or timelessness and history, in the context of the Walker's website and especially its online collection catalog, which is at once isolated within and integral to the Walker and its website. I understand the unity of my reading experience, which enlivens the collection catalog for me, as a narrative distinct from the one disclosed by the full 12,000-item collection itself. By engaging these highly negotiated digital publications in close and personal, situated reading, interacting with it and scrutinizing it as both a discrete and integrated information system, I am able to draw conclusions about who and what the catalog privileges, and what such implicit optimization might mean for the website and the institution's concept of its collection. Interpreted as an information system rather than an explicit and singular expression of editorial savvy, the Walker's website betrays contradictions and complexity, a coherent tangle of information that juxtaposes current events with digitized museum records or web archives, an online store with collected artworks. I demonstrate where and how these fundamental components of the Walker's public self-representation may fail and how the institution might do better, drawing on work of sociologists and classification scholars Susan Leigh Star and Geoffrey C.

Bowker, information studies scholar and medievalist Bonnie Mak, and textual

studies scholar Johanna Drucker to support my conclusions.

Classification and Boundaries

Star and Bowker explain in their introduction to Sorting Things Out:

Classification and its Consequences that standards order how we look at the

world around us, informing rules and protocols that underpin classification

systems, helping us assign categories to things we need and use that in turn

allow us to relate and talk about them (Bowker & Star, 2000, p. 13-14). In fact

standards and their spatial, temporal, and material manifestations in

classifications are so ubiquitous that they often recede to the far background of

experience, evident only when they break or fail to accommodate new things

and viewpoints. To take a relevant example, the purpose of artwork, as Merleau-

Ponty has it, is to reveal some previously unimagined vision of reality, to

confound or at least upset the inertia of standards to which we have become

acclimated. But even artworks have titles, except when artists do not grant them;

artists have names unless they hide them; they have shapes and are made of

material components; they take up discrete space unless we compress them, or

they are too small or far away to measure in centimeters and inches.

Classifications take the form of categories of which a given object is or is not a

member; classifications, in turn, participate in information systems or

infrastructure that are equally capable of disappearing in plain sight (Merleau-Ponty, 1964, p. 10-11).

Star and Bowker demonstrate a model for examining the situated nature of as well as the ambiguity inherent to Walker's information infrastructure in their concept of boundary infrastructure. In Sorting Things Out: Classification and its Consequences, where they introduced the concept, Star and Bowker discuss historical origins and developments of classifications, and their wide applications and readerships. Specifically, they determine that "boundary" objects and categories that serve different purposes at different times and for different members of an organization have no singular, concrete meaning; they are stable but bear and facilitate a multiplicity of meanings and purposes. And while they may be interpreted and applied divergently across communities of practice their integrity and classification remain intact. Information infrastructure like that comprised of boundary objects becomes boundary infrastructure when it "serves multiple communities of practice simultaneously" (Bowker & Star, 2000, p. 313). The Walker's website and online collection catalog consist of boundary objects that serve the museum director, new media team, critics and bloggers, researchers, and amateur patrons differently. The website and collections

catalogs are also classification and information systems that serve different

purposes for each of these actors.

In this paper I will also draw on Bonnie Mak's application of the

information science model of reading classification systems as texts to explore

how the page's structure and content demonstrate a purposeful, highly

negotiated network of images, values, and relationships that originate within

and amongst the museum's distinct departments and extend to encompass

those of selected local and international artists and critics (Mak, 2012). Equally

integral to my analysis is a consideration of what the website and particularly the

online collections catalog do not disclose to online readers.

Cataloging and Catalogs

Systematic cataloguing aims to lay bare intrinsic and extrinsic relationships integral to classification systems that organize collections like the Walker's. For artworks and other cultural artifacts collected by museums and related institutions, information systems ideally respect particular standardized sets of individual and relational characteristics that describe and connect individual objects, and images and collections thereof. Cataloging Cultural Objects: A Guide to Describing Cultural Works and Their Images (CCO) (Baca, M., Harpring, P., Lanzi, E., McRae, L., Whiteside, A. & Visual Resources Association, 2006) defines data content standards for the ideal minimum composition of artworks' catalog records, especially those stored digitally in databases (Baca, et al., 2006). Records that meet CCO standards help researchers and workers who refer to catalogs within and amongst institutions to locate represented objects and their images conceptually and spatially; recorded common characteristics and relationships incorporated into catalogs records and databases comprised of them trace connections between such representations.

The CCO also suggests a catalog's depth be determined according to size requirements of a given collection, its focus, the expertise of cataloguers and availability of information, the expertise of catalog users, and institutional technical capabilities. Diverse or broad collections require less detail than more specialized collections, for which distinctions between items are less evident; more knowledgeable cataloguers are better equipped to explore relationships and presentation of information (Baca, et al., 2006, pp. 8-9). Cataloguing standards and practices advocate a minimalist approach to documentation, suggesting less granular intervention in meaning making begets transparency and simplifies the cataloguing process for those with limited financial and temporal resources.

But while less is more, at least for the CCO, Star and Bowker describe another effect of the necessary and pragmatic decision to leave some if not most information about a collected object out of a catalog record:

> Collectors and curators of all sorts must become future forecasters and decide the boundaries of what will be useful for the future. There is no perfect answer, only a set of practical tradeoffs (Bowker & Star, 2000, p. 69).

In other words, I must acknowledge standards for classification and catalogs provide incomplete models of the objects they represent. At best they serve as

sketches that reflect intellectual or cultural biases, the products of enforced

inertia. As the sole positive traces of those objects' origins, however, they are

the cultural heritage we have to consider, though they fail to stand out as such.

Further developing the concept that cultural objects may take on more

than one conceptual or material form, the International Federation of Library

Associations and Institutions (2008) published a new conceptual model,

Functional Requirements for Bibliographic Records (FRBR) in 2008 (International

Federation of Library Associations and Institutions, 2008). FRBR identifies four

levels of abstraction that characterize representations of bibliographic materials:

> The entities defined as work (a distinct intellectual or artistic creation) and expression (the intellectual or artistic realization of a work) reflect intellectual or artistic content. The entities defined as manifestation (the physical embodiment of an expression of a work) and item (a single exemplar of a manifestation), on the other hand, reflect physical form (International Federation of Library Associations and Institutions, 2008).

For entities that might be highly related at an abstract level, like editions of a

book published in different formats or languages, or consecutive iterations of a

single design or art project, the ability to distinguish abstract concepts of

artworks ("works") from their realizations, as in copies reflecting different

contexts or languages ("expressions"); and further, to discern their material

instantiations from these concept-level entities as "manifestations" (i.e., digital

entities with particular systems requirements, or printings of books), or even as unique "items" of given provenances and in varying conditions and locations that have been labeled and inscribed, is essential (International Federation of Library Associations and Institutions, 2008).

A proliferation of highly negotiated and specialized standards for digital cataloging, including the cataloging of digital objects, coincides with the College Art Association's decision to recommend including digital publications in tenure considerations by art and art history departments. In 2005 the College Art Association announced that "the well-documented 'crisis' in scholarly publishing in the humanities is especially acute for art historians, and threatens the integrity and continuity of the discipline if colleges and universities continue to insist on books as the chief criterion for tenure and promotion" (College Art Association, 2005). CAA therefore recommends that academic institutions consider print and electronic publications including essays and substantial entries in museum catalogs "as vehicles of scholarly productivity" (Ibid.).[2] Growing potential for gaining professional prominence through online exhibition and collection catalogs requires editorial diligence and invites academic criticism

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2 From http://www.collegeart.org/guidelines/tenure

of their forms and systems of meaning. But while evaluation of text-based

scholarship continues to proliferate, taking the form of close reading described

and explained in critical articles or essays, tools for criticism of the design of

catalogs, and their non-verbal modes of meaning-making, and their potential to

contribute to meaning that they might inspire as frames or interfaces, are not so

widely discussed or deployed.

ONLINE SCHOLARLY CATALOGUING INITIATIVE (OSCI).

> Going digital requires a profound rethinking of the ways in which art
> historical content can be interactively organized, maintained, updated,
> and ultimately, used (The Getty Foundation, 2012).

Informed simultaneously by a desire to enhance museums' web presences and a

trend towards digitizing internal museum records and holdings, The Getty

Foundation and the J. Paul Getty Museum launched the Online Scholarly

Cataloguing Initiative (OSCI) in 2008. Funded participant museums include the

Art Institute of Chicago; the Arthur M. Sackler and Freer Gallery of Art; the Los

Angeles County Museum of Art; the National Gallery of Art, Washington, D. C.;

the San Francisco Museum of Modern Art; the Seattle Art Museum; Tate Gallery;

the Walker Art Center; the J. Paul Getty Museum; and the Indianapolis Museum

of Art (The Getty Foundation, n.d.b). By supporting models developed internally

and amongst participants, the initiative aims to facilitate development of a

diverse set of informed, thoughtful, and sustainable models that demonstrate

transitions from print to digital cataloguing of collections by art museums:

> The publication of scholarly catalogs has long been a critical part of a museum's mission. Based on meticulous research, they make available detailed information about the individual works in a museum's collection, forming the building blocks for a museum's public activities and ensuring the contents a place in art history (The Getty Foundation, 2012).

The newly enhanced catalogs should aim to incorporate up-to-date scholarly

writing and information, especially new discoveries, and to link to local

information like the museum's home page and potentially even other

organizations, collaborators, artists, or digital catalogs. They should be

documents based on scholarship and inform new theoretical and aesthetic

developments in academia and the professional art world.

According to the 2012 Interim Report, participating museums have

implemented a variety of cataloguing models subject to institutional

requirements, the form and needs of their collections, and aspects thereof that

they aim to foreground (The Getty Foundation, 2012). The OSCI Interim Report

also states that it "hopes to demonstrate that when art museums collaborate on

innovative models for online scholarly catalogs, they will dramatically increase

access to their collections, make available new, interdisciplinary research, and potentially revolutionize how object-based research is performed and utilized" (Ibid.). Opportunities that differentiate digital catalogs from books, for increased access and utility underpinned by more and higher resolution images of artworks, easy updating, and the potential to broader audiences, contrast with challenges related to concerns about assuring quality of content and scholarly legitimacy, sustained rights to reproduce images, and preservation or the maintenance of technological integrity over time.

The report stresses the importance of collaboration within and amongst institutions in regards to these practical, technical, and legal issues. In keeping with the philosophy that experiences may be leveraged across institutions, the report includes a discussion of six essential "Lessons Learned" (The Getty Foundation, 2012, pp. 14-27): Remember that Online Publishing is Real Publishing, Choose a Manageable Project, Understand Your Content, Integrated Technology, Have the Right People and Structure, and Think Sustainably. The report concludes with "Inside Perspectives," a section in which a representative of the J. Paul Getty Museum, Los Angeles, stresses the socio-technical work required for successful implementation of rich online catalogs (The Getty

Foundation, 2012, pp. 28-31). Curator at the Art Institute of Chicago Gloria

Groom continues, describing her institution's public interface:

> …we are presenting the raw data from which we have drawn our
> conclusions and thus opening the conversation to include the reader, who
> is armed with the same photographs, macros, overlays, and tools as the
> curator, and can now take an insider's look at any given work (The Getty
> Foundation, 2012, p. 29).

The Art Institute has chosen to foreground its collection of Impressionist

paintings and drawings, and its wealth of digitized conservation and

preservation documentation of the collection. The OSCI homepage cites Sam

Quigley, The Art Institute of Chicago's Vice President for Collections

Management, Imaging, and Information Technology, who affirms his institution's

goal as one of building and publishing a "360-degree view" of each designated

work comprised of a multitude of "analytical evidence that informs modern art

historical discourse" (The Getty Foundation, n.d.a).

A preview of the Art Institute's online catalog, still under development as

of June 2013, demonstrates such richness and potential in two "Works of Art"

entries that examine paintings by Claude Monet (Groom, 2011). The catalog's

painting entries resemble electronic pamphlets or chapters in e-books that can

be read linearly, backwards and in reverse, with pages that "turn" to the left as

the reader scrolls right, and vice versa. Their design and contents demonstrate their independence from the Art Institute's website, but situating its Impressionism collection in the Art Institute's institutional material history, the catalog's paintings entries depict them as complex objects that participate actively in the Art Institute's collective narrative. Their aesthetic meaning and value are compounded by their provenance and relationships with the Impressionist collection as well as other collected works.

The catalog directs readers through its narrative structure but also presents and labels primary documentation of the works it represents in an Other Documentation category accessible at the end of the catalog or through a hyperlinked table of contents; it includes a detailed descriptive inventory of images of the work described, and transcriptions as well as scanned images of labels. Even if a label or the back of a photograph appears not to betray new information, it may reveal details relevant in some specialized context, or just later. Erroneous transcription, typographical cues, or on the other hand sustained or repeated reading may also serve a researcher in unpredictable ways. Access to multiple sources, each of different remove from the object of interest, appear integral to the Art Institute's vision of thorough scholarship. The

catalog ends by addressing potential questions about its application to future

scholarly work, providing a rubric for citing paragraphs rather than pages to

properly credit the catalog in its "back matter" (Groom, 2011, para 59-66). More

closely aligned with the entry's narrative rather than a given page, the atomic

unit of the Art Institute's catalog is the paragraph, which researchers may cite in

lieu of a page number a stable online address.

Walker Art Center

Since its founding in 1927 the Walker Art Center has acquired more than 12,000 artworks including paintings, drawings, sketches, photographic prints, prints, film, video, books, sculptures, sets and installations, as well as pieces and sets of each type of artwork. With a strong focus on contemporary visual art that dates to the 1940s and an increasingly multidisciplinary scope since the 1960s the museum has more than doubled in size during the second half of the twentieth century (Walker Art Center, n.d.c). The museum has undergone major structural changes, its 1927 building replaced in 1971 by Edward Larrabee Barnes's distinctive "tower-like" design, expanded in 1984, and renovated in 2004 by prestigious architecture firm Herzog & de Meuron (Walker Art Center, n.d.b). Today the Walker reports sixty or seventy acquisitions per year, and its programming also includes new performances, lectures, screenings, and temporary exhibitions. Adjacent to the Walker, the Minneapolis Sculpture Garden dates to 1988, expanded from four to its current eleven acres during the Walker's 2004-2005 renovation (Walker Art Center, n.d.b). The museum complex also includes a theater and a cinema (Ibid.).

Under present director Olga Viso's leadership the Walker Art Center re-

launched its website in December 2011. In her introduction to the museum's

new website "Idea Hub: Introducing the new Walker website," Viso writes of the

museum's intent to "make visible our role as a generative producer and

purveyor of content and broadcast our voice in the landscape of contemporary

culture" (2011). The website was met with excellent reviews even from art and

museum critics known for their counter-cultural leanings and outspokenness.

Popular (and anonymous) blogger and Tweeter MuseumNerd describes the

Walker's web designers success, in positioning the website "at the center of the

global conversation about contemporary art," on the *Artlog* blog (MuseumNerd,

2011). MuseumNerd continues:

> By placing the content of others (as well as excellent editorial content of
> their own) right there on the homepage, they've created a website you
> want to go to if you have any interest in contemporary art, regardless of
> whether you'll ever visit the museum.   They're not just positioning
> themselves as an arbiter of taste… the Walker is also placing themselves
> [sic] at the center of the conversation that their mission is all about (Ibid.).

Not only does the museum publish information to attract and serve the needs of

potential physical site visitors, reinforcing its physical site's role, former Walker

magazine editor and current web editor Paul Schmeltzer selects, describes, and

publishes journalistic material produced internally and elsewhere on the

Walker's website's homepage. Schmeltzer's contributions serve as an editorial linchpin, connecting the Walker to an international art world. New media director Robin Dowden and senior web developer Nate Solas discussed the redesign in the MuseumNext 2012 keynote address. Dowden and Solas identify what they describe as a new distinction, of those who are looking for information about visiting the physical location of the museum from those who are web-only visitors (Dowden & Solas, 2012). The new model, they explain, looks more like a traditional publication with "most important" information, about open hours and ongoing programs at the top left, and material that may be browsed or read casually and for research purposes centered on the page. They describe challenges inherent to reducing or translating the museum's multiple departments to a single plane or page as political, bureaucratic, and design conflicts (Ibid.).

The homepage[3] demonstrates the Walker's synthesis of its own multiple parts and integrates an external, international "art world" into its self-presentation. Beneath the largest and boldest text on the page, which simply reads WALKER, open hours and links to information about the Walker Art

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3 http://www.walkerart.org

Center's current and ongoing events line the left-hand side of the page. Above the title and calendar listings, images highlight featured information about sponsorships and new programs. Right of the title the temperature and weather conditions in Minneapolis, the Walker's home town, top a banner menu that suggests six categories for consideration, from left to right: Visit, Exhibitions & Events, Media, Collections, Join, and the option to search for text, which is represented by a magnifying glass. The body of the homepage includes a slideshow of images that describe and link to featured Walker web content, especially current program highlights but also news relevant to the Walker and Minneapolis's art community. Scrolling down reveals "Art News from Elsewhere," a selection of links to Schmeltzer's contemporary art news articles identified by abstracts, and occasionally by images. External news sits atop a section devoted to similarly segmented and dynamic content from the Walker's blogs, presented in rectangles with images atop titles illustrating the linked content.

Beneath that grid, which extends for several rows, lies a quote attributed to an artist that also links to a Walker page relevant to a current exhibition. The footer of the page presents the Walker's mission statement as well as three lists

of links entitled About, Programs, and Network, which roughly correspond to those banner categories that frame the head of the page. The base of the page also includes a copyright notice, the Walker's address and phone number, and a link to more contact information. The homepage, as a composite, neatly incorporates abstract and concrete information about the museum's programming, geographical position, as well as information required to access it physically or intellectually.

Back at the top, hovering my mouse over a given text field in the banner menu generates a corresponding drop-down window. Clicking the magnifying glass yields a search field into which I may enter a string of characters; additional search options that correspond to the string vary but may include 'collection walker art' or 'collection for stockholm' (the latter refers to an artwork by Sol Lewitt). The number of relevant "results" appears in a gray banner above an annotated list identifying them individually.[4] A search for "collection" produces 14,820 items in July 2013, including Works of Art (12,211), Writings (1390), Other (726), Events (340), Walker Shop (112), and Audio/Video (41). Each of these categories may be further divided into sub-categories. Works of Art results

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4 http://www.walkerart.org/search/?q=collection

have been broken into more than twenty categories, including one subcategory

called Works of Art. Subcategories of Other results include Press Releases, pre-

2004 Web Archives, Pages, Collections, Publications, Position Descriptions, and

"Regis Dialogues and Film Retrospectives." Web Archives are further divided by

year from 1999 to 2004[5], and Pages are subdivided according to genres or

modes of works collected by the museum, including Visual Arts,

Architecture/Design, Film, New Media, and again, Other. With such a highly

faceted, even duplicated classification schema, the documents that comprise the

Walker's site are multi-faceted, available by browsing categories and

subcategories as well as by full-site and more limited searches. In this way,

multiplicity and heterogeneity may support decentralized consideration of

website content, residual work, and reciprocally, the website might welcome

multiple reader perspectives, but institutional guides are never out of sight.

COLLECTIONS

Hovering my mouse over the Collections tab generates a drop down

menu that features a visual representation of the Permanent Collection (labeled

with a transparent overlay as "NEW COLLECTIONS WEBSITE

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5 http://www.walkerart.org/search/section/other/type/web-archives-pre-
2004?q=collection

walkerartcenter.org/collections"); titles of three distinct collections catalogs are listed to the right of this image: the Permanent Collection, Gallery 9 (Digital Media), and Ruben/Bentson Film & Video Study Collection. Most of the window is occupied by an image of the Permanent Collection, which links to the Collections homepage. The relationship of the Permanent Collection to the other two is unidentified. The window offers no links to archived online collections, to information about printed collections catalogs, or to any sub-collections of the Permanent Collection.

Ruben/Bentson Film & Video Study Collection
        The Walker Art Center began collecting films and videos in 1973, at the bequest of Edmund and Evelyn Ruben, patrons who also served as museum trustees. The Ruben's daughter and son-in-law, Nancy and Larry Benson, continued the family's legacy with two major donations including a 2011 gift targeted especially at "presentation and preservation" of the collection (Walker Art Center, 2011). The Ruben/Bentson Film and Video Collection, according to the Walker's website, currently includes nearly 900 items that date from "the beginning of film to the present" (n.d.g). Its collection page features an essay illustrated by an image of several frames on a filmstrip attributed to artist Joseph

Cornell, who is better known for shadow box sculptures (Ibid.). As digitization of the films and videos for online publication remains a work in progress, this is a collection without a cohesive online presence beyond its single representative page. And rather than standing apart this page acts as a member of the Walker's main website, links along the left side of the page demonstrating the collection's membership in the museum's Film/Video department, and suggesting relevant browsing categories that relate the page to articles, upcoming events, the Walker's contact information, and blogs. The structure of the collection's representative webpage marks it as an expandable, integrated placeholder.

Gallery 9 (Digital Media).

Gallery 9[6] on the other hand has figured prominently into the Walker Art Center's website since the founding of the museum's New Media Initiatives Department in 1996 (n.d.f). Described on its homepage as an "online exhibition space," Gallery 9 today emulates and connects dispersed elements of the project that remained an active part of the museum's curatorial work until 2003 and continues to bolster its reputation a decade later (Ibid.). Hosted by the Walker on its own server as evidenced by its uniform resource locator (URL),

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[6] http://gallery9.walkerart.org

visual cues that frame the digital media gallery also distinguish this Collection

from the contemporary Walker website. In fact Gallery 9 appears in 2013 as it

has since early 2004, upon the Walker Art Center's architectural and online

overhaul. A black bar heads the home page, "Walker Art Center" printed inside

of an arrow that points left, or back, to the museum's homepage. Beneath the

header another arrow points down towards links to the gallery's elements,

featuring a textbox of fixed dimensions and its brief overview of Gallery 9's

relevance. A line distinguishes introductory sentences from an excerpt from

Steve Dietz's 1998 introduction to the Walker's online initiatives and the text

concludes with a link to the Walker's online archives, a set of pages that

demonstrate how the museum's website appeared and responded to online

visitors in 2004.[7]

Beneath the text-box arrow the set of elements that comprise Gallery 9

appears as a neatly articulated set of squares organized by color, graphically

reminiscent of early debugging alerts. A key at the base of the page identifies

the colored squares as artworks (blue), archives (olive), people (red), writings

(orange), exhibitions (green), themes (yellow), and projects (aqua). Hovering my

7 http://www.walkerart.org/archive/2/9A336B34C4FCFE006161.htm

mouse over a given square produces the title of its corresponding page; clicking it calls that page to the screen. Each of the pages in turn acts primarily as an organizing mechanism for relationships, comprising text, images, and original as well as recently updated links to the page's subject or object and related material.

Gallery 9 is a major hub, an emulated archive of its original content and links. Connections from this site to the current Walker site are predominantly historical and archival, but they work. In some cases, a page describes the object it stands for, identifying its location, start or creation date, details of its relationship to the Walker site, or technical protocols and requirements involved in its creation or required to access to it. In others, like writings, the pages are the objects they present. The incorporation of multiple forms of hypertext, as links embedded in natural language and evident in strings of characters that name URLs, expands the function and definition of text itself, as Star and Bowker put it (Bowker & Star, 2000, p. 109). In this way Gallery 9 confuses the collection-catalog distinction, presenting the original artwork and organizational infrastructure, acting as images of both.

Permanent Collection

The Walker website's Permanent Collection[8], unlike technology-specific collections to which it is adjacent, features neither prefatory text nor introductory visual cues. Instead its homepage greets me with a set of equated images, and I look to its classification schema, and the values and dimensions attributed to it, to understand the components and reading for which it is optimized. Key to my interpretation is awareness, if not mastery, of the layers of meaning as well as mediation the museum must cultivate in translation its collection online.

The header of the Permanent Collection homepage identifies it as distinct from, but a part of the Walker Art Center website, featuring in bold print in the top left corner the title of the museum (and link to its homepage), Current weather conditions in Minneapolis follow to the right. Links to browsing categories, the homepage's banner menu, including the option to search, hover at the top right-hand corner of the window. Beneath, the Permanent Collection offers the opportunity to search just Collections, or the entire Walker site. Indeed the museum title, weather in Minneapolis, and featured browse and search options are a constant across the tops of all Permanent Collection pages,

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[8] http://www.walkerart.org/collections

whether they represent pre-established sets of artworks, search results,

individual artworks or artists whose works figure into the collection.

Unlike the homepage and the new media content pages that populate

more prominent parts of the new site, however, the Permanent Collection does

not include links back to the website beyond the header; no footer reproduces

its mission or contact information. Instead, as stated in the Walker's Online

Scholarly Cataloguing Initiative proposal, the Permanent Collection focuses on

presenting acquisitions made since 2005 when the Walker re-launched its

website and the institution published in print its most recent collection catalog,

Bits & Pieces Put Together to Present a Semblance of a Whole: Walker Art

Center Collections (The Getty Foundation, n.d.b). Some duplicates of Gallery 9

elements (and perhaps records for future digitized films and videos too) have

been integrated into the Permanent Collection catalog without markers like

links, images, or other design elements to denote them as such, or as available

elsewhere. The Permanent Collection poses a contrast to an open, connected

flow of information, situated within but apart from the website, searchable but

self-contained. It demonstrates an insular and collapsed formula for information

about the objects that lie beyond the website's bounds; immediately evading

any demonstration of difference amongst objects, the collection catalog fits them into near-identical frames.

By default, only artworks for which digital images are immediately available appear in an online Collections reader's window. Representative images are arranged as tiles in an irregular grid, which is complicated by their variable sizes. The reader may see two or more columns at once, depending on the width of her browser window. The grid contains rows that, as required by the number and size of images to be displayed, disturb my concept of the space they occupy; they appear to extend below the visible page so that I see only one immediate frame of an immense immaterial scroll. The Collections layout is fluid, not fixed, so rather than require horizontal scrolling the grid's width adjusts horizontally to fit the browser winder; a narrower browser window necessitates a longer grid row-wise. To see each image or tile, I must scroll through until I reach the last row – a task that may seems unending, particularly if my computer is slow to load rows below the first few frames. Hovering my mouse over any of these images calls up a tab or label from its base. Like those that might appear with the work on a gallery wall, which are dubbed conventionally "tombstones,"

they identify the title of the work, the name of its creator or artist, and its creation year.

According to dropdown menus, the 4,067 artworks represented online by images include artworks dating to each decade since the 1880s, which may be further limited according to their assigned Decade (i.e., the decade of their creation) or Type (i.e., classification as a member of one following category: Books, Drawings and Watercolors, Media Arts, Mixed Media, Other/Miscellaneous, Paintings, Photographs, Prints, and Sculpture). With 1,563 items, Prints is the largest category; the sparsest is Books, with 66 items. Representations of any given category may be arranged in ascending or descending order according to four factors: Date Acquired, Date Created, Title (meaning alphabetically), and Size.

De-selecting a small box adjacent to the Type and Decade menus labeled Has Image expands the set of browse-able Permanent Collection artworks to include artworks not represented online by one or more images to 12,329 representations (as of June 2013)[9]. Where images otherwise represent individual artworks, gray circles of various serve as placeholders. Artworks now

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[9] http://www.walkerart.org/collections?has_image=false

date to the 1810s and 1830s, with one item each; 6,409 items that date to the 1970s and 1980s appear to represent more than half of the entire collection of representations. The collection includes 5,660 Prints and 1,615 Books without images, while Other/Miscellaneous is now the smallest category, with only 205 items (107 of which have images). As a reader I may limit sets of browse-able items by making successive selections from Decade and Type drop down menus that identify how many artworks fall into each category. I may reorganize the selected sets in order of Acquisition or Creation Dates, Size, or Title. Again, all or some pre-defined selection of artworks may be called up. 1,032 of these are Photographs from All Decades and 140 are Photographs from the 1960s[10]; 374 Photographs have images[11], and forty-nine of them date to the 1960s[12]. Unmanageably large sets become smaller and easier to read, and artworks easier to distinguish and examine as I narrow categories and thereby whittle away at them.

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[10] http://www.walkerart.org/collections?has_image=false&type=Photographs
[11] http://www.walkerart.org/collections?has_image=true&type=Photographs
[12]
http://www.walkerart.org/collections?decade=1960&has_image=true&type=Photographs

The museum collection catalog fixes a collection in space and time, and further compresses its "hodge-podge" of signification and materiality, to borrow Adorno's term (1981, p. 123). It fits the collection's elements on pages, in one or more volumes, offering all artworks equally and simultaneously the opportunity to be seen and considered, or else passed over, ignored. The catalog makes looking that cannot take place in a museum building possible – most components of museum collections are not on view or described when absent – even while thwarting it, belaboring incomplete images with directive metadata. Over time the form of the collections catalog has evolved, reflecting institutional and technological evolution and related effects on museum accessibility, documentation, and work, more generally. In the early twenty-first century digitized or digital databases document sets of properties of collection components. Parallel systems may comprise photographs and digital images of the collection, records of conservation work or descriptions of preservation needs.

Despite the Collections page's regular presentation of irregularly sized rectangles and circles across categories and subsets thereof, its representative squares are reminiscent of the standardized Gallery 9 squares. Even more

striking is the metaphorical resemblance of the Permanent Collection page to a graveyard peppered with images and their tombstones, which recalls Theodor Adorno's storied discussion of the tense relationship between the museum and mausoleum in his essay on art museums in the early twentieth century, "Valéry Proust Museum": "Works of art can fully embody the promesse du bonheur only when they have been uprooted from their native soil and set out along the path to their own destruction" (Adorno, 1981, p. 133). The museum, he explains, serves as a mausoleum for art; without the museum, on the other hand, art disappears into oblivion – lost, deteriorating, or simply forgotten. The museum-mausoleum preserves and neutralizes culture by regulating aesthetics (Ibid.). It complicates a conflicted relationship between superficial orderliness and neutralization imposed by white walls and "tombstones," and art's irreducible profundity.

The immediate tensions between the unique aesthetic significance of each work and its status as a mere member of a collection, its singular cultural contribution and simultaneous equation with all elements that surround it in the museum, hint at potential phenomenological confusion. Even focusing on enumerating sets of the Collection and their components or elements threatens

a key distinction, what Benjamin called an "ontological rift," and which Mak

(2012) describes as especially profound in the case of digital presentation

"between facsimile and the object that is being imitated" or here, between the

museum's collection of artworks and their collective presentation in the

collection catalog, and eventually the actual artwork and its page in the

Permanent Collection (Mak, 2012, p. 66). What is the extent of the collection of

artworks, and what is its relationship to the collection of images or

representations? What is the extent of the artwork, and what is its relationship to

the museum?

Sorting and Sets

Although perhaps obvious enough at first blush, engaging the four

sorting options, Creation Date, Acquisition Date, Size, and Title, results in

unexpected confusion. Creation Date is fairly recognizable, as each artwork in

the collection features a Date on both labels that appear on the main

Collections grid, and on each corresponding catalog page; the Date is either a

particular year or set of years, and in the case of the latter, the latest year

determines the artwork's chronological place in the Creation Date Sort and in

Decade categories. The Art Institute of Chicago's catalog, which incorporates

sketches and discloses the significant revisions that contribute to a final painting's appearance, attests to the tenuous nature of a single Creation Date; to this we return in the end. Acquisition Date, however, demands immediate investigation – the Walker's works' acquisition dates are not explicitly labeled, but they appear to be incorporated into a dimension or value identified on artwork pages: Accession Numbers.

Of 1980s Prints sorted in descending order by Date Acquired[13], for example, a 1989 lithograph on paper by Robert Motherwell with accession number 2000.189, "Mirror 1A"[14], precedes "Mirror 1"[15], with accession number 2000.188. I might infer that the first four digits represent the Acquisition Year, and those after the dot indicate the artwork's position in the order of acquisitions or accessions made that year. These Motherwells, in other words, might be the 188th and 189th artworks acquired by the Walker in 2000, when the prints were eleven years old. Tracing the implications of this pattern, I deduce that the Walker acquired several Motherwells that year, in groups or in close

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13 http://www.walkerart.org/collections?decade=1980&has_image=false&order=desc&order_by=Date+Acquired&type=Prints

14 http://www.walkerart.org/collections/artworks/mirror-ia

15 http://www.walkerart.org/collections/artworks/mirror-i

proximity, and that in fact several more lithographs on paper like "Mirror 1" and

"Mirror 1A" preceded them in joining the collection, while a set of the artist's

copper printing plates – still Prints – succeeded them immediately. Or,

Motherwells acquired at the turn of the twenty-first century were processed and

entered into the system in batches.

However, my observations regarding accession numbers and ordering are

complicated by notable irregularities, perhaps inconsistencies in dating.

According to a sort of 1980s Prints by Acquisition Date (with and without

images), the first acquisitions were Robert Morris's 1986 "Earth Projects (Mounds

and Trenches)"[16] and "Earth Projects (text sheet)"[17]. Like "Mirror 1" and "Mirror

1A" above, these are also described as lithographs on paper. But Morris's works

have been labeled with accession numbers 1970.25.1 and 1970.25.11,

indicating they were accessioned into the Walker's collection well before their

Creation Date, according to my theory. Searching by title it appears that these

two works joined the collection simultaneously with Morris's 1969 "Earth

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[16] http://www.walkerart.org/collections/artworks/earth-projects-mounds-and-trenches

[17] http://www.walkerart.org/collections/artworks/earth-projects-text-sheet

Projects (Dust)"[18], "Earth Projects (Burning Petroleum)"[19], and seven other prints

numbered 1970.25.2 through 1970.25.10. The Collections catalog

representations of each of the eleven works entitled "Earth Projects" (except for

"Earth Projects (text sheet)") also include the "Inscriptions": "BR [bottom right]

'R. Morris/69'; BL [bottom left] '20/125.'"[20]

I may conclude that the problem lies not in the accession numbers, which

reflect consistency in titles and inscriptions evident across the set of "Earth

Projects" Prints, but a dating and consequently ordering conflict is more likely

the result of transcription of illegible handwriting, or an obvious but duplicated

typographical error. A 1986 work, after all, was unlikely to have become part of

the Walker's collection a decade and a half before it was made. I may simply be

wrong, and without any more information I am unable to verify my hypothesis or

disprove it. The scripts that determine order for each automated Sort call on

incomplete information, the source of which is not available to readers.

Individual artwork records bear "Dimensions" that, like the Size sort,

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18 http://www.walkerart.org/collections/artworks/earth-projects-dust

19 http://www.walkerart.org/collections/artworks/earth-projects-burning-petroleum

20 http://www.walkerart.org/collections?has_image=false&q=earth+projects+morris&utf8=✓

seems to reflect some aspect of their material extent that is independent of the size of their digital images. But some invisible or at least obscured set of an artworks' dimensions allows me to order by Size, which reflects some undisclosed set of an artwork's dimensions, like the height, width, and length of a case of film or of an asymmetrical high-relief sculpture, or just the area of an open book's face; it neither describes the length of film inside the cassette nor its run time, the volume of a concave shape, the number of pages in a bound text nor its thickness. The Dimensions of most Media Arts artworks, which include online and other forms of digital art, are not published, and incompatible Ascending[21] and Descending[22] Sorts block me from reaching any generalizable conclusions. But for material objects Size appears determined most frequently by the area of an artwork's face in the case of flat objects like drawings and photographic prints and slides, and by volume in the case of bulkier objects like videocassettes and sculptures. As I will demonstrate, neither are Dimensions measured nor Sorts ordered consistently even across Type.

21
http://www.walkerart.org/collections?has_image=false&order=desc&order_by=Size&type=Media+Arts
22
http://www.walkerart.org/collections?has_image=false&order=asc&order_by=Size&type=Media+Arts

Beginning with a simple example, a Mixed Media button attributed to Lynn Hershman, entitled in the Permanent Collection "untitled from Objects from Roberta [Roberta button]," measures 1.25 × 1.25 × 0.1875 inches[23]. Meanwhile, the suggested next largest Mixed Media item is a color transparency from the same series, "untitled from Objects from Roberta [slide of Roberta]," the area of which is stated to be 1.25 × 1.375 inches[24]. While the first is more voluminous, according to stated dimensions, the latter, with a stated volume of zero (regardless of the impossibility of such a statement), has a larger face.

More revealing is my investigation of the Size of disparate objects identified as Sculpture. First, Kiki Smith's "selections from Animal Skulls," consists of "Cast skulls of small animals with gold leaf applied to the teeth," according to the catalog's Physical Description[25]. Named Dimensions of Smith's work are simply "19 various sizes."[26] Order is both more and less inscrutable a category, the set of skulls appearing larger than a 456-inch (38-foot) steel

[23] http://www.walkerart.org/collections/artworks/untitled-from-objects-from-roberta-roberta-button
[24] http://www.walkerart.org/collections/artworks/untitled-from-objects-from-roberta-slide-of-roberta
[25] http://www.walkerart.org/collections/artworks/selections-from-animal-skulls
[26] from http://www.walkerart.org/collections/artworks/selections-from-animal-skulls

sculpture, "Molecule," by Mark di Suvero[27] but smaller than David Lamelas's

"Limit of a Projection I"[28]. Lamelas's sculpture, a "theater spotlight in darkened

room" might consist of a purpose-built "dark room" or a presentation condition.

Its named Dimensions are even more vague – "diameter variable" – than the

enumeration of parts offered by the "selections of Animal Skulls" record. A first

image demonstrates a patron interacting with Lamelas's projection inside the

museum building, a young man marveling at his shadow inside the yellow circle

of light cast from above; the projected light appears in another, of a theater

spotlight projecting a cone of white light, unoccupied by external indicators of

scale. A single image of di Suvero's steel sculpture, on the other hand, shows

the work on view outside, in a park that may be the Minneapolis Sculpture

Garden – indeed its Dimensions indicate it is too tall for storage inside an

average gallery space. Meanwhile one image presents Smith's skulls, arranged

into three rough rows on a white background, and lit from above against. The

image and catalog more broadly provide no explicit external indicators of scale.

Unacknowledged, variable and incommensurate dimensions and characteristics

of artworks recede, information to be skirted or even avoided.

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[27] http://www.walkerart.org/collections/artworks/molecule
[28] http://www.walkerart.org/collections/artworks/limit-of-a-projection-i

Further complicating the matter, Dimensions of some artworks correspond to a particular presentation, as is the case for "Object Poems," a "lithograph on paper": "open 21.8125 × 29.75 inches"[29]; or "Catalogue 1969-1970," a "staplebound" book, with Dimensions of "overall 9 × 4 inches"[30]. Still others are identified with Dimensions that include references to specific material facets of an artwork, as in the case of George Maciunas's lithograph on paper, "FluxFest Sale": "sheet 22.0625 × 17.0625 inches."[31] Noticing varied inconsistencies and incompatibilities with my mental models for the catalog's dynamic mechanisms, as an engaged reader, I might dismiss them as such rather than reconfigure my understanding of the system.

Organizing artworks alphabetically or in reverse alphabetical order, finally, Title exposes a form of order-less order based on an artwork's most superficially bestowed attributes. More than twelve hundred artworks, including sketches and studies for sculptures and installations collected by the museum, fall together for the simple fact that they are identified as "untitled." For example, Dan Flavin's 1963 "untitled" is a sculpture consisting of fluorescent tubes and

29 http://www.walkerart.org/collections/artworks/object-poems
30 http://www.walkerart.org/collections/artworks/catalogue-1969-1970
31 http://www.walkerart.org/collections/artworks/fluxfest-sale

fixtures. According to the artist, quoted on the artwork page's Object Label, his

attitude towards labeling, like the work itself, is formally minimalist:

> Electric light is just another instrument. I have no desire to contrive fantasies mediumistically or sociologically over it or beyond it. Future art and the lack of that would surely reduce such squandered speculations to silly trivia anyhow…[32]

In close proximity, on the other hand, Yves Klein's "Untitled" is a "102.5-inch"

paint tray "used to paint models before the creation of an Anthropometrie

painting" which, according to its Credit Line, was donated to the museum by

the artist's estate after the author's death[33].

Whether the artist, museum policy, or cataloguers who needed to fill

mandatory fields on an accession record bestowed the Walker's twelve hundred

works with their "untitled" labels[34], or even if the labels were another authority's

decision, the online catalog does not reveal its multiplicity of sources. Worse,

the catalog violates archival principles and the CCO in neglecting to relate

either the details of an artwork's provenance or relevant resources. At best the

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[32] Citation given at http://www.walkerart.org/collections/artworks/untitled-2217: "Label text for Dan Flavin, *untitled* (1963), from the exhibition *Art in Our Time: 1950 to the Present*, Walker Art Center, Minneapolis, September 5, 1999 to September 2, 2001. Copyright 1999 Walker Art Center."

[33] http://www.walkerart.org/collections/artworks/untitled-265

[34] from http://www.walkerart.org/collections?has_image=false&q=untitled&utf8=✓

catalog identifies artwork donors and image rights holders. I can infer that a naming convention employed purposefully, as a generic catchall, immediately juxtaposes disparate objects, but not that the museum has mastered its collection intellectually or materially.

In this way the catalog betrays what Star and Bowker (2000) liken to component parts of the "shadow side" of classification systems, the inevitable barriers to their completeness. There are three particular characteristics that tie a conceptual classification to its material realization, precluding its unsullied execution: (1) "Data entry as work"; (2) "Convergence between the medium and the message"; and (3) "Infrastructural routines as conceptual problems" (Bowker & Star, 2000, pp. 107-8). These characteristics may also be described as cultural biases and omissions as well as mistakes made by people in the socio-technical systems to which they contribute; limitations imposed by storage and presentation capabilities of media; and finally, even mild incompatibilities in systems of record-keeping and content management that betray their incompleteness and mean "true universality is always out of reach" (Bowker & Star, 2000, p. 108). Also affirming Mak's (2012) rule that transcriptions are more than translations of media, the potential impact of error even in the form of a

simple typographical mistake in an accession number might extend well beyond

a single field on a page and could affect the entire collection's organizational

integrity; it may equally reflect internal errors or just a different set of protocols

than the ones I can guess at. Information, in other words, bears the overlapping

traces of its situated origins; or worse, it might hide the traces, deteriorating the

information's value.

In discussing reader response to narrative fiction, Wolfgang Iser's writes

that "the act of reading is … a process of seeking to pin down the oscillating

structure of the text to one specific meaning" (1989, p. 8). The greater the gaps

between segments, he continues, the more indeterminacy and therefore more

reader interpretation required; thus for him the meaning of the text is co-

determined by the reader. Iser's (1989) theory resonates with Drucker's (2013)

proposal to incorporate analysis of materiality as engaged and performed,

involving multiple layers of mediation that would include, in this case, activation

of digital images, scripts, and text that mark them (metadata), and the data and

remote servers that underpins my ability to access them, as well as my own

networks, software, and hardware.

A collection-as-material-text acts as a boundary infrastructure, an un-fixable assemblage, which reflects the multiplicity of authors that composed it, and that use it to perform their work. When the text itself, forever a work in progress, oscillates without cues as to when, how, or why it appears or changes, the point at which meaning coalesces for me - my very situated position - fails to stabilize it. Inconsistencies in the system therefore affirm a disconnection of artworks from their representations in the museum's database or online, they do not just betray it. The disconnect is impossible to diagnose. The script that determines each automated Sort calls on obscured information so even when provoked to do so I fail to connect with "real" or reliable dimensions or characteristics, which might correspond to accession numbers, creation dates or in the case of conceptual art like Dan Flavin's, dates of original exhibition; the size of housing artworks require (like boxes and folders) or their footprint when on exhibition in the museum space; and the alphabetical order of their variously assigned names; or just as likely, to another system of measurement and evaluation entirely.

Mak puts it succinctly: "The entire expression of the digital page is built upon relationships that are both created and concealed by computational code"

(2012, p. 18). Just as images cannot be equated with their subjects in any way, measurements are not equal to the space occupied by the objects to which they correspond. My inability to access how the museum has translated its collection's meaning into the catalog's underlying data and classification infrastructures produces frustration compounded by my compulsion to write about it in the third person. But unlike a book, aspects of a museum collection have always been obscured from plain, public sight. The problem is the false illusion of proximity.

Artworks: Parts of the Whole

The Walker's Permanent Collection catalog comprises artworks represented collectively on the Collections homepage, and individually on pages that correspond to the thousands of images and captioned gray circles. The artwork pages reflect their context in the Walker's website, featuring the same abbreviated header as the collections pages that evokes the Walker home page and its featured navigation categories, while still invoking the reader bodily to the museum's site with Minneapolis's current temperature and weather. Beneath the header, a search field illustrated by a magnifying glass again presents the opportunity to search All Walker or Collections; automated

suggestions appear as one enters common search or collections terms. Typing 'l' yields an incongruous list of words including 'library,' 'lithograph,' 'lewitt' and 'like,' which suggest interests in what may be a museum department, a medium, and an artist; 'like' could be an element of a title, and artist's or rights holder's name, or it might reflect a reader's interest in understanding whether the catalog, as an information system, prioritizes access that reflects taste of some party that has a formalized relationship to it. The website invites my virtually embodied reading on every page, but it guides even my most personal interactions with it. An increasingly common affect of both non-profit and commercial art classification systems, this is a structuring mechanism I hope to be able to return in the future.

Under the header the page names the represented artwork explicitly as a Walker collection component: "Collections > [Title value]." Just beneath the title sits a photograph of the artwork that might be one or a slideshow of digital photographs; otherwise a larger gray circle reiterates the message that no image is available. Double-clicking and plus (+) and minus (-) symbols to the left of the image's frame allow the reader to zoom in and out of high resolution digital scans and photographs of artworks. Indeed, I am able to see a face of an

51

artwork's detail and texture at a proximity I could never approach in the museum

building, even if it were on view. Mousing over an image pulls up from its base a

tab labeled "Image Rights >" that, when clicked, brings a small white window to

the foreground, and dims the appearance of the catalog page and its contents

in a shadow box effect. Within the window are the image's rights holder, i.e.,

"Image: Courtesy Walker Art Center," and the hyperlinked name of the

artwork's license holder, i.e., "Rights: Art © Estate of Marcel Broodthaers/VAGA,

New York, NY"[35]. Photographs themselves, while often extremely striking, are

unidentified except proprietarily. Otherwise, gray circles sit atop the phrase "No

Image Available," with an informal phrase, sentence, or short paragraph

appearing below, copied from a work's Physical Description field when one is

included further down a given artwork's page.

In either case, images or their placeholders occupy the Walker's

Collections page's most immediate and valuable real estate. In addition to the

consistency of their visual prominence above the fold, the images depicting

artworks demonstrate attention to legal or bureaucratic transparency, but not

documentary integrity; the images and surrounding metadata do little to

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[35] http://www.walkerart.org/collections/artworks/pipe-a

distinguish themselves from their artwork counterparts. According to CCO standards, images of artworks stand apart from but related to artworks and their catalogue records, a key relationship and distinction especially when artworks themselves depict and allude to others, and equally as images of artworks stand for them demonstratively and metonymically (Baca, et al., 2006).

To the right of the rectangular frame in which the artwork appears, black and gray information icons containing the letter "i" disappear when moused over; the word "INFO" sits just beneath as if to disclose their purpose. These icons and the surrounding region of the page are hyperlinks that allow the reader to navigate quickly down, to the bottom of the page, where text supplies more fragmentary information about the artwork or object represented. Immediately beneath the field containing the image or gray circle appears a set of attributes in gray and corresponding values in black. In the left-hand column these include Title and Date, explored in part above, as well as Artist, which may include one or more names; to the right appear Dimensions, also described above, and equally noteworthy, Material, and Location. Except in the case of digital artworks, where Dimensions and Material are not named, all six attributes of artworks are assigned descriptive values. According to their Location, most

artworks are "Not on View"; digital and online artworks may be named as such but not linked.

Type: Digital Media

FRBR (International Federation of Library Associations and Institutions, 2008) standards recognize that collecting institutions do not possess certain objects at the item level. Even if the institution hosts a website or a digital object on its server, it does not catalog each online reader's navigation or interpretation of the site, much less the hardware she uses to access it. In fact, each time I read a given website – even the Walker's – it might have changed somewhat, either updated, or obsolete or incompatible with my web browser and the set of plug-ins with which I am equipped. At the most concrete level it maintains an expression or a manifestation of an Internet-based artwork. For example, the Walker has hosted "äda'web," an early successful online art project, for nearly fifteen years. äda'web's source code dates to 1994, and since 1995 has functioned primarily as a repository or an archives for online art produced by contemporary artists including several for whom the Internet is not a primary medium. Demonstrating the extent of the current reciprocal

relationship between äda'web and Gallery 9, Gallery 9's äda'web page[36]

provides links to thirty-three related pages (where Gallery 9 has hundreds rather

than thousands of pages), including sixteen artworks, five people, four writings,

and nine themes. The body of the page is occupied by a light blue textbox that

contains former new media director Steve Dietz's 1998 preface to the Walker-

hosted iteration of äda'web, *The Three B's*. A single unidentified screenshot

illustrates Dietz's text. Beneath the preface another blue field contains a

"related link" to a New York Times review of the Walker's acquisition, "Putting a

Price Tag on Digital Art"[37]. A gray field further down the page identifies the

date of the G9 launch as November, 1998, the credit line, Digital Arts Study

Collection, Gallery 9/Walker Art Center, and the Walker's relationship to the

website (its "status"): host. The footer of the page reflects the top, identical to

that of the Gallery 9 homepage.

Duplicated records of online artworks like äda'web and others that

comprise Gallery 9 are members of the Walker's Permanent Collection. The

36
http://gallery9.walkerart.org/bookmark.html?id=10600&type=object&bookmark=1
37
http://www.nytimes.com/library/tech/98/11/cyber/artsatlarge/19artsatlarge.html

Permanent Collection's äda'web page reproduces several documents associated with Gallery 9's page for the same artwork – Steve Dietz's *The Three B's*, identified as an "Overview," and the five other writings, including Robert Atkin's text, cited below, which are identified as Essays and by title. These texts may be revealed in expandable text boxes beneath Object Details, as described above. For Gallery 9 these writings are distinct but densely networked pages; the texts are highly structured, subdivided by line breaks and bold headings, and interrupted by key words appearing in bold. For the Permanent Collection, however, copies of certain stylistic distinctions made in earlier texts failed to carry over. [38] Headings transcribed textually but not stylistically do not distinguish shifts in content the same way. Stranger, a full paragraph of the Permanent Collection's copy of *Untitled (ÄDA'WEB)*[39] contains a hyperlink that simply collapses the reading window, and broken links and typographical markings incompatible with my web browser limit its legibility.

Although text that describes äda'web in the Permanent Collection reflects the site's Gallery 9 catalog entry textually, the different collections sites paint

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[38] http://www.walkerart.org/collections/artworks/ada-web
[39] http://gallery9.walkerart.org/bookmark.html?id=140&type=text&bookmark=1

very different pictures of the complex object (or collection). Gallery 9's äda'web page foregrounds and integrates a working network of links into its textual content while the artwork's Permanent Collection page, which replicates Gallery 9's content with a certain degree of accuracy, excludes direct links to Gallery 9's äda'web's and related pages and even to adaweb.walkerart.org. In fact, the only links from the Permanent Collection's äda'web page, aside from one to the previously mentioned 1998 New York Times article and to a digital copy of relevant pages from *Bits & Pieces Put Together to Present a Semblance of a Whole: Walker Art Center Collections*, are apparently accidental, broken, or, counter-intuitively located in footnotes to an Essay reproduced from that print catalog.

Elsewhere the Walker's New Media Initiatives department's webpage describes the role äda'web played in the institution's early interest in collecting and preserving digital cultural expression as a formative part of its New Media Initiatives Program, the same department that more recently led the museum website's (and Permanent Collection's) redesign. A 1998 essay entitled *What is äda'web?* by art historian and online editor and producer Robert Atkins cuts deeper:

> … the Walker Art Center's acquisition provides validation of äda'web's importance... äda'web's "avant-garde" artworks, and a particular moment of "avant-garde" creation, has been institutionalized within a larger narrative of 20th-century art. In the process, the Walker acquires the cachet of owning important contemporary artworks and äda'web acquires the prestige associated with the Walker. This is a familiar modernist progression; no modernist art form--no matter how ephemeral or immaterial--has eluded the grasp of the museum (Atkins, 1998).[40]

While the act of collecting garners recognition for the museum and for the work, or really collection of works that comprise äda'web, the website resisted the act even as it took place. The Walker agreed to maintain the cohesive structural and expressive qualities of the website but consensus about how to do so, and how to respect it as a historical as well as political and aesthetic artifact remain to be reached.

We see artworks here as conceptual museum elements that the Walker's designers have in a sense poured into a mold, or fit into an idealized or theoretical framework. As I will discuss shortly, Artist values are hyperlinks that connect all works to which they are affixed, but the Artist's name is the only consistently available artwork-specific hyperlink, and the only one above the fold (that fits in the browser window's initial frame) that corresponds to the featured

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40
http://gallery9.walkerart.org/bookmark.html?id=10600&type=object&bookmark=1

artwork. Otherwise, it appears independent and discrete. Beneath these fields, which are distinguished by dotted grey lines, each page contains additional text in an expandable (and reducible) gray window labeled Object Details. It identifies another set of information including the artwork's previously discussed Type, Accession Number, Physical Description, Credit Line (which corresponds to Image in the "Image Rights>" tab above), and Object Copyright (which corresponds to Rights in the "Image Rights>" window above). Other attributes named in the field are not redundant and may include Style, Inscriptions, Edition, or Printer, which are variously interpreted to supply available information about the artwork.

In describing the digitization of a medieval text, Mak suggests "designers present [it] in a way that looks unmediated so that the audience is seemingly put in direct contact with the text" (2012, p. 65). Here the catalog presents what looks like unmediated access to a combination of documentary images and the Walker's catalog records, the white frame serving as a neutralizing mechanism for a highly negotiated set of fragments, for which the classification remains forever just out of reach. Or, put another way, letting an image speak not just for itself but for the object or image it represents, even if it is as simple as a page,

does both image and its subject the disservice of restricting my ability, as a reader, to locate meaning in either. I can do little more than browse, or else regard the catalog itself as an utterly distinct creation that can only be engaged on its own restricted terms.

But there is of course no point at which the artwork is fixed in space and time though there are moments that it is engaged, even recorded, because, as Drucker points out, identifying properties is not the same as defining the ways they may be seen or interpreted; or pinning down what they mean over time and across space. No perspective, frame, or catalog, no matter how neutral seeming, can transcend what she describes as material, performed reading.

Artist Pages

The Walker Art Center's 2005 printed catalog *Bits & Pieces Put Together to Present a Semblance of a Whole: Walker Art Center Collections* takes its name from a work attributed to conceptual artist Lawrence Weiner that was installed at the Walker in 1991, which he subsequently "reformatted" to illustrate the cover of the catalog to which it lends its name.[41] The Walker does

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41
http://collections.production.s3.amazonaws.com/2013/01/28/15/53/59/870/B_Pcat_Weiner_Lawrence_2005.pdf

not collect or catalog artists the same way that it collects and describes their

works of art, but Gallery 9 and the Permanent Collection demonstrate that artists

serve important structural and conceptual roles in the Walker collection and

catalogs. Gallery 9's people pages describe and link to documents of artists as

well as writers and curators – a page devoted Weiner[42] features three links, to

that website's page for his contribution to äda'web, *Homeport*[43], direct to

Homeport itself[44], and to the artist's Permanent Collection page[45]. No other text

describes Weiner or his artwork, though both the Homeport page and its

catalog record supply information about Weiner and the project.

I may also reach Lawrence Weiner's Permanent Collection page by

searching the catalog for his name, or by hyperlink – Artists identified on artwork

pages serve as links to artist pages. Weiner's Permanent Collection page does

not link back to Gallery 9, but to Wikipedia, it also presents more than forty

objects attributed to him that the Walker has collected. Also like Gallery 9's, the

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42
http://gallery9.walkerart.org/bookmark.html?id=594&type=agent&bookmark=1
43
http://gallery9.walkerart.org/bookmark.html?id=10613&type=object&bookmark=1
44 http://adaweb.walkerart.org/context/artists/weiner/weiner0.html
45 http://www.walkerart.org/collections/artists/lawrence-weiner

Permanent Collection's Weiner page resembles its artwork pages stylistically and

structurally. First, like pages that represent works of art, the title depicts the

artist page as a museum component: "Collections > Lawrence Weiner." Beneath

the title a gray bar offers me the option of foregrounding "Introduction" or

"Artworks." "Introduction" presents a set of fields like those that identify

artworks: Name, Lawrence Weiner; Nationality, American; Life Dates, 1942-;

Gender, Male; and Holdings (42), 1 sculpture, 1 unique works on paper, 1

drawing, 36 books, 1 periodical, 1 internet art, 1 videotapes/videodisc. A round

cutout of an image of Weiner's *Bits & Pieces Put Together to Present a*

Semblance of a Whole (hyperlinked to Weiner's Wikipedia page[46]) sits to the left

of the text fields. It is not clear whether the image presents the installation or

catalog cover, or is original, the image the equivalent of the artwork itself. The

catalog's image therefore describes the Artist, and proposes at least three facets

to his relationship with the museum.

The Introduction page also offers a set of two expandable gray windows.

The first is entitled "Wikipedia: About Lawrence Weiner"; Wikipedia, in turn,

highlights a photograph of Weiner's *Bits & Pieces Put Together to Present a*

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46 http://en.wikipedia.org/wiki/Lawrence_Weiner

Semblance of a Whole taken at the Walker[47]. As much as the Walker appears to reach beyond its collection and accumulated internal documentation for information about this artist, who also serves as an organizing principal for the collection, the exterior engages the Walker and its website in a reciprocal relationship. The second window, labeled "Essay: LAWRENCE WEINER, WALKER ART CENTER COLLECTIONS, 2005," reprints the 2005 print catalog's Weiner entry and related bibliographic information[48]. The text describes the artist's 1960s transition from three-dimensional media and land art to text-based conceptual art. It includes hyperlinks to footnotes that appear at the bottom of the further expanded window with a link to a digital image of the catalog entry. Written by Rochelle Steiner, curator, writer and former dean of the Roski School of Art at the University of Southern California, the text enumerates the artist's Statement of Intent as a "sculptor who considers his medium to be 'language and the materials referred to.'"[49] For Weiner, art cannot be restricted to a

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47 http://en.wikipedia.org/wiki/File:WeinerText.JPG

48 Link to digitized print catalog entry broken as of August 11, 2013. http://collections.production.s3.amazonaws.com/2013/01/28/15/53/59/870/B_Pcat_Weiner_Lawrence_2005.pdf

49 http://www.walkerart.org/collections/artists/lawrence-weiner/artworks?has_image=false

creation date, and Steiner cites German curator R.H. Fuchs's explanation of

Weiner's philosophy of art:

> Notations are never dated. Dating them would not concur with Weiner's wish to let them exist as objective facts within the culture that in many different ways, in many different places may materialize. Only actual executions (or presentations in books, records, exhibitions) are dated.[50]

In other words images, what I might consider facsimiles of it if I do not adhere to

Weiner's prescription, and even my own interpretation of Weiner's artwork, are

creatively distinct, not just interpretations. Perhaps contrarily, both Gallery 9 and

the Permanent Collection catalogs disclose Creation Dates for each of the

Walker's collected Weiner artworks. Weiner's apparent adversity to, or

ideological conflict with the Walker's information system bolsters the tension

inherent to its imposing catalog records, and potentially also to artists'

conflicted relationships with institutions that threaten to subsume them. Weiner

is a category to which his works belong, and a member of a foreign system of

classification, occupying the museum's limns. Unlike Gallery 9, the Permanent

Collection page suggests an attempt at comprehensiveness that exceeds it own

resources.

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[50] Citation given at http://www.walkerart.org/collections/artists/lawrence-weiner: From Rudolf Herman Fuchs, ed., *Lawrence Weiner*, exh. cat. (Eindhoven, Netherlands: Van Abbemuseum, 1976), unpaginated.

Optimal Objects, Optimal Readers

The Walker's Permanent Collection catalog directly addresses legal, technical, and practical concerns identified by the Online Scholarly Catalog Initiative. It demonstrates rights of its images and objects over provenance. Automate of sorting of sets of artworks and information-generating for artwork and artist records mean Java Scripts draw on museum data unavailable to readers; data may be updated easily, web designers may move, add and delete information easily. Most basically, items are easily distinguishable, with prominent and repetitive Title and Artists fields to resolve what each object is and identify the party responsible for it. I glean from search suggestions and results that markup of these fields distinguishes artists' last names, the features by which they are most immediately identified. Sorting and the search function limit my ability to direct my narrative through the collection, enforcing an institutionally biased framework that limits my ability to exceed item- or artist-level engagement of the catalog: experiences of these classes of things are privileged over all others.

The problem is not so much that the Walker directs my experience, but that it elides its own role, leaving me powerless to engage meaningfully in this

text and, just as important, uninspired by it. I can search for individual images and browse sets of them; traces of their underlying information systems elude me. Only when I attempt to determine the objects and reading experience for which the catalog has been optimized do I begin to understand my peripheral position in relation to it, why I am unable to consider it a scholarly tool or even a useful means to approach the institution, in its current state.

LIMITS OF THE PAGE

Whether it features an array of artworks or a set of descriptive fragments that together describe a work, each page in its catalog represents a kind of collection drawn from Walker classification and data structures. This information describes but clearly does not encompass artworks – I have demonstrated that representation instead yields a separate, new text that is rife with implications but limited in its execution. Yet nothing about visual or online art or even cataloguing demands the structure of the page as presented by the Walker; the Art Institute of Chicago demonstrates as much in its Impressionism catalog. Furthermore, as Drucker (2013) suggests, there is no property of an object or concept here that mandates the one-to-one correspondence demonstrated by the Walker to characterize the relationship between artwork and page, or that of

attribute to value, as they are inscribed in its Permanent Collection catalog each time I bring it to my screen.

I resist the Walker's suggestion that the museum's role online, an appearance of neutrality rather than authority, should diverge so dramatically from its physically embodied role, according to which its historical and contemporary relevance inform the value of art (the reverse is equally true). After all, it is not an ideal and conceptual presentation but the material one in a gallery space that attracts amateurs and experts to museums – the barriers presented by the expensive, physical, shadow-filled world participate in the resonance of institutions like the Walker.

PERFORMING READING: LESSONS LEARNED

The Walker does offer a cohesive but a multiply informed vision of its collection. It demonstrates the diverse but purposeful range of its holdings, which could be the pragmatic function of the catalog as a means to individuate and prioritize artists' implements and artworks without prioritizing types of elements or stages of a project's implementation, or simply the value of donated artifacts from prestigious foundations. It also indicates the values that they might adopt in contemplating artists' oeuvres to the reading public. The problem is

not that more distinguishing, distinctive information is unavailable elsewhere but rather that the complexity inherent to the work of selecting and naming tend to evaporate or time and across systems, particularly when they are rendered invisible by the systems that preserve them. Obscuring the position or origin of the catalog image or text is a negative act that precludes the reader's ability to identify underlying patterns, and the opacity of this interaction could beget assumptions about those that extend beyond the collection catalog. Put another way, such opacity elides the ontological rift between artwork and catalog record, erasing the multiple acts of mediation required to synthesize the record's set of fragments.

Johanna Drucker (2013) proposes an alternative way to study digital media, and to implement its design, by approaching the relationship of what she calls an object's formal and forensic materiality, its codes and structures and physical materiality, to the object itself as experienced, indeed performed, by a reader. Rather than reifying material characteristics as self-evident or even just concrete, she advocates for examining materiality as performed or engaged in the act of reading, and for demonstrating rather than hiding multiple components and strata that comprise our experience of them (Drucker, 2013).

Sustained engagement or reading of the catalog yields a multi-faceted

interaction with a multiplicity of collections including a collection of entities, i.e.,

artworks at different levels of abstraction, and of artists who are defined in terms

of collected artworks; a collection of standards (like, minimal fields required) and

vocabularies (what is present/stated); a collection of interpretations (as

performed by individual cataloguers); and a collection of codes or styles

(integrated by the web editor). Furthermore, the entities pages act as collections

of these four facets.

Representations of artworks, their pages, are comprised of a variable

collection of valuable facts about them, and about how they figure into the

Walker's classification schema and collection. These facts are fragments of

information of variable quality; they also signify different layers of specificity and

conversely, depths of abstraction. None paints a fully accurate image of the

work for which they collectively stand. Despite certain consistencies (i.e., in the

presence of certain descriptive attributes), the collection catalog foregrounds its

evaluative inconsistency (i.e., in the inexplicably inconsistent values assigned to

those regular attributes). As a result uniformity here highlights gaps and holes in

transparency, record making and keeping, and organizational style instead of

hiding them. So the multi-dimensional catalog is an orchestrated performance of a collection, an assemblage full of gaps that are maintained rather than obscured by regular structure, and inconsistencies in execution. The Walker should take Drucker's lead, developing the catalog's multi-dimensional materiality instead of reifying it. The page may be a useful starting point but it conceals too much; for the sake of simplicity it does not reveal enough.

And herein lies potential for the Walker's and other public-facing catalogs to demonstrate more ethical ambiguity that Star and Bowker call for when they suggest classification systems incorporate multiple dimensions: documenting creative responsibility introduces accountability to the system itself, marks it as an independent text, and locates the point of view from which images and other metadata emanate (Bowker & Star, 2000, p. 313). Demonstrating their own situated origins and multiple layers of creative responsibility in addition to describing collection components, the Walker's web designers might also advocate for incorporation of information about the important conceptual work that underpins its position as a unified collections and record creator. In doing so they may also reinforce the reader's powerfully situated onscreen reading, which now begins digitally and materially at home.

Coda

The Walker online catalog's juxtaposition of (dis)appearance and act of mediation suggests the museum's potential for, or explicit role in designating objects and even images and sets of objects as valuable, individual artworks, "objects of ethnography," to borrow Barbara Kirschenbaum-Gimblett's term (1990). Kirschenbaum-Gimblett discusses the potential significance of the ethnographic object, a carefully selected fragment produced in a creative process. She asserts the ethnographic museum, presenting something that is actually beyond itself but manufactured in some sense to fit inside of it, supplies a means to puncture the "seal of the quotidian" (Kirschenbaum-Gimblett, 1990, p. 410). The museum eliminates the distance between the foreign and familiar in a phenomenon she names the Museum Effect; not only is the museum responsible for demonstrating a privileged worldview, but this world view extends beyond the rarefied space of the museum itself to organize vision for its audience, with ramifications that extend beyond its purview:

> The museum effect works both ways. Not only do ordinary things become special when placed in museum settings, but also the museum experience itself becomes a model for experiencing life outside its walls (Kirschenbaum-Gimblett, 1990, p. 410-411).

Kirschenbaum-Gimblett's resonates with Hedstrom and King's theory that the

fifteenth century catalogs documenting cabinets of curiosity or

Wunderkammern, the predecessors of museums today, participated in

coordinating and solidifying classification systems for natural phenomena, and

standards that would structure museum collections and epistemic infrastructure

generally for centuries to come (Hedstrom & King, 2006). At the same time the

museum effect strikes a chord with Star and Bowker's (2000) boundary

infrastructure concept, and its potential resonance for standards and resulting

reader or audience expectations that extend far beyond the museum. Online the

gap between the museum and adjacent systems for organizing information gets

even narrower.

References

Adorno, T.W. (1981). Valéry Proust Museum. In P. Eleey (Ed.). (2009). *The Quick and the Dead* (pp. 123-134). Minneapolis, MN: Walker Art Center.

Artforum Magazine. (2004, February 4). Walker Art Center Unveils Plans for Sculpture Garden. Retrieved July 3, 2013, from http://artforum.com/archive/id=6289

Atkins, R. (1998, September). What Is äda'web? In *Gallery 9*. Retrieved July 10, 2013, from http://gallery9.walkerart.org/bookmark.html?id=141&type=text&bookmark=1

Baca, M., Harpring, P., Lanzi, E., McRae, L., Whiteside, A. & Visual Resources Association. (2006). *Cataloging Cultural Objects: A Guide to Describing Cultural Works and Their Images*. Chicago, IL: American Library Association.

Bal, Mieke. (1994). Telling Objects: A Narrative Perspective on Collection. (pp. 97-115) In R. Cardinal & J. Elsner. (Eds.) *The Cultures of Collecting*. London, England: Reaktion Books.

Bowker, G.C. & Star, S.L. (2000). *Sorting Things Out: Classification and its Consequences*. Cambridge, MA: MIT Press.

Cardinal, R., & Elsner, J. (Eds.) (1997). *The Cultures of Collecting*. London, England: Reaktion Books.

Carpenter, E. & Rothfuss, J. (Eds.). (2005). *Bits & Pieces Put Together to Present a Semblance of a Whole: Walker Art Center Collections*. Minneapolis, MN: Walker Art Center.

College Art Association. (2005). Addendum: Publishing Requirements for Tenure and Promotion in Art History. In *Standards and Guidelines: Standards for*

Retention and Tenure of Art Historians. Retrieved June 25, 2013, from http://www.collegeart.org/guidelines/tenure

Dowden, R, & Solas, N. (2012). Rethinking the Museum Website. *MuseumNext 2012 Keynote.* Retrieved June 10, 2013, from http://vimeo.com/44162636

Drucker, J. (2004). *The Century of Artists' Books* (2nd ed.). New York, NY: Granary Books, Inc.

Drucker, J. (2013). Performative Materiality and Theoretical Approaches to Interface. *DHQ: Digital Humanities Quarterly, 7, 1.* Retrieved from JSTOR Database.

Eleey, P. (Ed.). (2009). *The Quick and the Dead.* Minneapolis, MN: Walker Art Center.

Eyebeam (n.d.). Steve Dietz. Retrieved August 10, 2013, from http://www.eyebeam.org/people/steve-dietz

Feinberg, M. (2011). Expressive Bibliography: Personal Collections in Public Space. *Knowledge Organization 38(2): 123-124.*

Feinberg, M. (2012). Writing the Experience of Information Retrieval: Digital Collection Design as a Form of Dialogue. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, *CHI '12, 357-366.* New York, NY: ACM. DOI: http://doi.acm.org/10.1145/2207676.2207725

Groom, Gloria. (Ed.). (2011). *Monet Paintings and Drawings at the Art Institute of Chicago.* Chicago, IL: Art Institute of Chicago. Retrieved July 15, 2013, from http://publications.artic.edu/reader/monet-paintings-and-drawings-art-institute-chicago

Hedstrom, M. & King, J.L. (2006). Epistemic Infrastructure in the Rise of the Knowledge Economy. In B. Kahin & D. Foray (Eds.), *Advancing*

Knowledge and the Knowledge Economy. Cambridge, MA: The MIT Press.

International Federation of Library Associations and Institutions (IFLA). (2008). "Group 1 Entities: Work, Expression, Manifestation, Item." In *Functional Requirements for Bibliographic Records (FRBR)*. Retrieved 25 June 2013, from http://archive.ifla.org/VII/s13/frbr/frbr_2008.pdf

Iser, W. (1989). *Prospecting: From Reader Response to Literary Anthropology* (2nd ed.). Baltimore, MD: The Johns Hopkins University Press.

Jahnke, M. (2012). Revisiting Design as a Hermeneutic Practice: An Investigation of Paul Ricoeur's Critical Hermeneutics. *Design*Issues, *28, 2, 31-40.*

Kirschenbaum-Gimblett, B. (1990). Objects of Ethnography. In S.D. Lavine & I. Karp. (Eds.). (1991). *Exhibiting Cultures: The Poetics and Politics of Museum Display* (pp. 386-443). Washington, D.C.: Smithsonian Institute Press.

Mak, B. (2012). *How the Page Matters.* Buffalo, NY: University of Toronto Press.

Merleau-Ponty, Maurice. (1964). Eye and Mind. In J. M. Edie (Ed.), *The Primacy of Perception: And Other Essays on Phenomenological Psychology, the Philosophy of Art, History and Politics* (pp. 159-190). Evanston, IL: Northwestern University Press.

Minneapolis Parks & Recreation Board. (n.d.). Parks & Lakes, Park Detail: Sculpture Garden. Retrieved July 10, 2013, from http://www.minneapolisparks.org/?PageID=4&parkid=270

MuseumNerd. (2011, December 4). The Walker's Game-Changing New Website. *Artlog.* Retrieved July 30, 2013, from http://www.artlog.com/2011/152-the-walkers-game-changing-new-website

The Getty Foundation. (2012). Moving Museum Catalogues Online: An Interim Report from the Getty. Retrieved June 25, 2013, from http://www.getty.edu/foundation/pdfs/osci_interimreport_2012.pdf

The Getty Foundation. (n.d.a). Online Scholarly Catalogue Initiative. *Our Priorities*. Retrieved June 25, 2013, from http://www.getty.edu/foundation/initiatives/current/osci/index.html

The Getty Foundation. (n.d.b). OSCI: Grants Awarded. *Our Priorities*. Retrieved June 25, 2013, from http://www.getty.edu/foundation/initiatives/current/osci/osci_fact_sheet.html

Snodgrass, A. & Coyne. R. (2006). Playing by the Rules and Design Assessment (pp. 59-70, pp. 119-132). In *Interpretation in architecture: Design as a Way of Thinking*. London, England: Routledge.

Viso, O. (2011, December 1). Idea Hub: Introducing the New Walker Website. In Walker Magazine. Retrieved July 3, 2013, from http://www.walkerart.org/magazine/2011/idea-hub

Walker Art Center. (n.d.a). *Gallery 9*. Retrieved June 1, 2013, from http://gallery9.walkerart.org

Walker Art Center. (n.d.b). *Walker, About: Building & Campus*. Retrieved June 12, 2013, from http://www.walkerart.org/about/building-campus

Walker Art Center. (n.d.c). *Walker, About: Mission & History*. Retrieved June 12, 2013, from http://www.walkerart.org/about/mission-history

Walker Art Center. (n.d.e). *Walker*. Retrieved June 1, 2013, from http://www.walkerart.org

Walker Art Center. (n.d.e). *Walker, Permanent Collection*. Retrieved June 1, 2013, from http://www.walkerart.org/collections

Walker Art Center. (n.d.f). *Walker, New Media Initiatives: About the Program.* Retrieved June 10, 2013, from http://www.walkerart.org/new-media-initiatives/about-the-program-2

Walker Art Center. (n.d.g). *Walker,* Ruben/Bentson Film and Video Collection. Retrieved June 15, 2013, from http://www.walkerart.org/film-video/ruben-bentson-film-and-video-study-collection

Walker Art Center. (2011, August 15). *Walker, Press Releases: Walker Art Center Receives $1M Gift from Bentson Foundation to Preserve and Digitize Film in Collection and Renovate Cinema.* Retrieved June 15, 2013, from http://www.walkerart.org/press/browse/press-releases/2011/walker-art-center-receives-1-million-gift-fro

Zeiger, M. (2011, February 23). Op-ed in *Domus.* Retrieved from August 1, 2013, from http://www.domusweb.it/en/op-ed/2011/02/23/only-collect.html