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Utilizing the Contextual Learning Model at the Plattsburgh State Art Museum

by

Samantha E. Bellinger

FINAL PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN LIBERAL STUDIES

SKIDMORE COLLEGE May 2014 Advisors: David Howson, Rachel Seigelman

THE MASTERS OF ARTS PROGRAM IN LIBERAL STUDIES SKIDMORE COLLEGE

For my family, who has loved and supported me throughout all of life's challenges. I would not be the individual I am today without your faith and commitment to my success. Thank you.

Acknowledgments

I would like to thank my advisor, David Howson, for his patience and support during the writing process of this thesis. I am grateful for his guidance and commitment to my success. I would also like to thank Rachel Sieglman for her willingness to provide her insights into the museum field, and Sandy Welter for the influence she has had on my graduate career.

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Abstract

Inspired by the work of John Falk and Lynn Dierking, this article examines the characteristics of contextual learning at the Plattsburgh State Museum. It investigates the museum visitors' experiences and process of learning through the lens of the Contextual Learning Model.

The purpose of this thesis is twofold: 1) to suggest a method for understanding the museum visitor experience, 2) and to demonstrate that visitor learning is fundamentally a meaning-making activity that involves a constant negotiation between the stories given by museums and those brought by visitors. As such, it is emphasized that museums can be effective educators if they recognize and honor the process of meaning-making.

Chapter 1: Introduction

Museums in the 20th century were historically rooted in object lessons, often more concerned with collection research than with visitors' education. Over the past few decades, however, museum culture has begun to shift from focusing on their collections to their visitors. Museums are transforming themselves from static object displays into interactive learning environments for visitors. Today, virtually all museums prioritize visitor experience over artifacts and focus on public education. This transition of priorities allows us to place the Plattsburgh State Art Museum in the context of when it was created and why it has become what it is today. But this paper is not about the transitions, it is about the importance of context in understanding the museum visitor experience.

The purpose of this article is two-fold. First, it means to illuminate how visitor experience - the perceptions, feelings, and reactions an individual has while visiting a museum⁴-can be understood through the lens of the Contextual Learning Model, a constructivist learning theory that outlines the learning process in three intersecting contexts. Second, it aims to demonstrate that visitor meaning-making is an ongoing negotiation of information between museums and their visitors. As such, this thesis emphasizes that museums can better educate visitors by understanding the learning process and honoring visitor meaning-making.

To better illustrate the use of the Contextual Learning Model, I will examine two galleries at the Plattsburgh State Art Museum. The Rockwell Kent Gallery and the Joseph C.

¹ Michelle Henning, Museums, Media and Cultural Theory, (Maidenhead, UK: McGraw-Hill International Ltd., 2007), p. 2.

² Eilean Hooper-Greenhill, Museums and their Visitors, (London: Routledge, 1994), p 1.

³ Henning, Museums, Media and Cultural Theory, p. 2.

⁴ National Park Service GMP Dynamic Sourcebook, s.v. "visitor experience," http://planning.nps.gov/GMPSourcebook/Glossary.htm, accessed January 2013.

and Joan T. Burke Gallery both have held exhibitions composed of the Museum's extensive Rockwell Kent collection. Both galleries were ideal environments where context influenced the visitor's experience of the museum. Yet, each gallery was distinct in its presentation of objects and its manifestation of contextual learning.

In order to maintain the intended viewing experience and more fully appreciate the applications of the Contextual Learning Model, I will examine the exhibit spaces as I experienced them. To inform and support the exhibition exploration, professional research findings, such as those reported by the American Alliance of Museums, will be incorporated. It is my hope that by exploring the juxtaposition of objects and exhibit design as one would experience it, the reader will be able to better understand the how the displays of Rockwell Kent's artwork illuminates the Contextual Learning Model and how those complex interactions can be utilized in interpretation and audience education.

Chapter 2: Definition of Terms

Museum is an expansive term that encompasses a large number of institutions. The American Alliance of Museums defines a museum as "a public or private nonprofit agency or institution organized on a permanent basis for essentially educational or aesthetic purposes, which, utilizing a professional staff, owns or utilizes tangible objects, cares for them, and exhibits them to the public on a regular basis." In this thesis, I define a museum as an informal place of learning that collects, displays, and interprets artifacts. I will also refer to the idea that a museum is an architectural space where objects are organized in order to spark specific ideas and evoke the collective memory of its visitors.

The museum is a physical environment. I define the *museum environment* as a three-dimensional space that encompasses the land, building, exhibit layout, arrangement of objects, lighting, color and the means of orientating the visitor. The sum of these elements makes up the physical environment of the museum.⁶

Message applies to the information passed between two or more parties during communication process. Museums set forth messages in an effort to tell a story, inform visitors of intend themes, and encourage visitors to form connections with the objects. In this thesis, message is defined as the information presented through elements of the museum exhibition (i.e labels, didactic panels, audio tours, selection of objects, etc.). Message also refers to the information received by the museum visitor. It is important to distinguish that the term refers to the information itself, not the mode or process of communication.

⁵ American Association of Museums, "What is a Museum?," http://www.aam-us.org/aboutmuseums/whatis.cfm, accessed May 2012.

⁶ Goulding, "The Museum Environment and the Visitor Experience," pp. 261-278.

Visitor Experience is defined in this thesis as the perceptions, feelings, and reactions an individual has while visiting a museum.⁷ I use the terms *visitor experience* and *museum experience* interchangeably.

Museum Education is a specialized field devoted to enhancing museum visitors' ability to understand and appreciate museum collections. It is "a term that in its broadest sense includes exploration, study, observation, critical thinking, contemplation, and dialogue."

Free-choice learning is a term borrowed from Lynn Dierking. It is meant to replace the term informal learning for the type of learning that happens in a museum. It focuses on learning from objects and real world experience. Free-choice learning is personally motivated, voluntary, and nonlinear; learners can choose when, where and what to learn.

Meaning-making is a term borrowed from Falk and Dierking. It is based on the idea that meanings do not exist objectively, but rather they are actively created in human interaction. ¹⁰ The concept describes the active role a visitor plays in creating meaning in interacting with the world through the contexts he/she brings to the experience. ¹¹ It follows that the visitor meaning-making can be situated within the museum in terms of its environment, artifacts, and cultural references. ¹²

Museum Learning is a term used in Barry Lord's Manual of Museum Learning. Lord defines museum learning as "a transformative, affective experience in which we develop new

⁸ American Association of Museums, "Excellence and Equity" (PDF file), downloaded from EdCom website, http://www.edcom.org/Files/Admin/EdComBookletFinalApril805.pdf, accessed May 12, 2013.

⁷ National Park Service, visitor experience.

⁹ Lynn D. Dierking, "The Role of Context in Children's Learning from Objects and Experiences," in Perspectives on Object-Centered Learning in Museums, edited by Scott G. Paris (Mahwah, NJ: Lawrence Erlbaum Associates, 2002), pp. 3-18.

Michael J. Crotty, The Foundations of Social Research: Meaning and Perspective in the Research Process, (Thousand Oaks, CA: SAGE Publications, Inc., 2003).

¹² Lois H. Silverman, "Visitor Meaning-Making in Museums for a New Age," Curator 38, no. 3 (1995), pp. 161-170. ¹² Ibid., p. 161-170; Kevin Walker, "Designing for meaning making in museums: visitor-constructed trails using mobile digital technologies," (Ph.D. diss., University of London, 2010), p. 19.

attitudes, interests, appreciation, beliefs, or values in an informal, voluntary context."¹³ In this thesis, I only alter this definition to reflect the new terminology used in the museum education research. I define *museum learning* as any experience in which a visitor develops a new attitude towards, is interested in, appreciates, values, or has a connection with new information/contexts within a free-choice learning environment.

Context is defined in the dictionary as "1) the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood and assessed. or 2) the parts of something written or spoken that immediately precede and follow a word or passage and clarify its meaning." ¹⁴ For the purpose of this thesis, I define *context* as the internal and external settings by which a person assesses, understands, and clarifies information or ideas.

The Contextual Learning Model is a framework put forth by John H. Falk and Lynn D. Dierking intended as "a device for organizing the complexities of learning within free-choice settings."¹⁵ It states that learning is a process/product of the interactions between three overlapping contexts and can be conceptualized as the sum of an individual's personal, sociocultural and physical contexts. It is a framework for thinking about learning and is often referenced in museum education research. 16

¹³ Barry Lord, "What is Museum Based Learning," in The Manual of Museum Learning, edited by Barry Lord (New York: AltaMira Press, 2007), p. 17.

¹⁴ Oxford English Dictionary, s.v. "context,"

http://www.oxforddictionaries.com/us/definition/american_english/context, accessed March 23, 2014.

15 John H. Falk and Lynn D. Dierking, Learning from Museums: Visitor Experiences and the Making of Meaning, (Walnut Creek, CA: AltaMira Press, 2000), p. 13. ¹⁶ Ibid.

Chapter 3: **Review of Literature**

To recognize the importance of understanding the Contextual Learning Model, it is first necessary to turn to the current state of museum education research. Museum Education is a specialized field devoted to enhancing museum visitors ability to understand and appreciate museum collections.¹⁷ The research specific to this field goes beyond the traditional education research, which has focused on learning in and from classroom settings. Museum education research extends learning theory to include the complex, contextual nature of learning from objects and experiences. 18 These theories can encompass a mixture of audience-based research, theories of meaning-making, philosophies on materiality and ideas on object-centered learning.

Museum education research has grown proportionally to shifting paradigm and the resulting increased focus on visitor learning in museums. In the 1990s, writers including Carl Duncan, Douglas Crimp and Eilean Hooper-Greenhill, among others, introduced European Critical theory to Anglophone museum studies. Through their work, museums were identified as sites for the classification and ordering of knowledge, the production of ideology and the disciplining of a public. Each scholar introduced a new complexity and added to the theoretical language to the discussions of museums.¹⁹

Since then, a growing number of scholars have investigated meaning-making by museum visitors and the experience of free-choice learning in museums. These researchers acknowledge that visitors come to museums with their own agendas and construct their own meanings within museums. Regardless of what the museum staff intend, museum experience is often personal rather than generic. As such, understanding different ways context influences visitor learning is

¹⁷ American Association of Museums, Excellence and Equity.
18 Dierking, The Role of Context, pp. 3-18.
19 Henning, Museums, Media and Cultural Theory, p. 2.

important to the museum field because visitors will continue to create their own meanings.

Thus, museums today must adapt to the increasing expectation to respond to the public's needs rather than continuing to simply tell the public what the curators think they need to know.²⁰

The increasing pressure on museums to become effective education institutions has triggered a particularly relevant way to understand the complex process of visitor learning within the museum context: contextual learning.²¹ This constructivist theory is shared by a number of theories used in the museum education field.

Constructivism:

Constructivism is a theory of learning which holds that learners construct their own knowledge.²² Two essential features are requisite to constructivist learning. 1) The participant must be actively engaged in the learning process; 2) what is learned must be relevant to their visitor's life and confirmed in their own meaning-making.²³

George Hein applied the constructivist theory to museums in his 1998 book, *Learning in the Museum*. Hein writes that visitors construct knowledge by making connections between their lives and the objects they encounter in the museum. The meanings that museum visitors derive from their experience in the museum can be stimulated by all aspects of the museum. The experience is not limited to the artifacts; it also involves the goals and expectations of the visitors. No matter the intention of the exhibit designer and curator, the knowledge the museum visitor leaves with is highly personal. Hein therefore advocates that museums develop practices

²⁰ EunLung Chang, "Interactive Experiences and Contextual Learning in Museums," Studies in Art Education 47, no. 2 (2006), pp. 170-186.

²¹ Eilean Hooper-Greenhill, Museums and Shaping of Knowledge, (London: Routledge, 1994), quoted in Chang, Interactive Experiences and Contextual Learning in Museums, pp. 170-186.²¹

²² J. Sener, "Constructivism: Asynchronous Learning Networks," Asynchronous Learning Networks Magazine, 1, no. 1 (1997).

²³ George E. Hein, Learning in the Museum, (London: Routledge, 1998), p. 34.

to facilitate the constructivist learning process.²⁴ In other words, museum experiences should be engineered to invite speculation and allow conclusions to be drawn.

Contextual Learning Model:

John Falk and Lynn Dierking's Contextual Learning Model suggests that all experience is contextual and influenced by the interplay of three overlapping contexts: personal, sociocultural, and physical.²⁵

The personal context is what visitors bring to with them to the situation.²⁶ It is their motivations, beliefs, expectations, knowledge and experiences.²⁷ Each person is like their own museum with collections of interests, prior knowledge, and life experiences.²⁸ All new knowledge is constructed from and placed into this web of prior knowledge.²⁹ Therefore, visitor learning is affected by - and happens within - the personal context.

The sociocultural context recognizes how, why, and what someone learns is inseparable from the social and cultural contexts in which that learning occurred. It goes beyond individual (i.e. personal) learning and illustrates how the creation of knowledge is often a shared process. For example, visitors often attend a museum in a social group (family, community group, etc.) and subsequently tour the galleries together. This means that the exhibit content and museum's physical space are mediated by the others in the group. The group's interaction with docents, guides, and other visitors can further affect learning outcomes. Thus, collaborative learning is bound to occur. Occurred. It goes beyond individual (i.e. personal) learning and illustrates how the creation of knowledge manifests in our narrative

²⁴ Melinsa M. Mayar, "Bridging the Theory-Practice Divide in Contemporary Art Museum Education," in Art Education 58, no. 2 (2005): p. 14.

Falk and Dierking, Learning from Museums, p. 13.

²⁶ Mayar, Bridging the Theory-Practice Divide, p. 15.

²⁷ Chang, Interactive Experiences and Contextual Learning in Museums, p. 179.

²⁸ Bernie Ariho, "Getting a Handle on the Past: The Use of Objects in Reminiscence Work," in Touch in Museums: Policy and Practice in Object Handling, edited by Helen J. Chatterjee (Oxford: Berg., 2008): p. 206.

²⁹ Dierking, The Role of Context, p. 3.

³⁰ Chang, Interactive Experiences and Contextual Learning in Museums, pp. 179-180.

relationship with the world we inhabit.³¹ Humans tell stories to relay information and have passed down histories via oratory and written narratives. Museum exhibits tap into the underlying narrative tendencies of human nature by presenting artifacts within a larger story. They are often representative of an overarching cultural framework. Together, the cultural and social aspects make up the socio-cultural context.³²

The physical context accounts for the idea that learning does not occur in isolation from the objects experienced in the real world. Visitor learning can be helped or hindered by their surroundings. This includes the architecture, layout and feel of a building as well as the objects contained within it.³³ Learning is also situated within the physical context. The physical context is routinely recalled in a person's experience of a free-choice learning setting - what they saw, did and felt about their experiences.³⁴

At any time, any one of these three contexts can assume a major importance in visitors' experiences. The interactions continually shift among personal, social, and physical contexts. All three contexts can contribute significantly to visitors' museum experiences, though not necessarily in equal or fixed proportions.

Together, the three aforementioned contexts make up the Contextual Learning Model. The model provides a framework within which to organize information about a museum. It accurately captures the visitor's process of learning and is an excellent way to examine visitor learning within the context of the museum.

Falk and Dierking, Learning from Museums, pp. 39 & 48.
 Mayar, Bridging the Theory-Practice Divide, p. 15.

Falk and Dierking, Learning from Museums, p. 57.

³⁴ Dierking, The Role of Context, p. 6.

Chapter 4: Methodology

Application of Contextual Museum Learning

To better understand the application of the Contextual Learning Model, I will use the Plattsburgh State Art Museum as an example. The Plattsburgh State Art Museum is located in on the State University of New York campus in Plattsburgh, NY. It is comprised of approximately 10,000 artifacts, ranging from antiquities to contemporary art. The collection is displayed in a series of exhibition spaces throughout the SUNY Plattsburgh campus.³⁵

I will focus my discussion on two displays of artwork by Rockwell Kent: The Rockwell Kent Gallery and a temporary exhibition *Rockwell Kent Paintings* which housed in the Joseph C. and Joan T. Burke Gallery. Both exhibitions were composed of artwork from the Plattsburgh State Art Museum's Rockwell Kent collection, but each exhibition is distinct in its presentation of objects and the way it impacts visitor learning.

Thesis Structure

This thesis is divided into seven chapters. The previous two chapters build the theoretical framework for this study by defining key terms, reviewing the current state of research, and providing a conceptual model to further facilitate my inquiry into museum learning. This chapter, chapter 3, is meant to outline the methods I will employ throughout this thesis. The next four chapters are discussed below in greater detail.

Chapter 4, *The Rockwell Kent Gallery*, will examine the Rockwell Kent Gallery as I experienced it. To inform and support the exhibit's exploration, I have compiled data collected by the Plattsburgh State Art Museum, my own observations, and industry research from such sources as the American Alliance of Museums and the Smithsonian. This chapter is broken into

³⁵ Plattsburgh State Art Museum, "Homepage," www.plattsburgh.edu/museum, accessed June 18, 2013.

sections delineated by the physical space markers and informational content of the exhibition.

They include: Vestibule: The Reality Effects of a Transitional Space, The Main Gallery, Alcove A: Literary Pursuits, Murals, Paintings, and Balcony: Commercial Endeavors and Political Tendencies.

Chapter 5, *The Joseph C. and Joan T. Burke Gallery*, follows a similar format as the previous chapter. It also uses my personal observations as a guide through the exhibit and is broken into three sections based on the physical and informational breaks in the gallery. The sections include: *A Selection of Rockwell Kent Paintings, A Visual Narrative*, and *Silent Pedagogy: The Non-Verbal Communicator*.

Chapter 6, Summary of Findings, recapitulates the points illuminated in the previous two chapters. It provides a comparison of the two galleries and discusses how contextual learning was and/or wasn't used in each. By studying the vagaries of a single collection in two exhibit formats, this chapter focuses on how a visitor's learning experience can be helped or hindered in a free-choice learning environment. It is also the point of departure from which I form my recommendations in the appendix.

Finally, chapter 7 concludes this paper. It summarizes the varied role of the Contextual Learning Model and its implications for understanding visitor experiences of the museum.

The collective aim of these chapters and the purpose of this thesis is twofold: 1) to suggest the Contextual Learning Model as an effective method for understanding the museum visitor experience through the exploration of two exhibitions at the Plattsburgh State Art Museum; 2) and to demonstrate that visitor learning is fundamentally a meaning-making activity

that involves a constant negotiation between the stories given by museums and those brought by visitors. ³⁶ As such, museums can be designed in ways that facilitate and support visitor learning.

³⁶ Lisa C. Roberts, Knowledge to Narrative: Educators and the Changing Museum, (Washington, DC: Smithsonian Institution Press, 1997), p. 14.

Chapter 5: The Rockwell Kent Gallery

The Rockwell Kent Gallery hosts a permanent exhibition of Rockwell Kent's artwork. It is meant to shed light on the art, literary merit, and commercial efforts of Kent. It portrays Kent's growth as an artist, as well as his varied social and political interests.

In order to maintain the intended viewing experience, this chapter is broken into sections as they are delineated by the physical space markers and informational context of the exhibition. It is my hope that by exploring the juxtaposition of objects and exhibit design in the way the visitor would experience it, the reader will be able to better understand the applications of the Contextual Learning Model.

As we journey through the exhibition, it is important to understand that the exhibition was not originally created for the Rockwell Kent Gallery. The exhibition is a reimaging of *Rockwell Kent: This is My Own*, an exhibit designed for the New York State Art Museum at SUNY Albany. It was altered to fit into the current gallery space. This alteration of the exhibit content for a different space explains a number of the museum's display choices.

Vestibule: The Reality Effects of a Transitional Space

The Rockwell Kent Gallery is tucked into the back corner of the Feinberg Library. The vestibule acts as a transitional entry way. Passing through the glass doors the carpet gives way to brown tile and the off-white walls turn to a rich midnight blue. This striking change in decor visually separates the gallery from the library. These visual cues are intended to mentally prepare the visitors for the museum learning experience ahead of them.

The visual changes also allow the visitor to be better prepared to retain the introductory information presented in the form of didactic panels. The space contains thirteen didactic panels

that describe the life and work of Rockwell Kent. Each panel provides a pleathera of information and uses a combination of text and photographs to illustrate the intended theme (see Figure 1). The combined use of photo and text placement on didactic panels is continually used throughout the exhibition. If we view this display in terms of the Contextual Learning Model, we can understand the ways visual cues influence visitor learning.

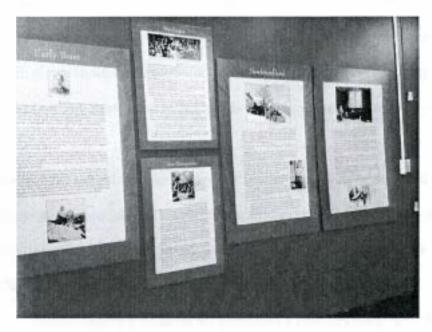


Figure 1. *Vestibule*. Rockwell Kent Gallery. Digital Photograph.

In the late 19th and early 20th centuries, media technologies — such as photography and phonography — began to record everything, regardless of its significance.³⁷ It allowed for reality to be recored without being first translated into symbolic code, which in turn meant that meaningless noise, utterances and imagery remained rather than being filtered out.³⁸ Today, exhibit designers painstakingly mimic and reconstruct these "reality effects," which Roland

Friedrich Kittler, Gramophone, Film, Typewriter, translated by G. Winthrop-Young and M. Wutz, (Standford, CA: Standford University Press, 1999), quoted in Henning, Museums, Media and Cultural Theory, p. 52.
 Ibid.

Barthes defined as "all those extraneous descriptions which don't serve to press the narrative, but which underwrite the realism of the text."³⁹ By incorporating the realistic effects of photographs into the didactic panels of the Rockwell Kent Gallery, the Plattsburgh State Art Museum aims to make the interpretative material more real and provide a better contextual learning experience. The photograph uses the reality effects to help visitors fit the information into the network of their past experiences, provide the extraneous detail necessary for a good narrative and allow the visitor to experience the scene through visual queues of the physical space.

The role these reality effects play in making information accessible to visitors can be capitalized on by the museum education field. The use of photographs can create contexts, draw the visitor into the exhibit narrative and help shape the visitor's ability to connect information with personal experience. In other words, understanding the effect of photographs on the complex relationship between personal memory, social narrative, and physical cues, and the corresponding effects on contextual learning, can be used to fashion an ideal fit between exhibit design and visitor meaning-making.

The Main Gallery

The interpretive material of transitional vestibule gives way to the main gallery. Stepping into the gallery space the architectural style is drastically different. The welcome desk is directly in front, a small alcove is to the left and an expansive space with soaring ceilings is to the right.

The visitor is given a choice - go to the left or the right. The choice of direction mirrors the free-choice learning atmosphere promoted by museums. Free-choice learning is a term borrowed from Lynn Dierking. It is meant to replace the term informal learning for the type of learning that happens in a museum. It focuses on learning from objects and experience. Free-

³⁹ Henning, Museums, Media and Cultural Theory, p. 52.

choice learning is personally motivated, voluntary, and nonlinear; learners can choose when, where and what to learn.⁴⁰

Free-choice learning is facilitated when visitors can exercise control over what and when they learn and feel in control over their own learning. This means that effective learning situations afford learners opportunities for choice and control.⁴¹ The main entrance of the gallery affords visitors this choice and control over their journeys thorugh the exhibit. The choice allows visitors the control needed to self select what objects to interact with based on their personal interests. Yet, the physical atmosphere provides them with enough guidence to direct their learning experiences.⁴²

As it happens, when people are asked to recall their experience in museums, people frequently recall aspects related to the physical context - what they saw, what they did, and how they felt about those experiences. ⁴³ The when, where, what, and how of free-choice learning and the physical context mirror one another. They both encourage choice - in direction and informational content. These connections foreshadow the connections evident through the application of the Contextual Learning Model to the rest of the Rockwell Kent Gallery.

Alcove A: Literary Pursuits

The alcove to the left of the entrance contains the literary aspects of Rockwell Kent's career. It begins with a didactic panel outlining Kent's foray into book illustration and ends with three copies of Moby Dick in a case. (Figure 2)

⁴⁰ Dierking, The Role of Context, p. 6.

⁴¹ Ibid.

⁴² Henning, Museums, Media and Cultural Theory, p. 55.

⁴³ Dierking, The Role of Context, p. 6.



Figure 2. *Literary Alcove*. Rockwell Kent Gallery. Digital Photograph.

The literary content of this section relates to the idea of narrative. People mentally organize information most effectively if it is recounted to them in the form of a story or narrative.⁴⁴ It helps them relate to the information in a simultaneously personal, sociocultural and physical way.

The need to translate information into stories is evident in the conversation overheard during my exploration of the exhibit. An elderly couple comes in and begins to reminisce about the stories they'd heard about Kent growing up. With a quick "I remember that" and a subsequent exchange of memories, these two visitors embodied the first two factors of Falk and

.

⁴⁴ Falk and Dierking, Learning from Museums, p. 51.

Dierking's Contextual Learning Model: personal meaning-making through connections to past experiences and need for socio-cultural interaction by means of story-telling.

The couple illustrate that museum visitors "make meaning" through a continual process of remembering and connecting. ⁴⁵ As educational theory has long purported, both perception and learning hinge upon the accommodation of new information into existing mental frameworks. Even at the very beginning of the exhibit, these two people were in the process of placing what they encountered within the context of their past experience. They unconsciously shaped their present understanding of the exhibit through connects with their personal context. ⁴⁶

As we continue to explore the nature of meaning-making for these two visitors, one thing is certain: the behaviors that appear to foster subjective meaning for visitors are not unique to these museum visitors; they are basic to all humans.⁴⁷ Humans share a basic need to express the meanings we make by telling them, often in the form of stories, to ourselves and to others.

Overall, the concept of meaning-making, in conjunction with story-telling, provides a useful new approach to understanding visitor experiences in museums. It draws attention to the visitor's active role in creating meaning of a museum experience through the memory he/she brings. The implications of the meaning-making paradigm and its connections to the Contextual Learning Model, illuminates critical directions for a new age of visitor interaction: one in which museums are in transition, striving to stay meaningful to people in a variety of ways.⁴⁸

Murals:

Turning the corner from the literary alcove, there is a section on Kent's murals. A single didactic panel is followed by a number of colorful drawings, which are in turn punctuated by a

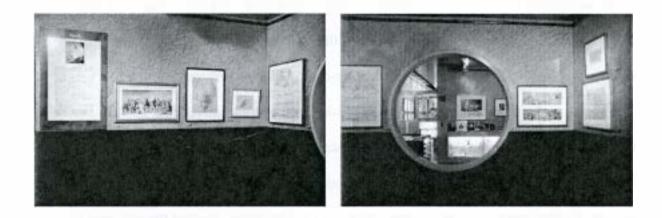
⁴⁵ Silverman, Visitor Meaning-Making in Museums for a New Age, pp. 161-170.

⁴⁶ Ibid

⁴⁷ Ibid.

⁴⁸ Ibid.

large circle "window" opening up to the area behind the main desk (Figures 3 & 4). The opening allows for easy conversation with the docent on duty.



Figures 3 & 4: *Mural Section*. Rockwell Kent Gallery. Digital Photographs.

The docent relates a story that she has seen the original mural *On Earth, Peace* at the present-day Longworth House Office Building (formerly the meeting place of the House Committee on Interstate and Foreign Commerce) and has a photograph she took with her at the desk. The docent explains the physical context of the original mural in Washington, D.C. and points out the changes Kent made to the final design, as compared with the preparatory drawings.

This chance interaction is a prime example of the sociocultural context discussed by the Contextual Learning Model. People respond well to and better remember information if it is recounted to them in narrative form. This tendency may relate to the cultural use of narratives. Stories are an ancient sociocultural vehicle for sharing information. They allow people to pass

down stories and ideas whose meanings are influenced by the cultural norms, attitudes and values that surround the communicators.⁴⁹

Sociocultural learning can also be influenced or mediated by people who are perceived to be knowledgeable (i.e. the museum docent). These interactions with others can either enhance or inhibit the visitor learning experience. When skillfully done, the museum docent can significantly facilitate visitor learning in the free-choice learning setting.⁵⁰

The museum setting lends itself well to such sociocultural storytelling, not only by docents, but by curators and visitors too. Museums set forth messages in an effort to tell a story, inform visitors of intend themes, and encourage visitors to form connections with the objects. Visitors bring their own contexts with them and therefore interpret the messages by placing them within their past experience. Docents relay their own experiences and interpret the museum's intended messages through their own contexts. This compendium of messages results in the constant negotiation between the stories presented by the museum and those created by visitors.

The sociocultural nature of the museum provides a useful approach to understanding visitor learning. It is through this shared process of knowledge — and the sociocultural context it represents — that visitors are able to effectively engage with the material presented.

Consequently, the necessary experience negotiating the messages as set forth by the exhibit, the docent, and the visitor's personal experiences points to the idea that the Contextual Learning Model can be used effectively as a method for understanding the museum experience.

⁴⁹ Ibid.

⁵⁰ Dierking, The Role of Context, p. 6.

⁵¹ Silverman, Visitor Meaning-Making in Museums for a New Age, pp. 161-170.

Paintings:

To the right of the main desk, the exhibition space opens up to grand cathedral ceilings and a spectacular arrangement of paintings. The paintings are hung in a unique manner, reminiscent of Early Modern cabinets of curiosity or the nineteenth century Salon shows in Paris. Paintings are hung two on top of each other, at different heights, and fit together like a puzzle (Figures 5-7).



Figure 5. *Paintings, View 1*. Rockwell Kent Gallery. Digital Photograph.

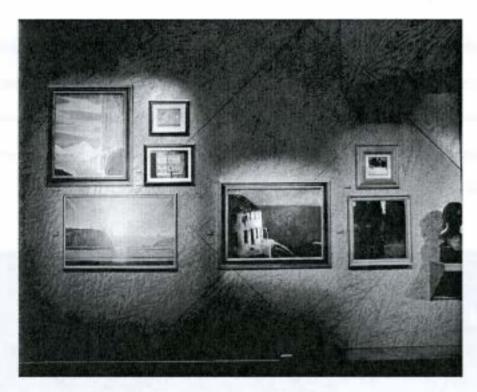


Figure 6. *Paintings, View 2*. Rockwell Kent Gallery. Digital Photograph.



Figure 7. *Paintings, View 3*. Rockwell Kent Gallery. Digital Photograph.

This arrangement was likely utilized due the necessary alternations inherent in moving a pre-formed exhibit into a new gallery space. *The Rockwell Kent: This is My Own* exhibit was originally designed for the larger, more traditional exhibition space at SUNY Albany. The Rockwell Kent Gallery has less wall space and a distinctive floor plan. If we assume that the new space created a want of space and that the Plattsburgh State Art Museum had a desire to display all the artwork used in the SUNY Albany exhibition, we can deduce that it was necessary to stack paintings to make the best use of space.

No matter the reason for the arrangement, it works well for the gallery space. The stacked appearance challenges the typical set-up. The standard display involves consistently spacing paintings and hanging them in a straight line at eye-level, or the commonly used museum standard of 58 inches. ⁵² This arrangement would not have worked as well in the unique exhibit space. The traditional arrangement would have allowed the paintings to be lost within the vast expanse of patterned wood. Instead, the stacked arrangement forces the viewer to see at the paintings in a different manner. It interrupts personal expectation, counters the distraction of the walls, and challenges the viewer to evaluate the paintings for themselves.

The mode of hanging Kent's paintings helps the viewer concentrate on the paintings, but the effect of the wall material should be noted to further illuminate the effects of the physical context. The gallery walls are made of Avodire, a distinctive wood used in West Africa and commonly known as African Furniture Wood. The juxtaposition of the large, colorful paintings and the exotic, patterned wood wall causes the two elements to compete for visual dominance. This is an example of the difference between theory and practice. Theory recommends neutral

⁵² Smithsonian Institute, "Smithsonian Guidelines for Accessible Exhibition Design," (PDF file), downloaded from the Smithsonian website, http://accessible.si.edu/pdf/Smithsonian%20Guidelines%20for%20accessible%20design.pdf. accessed March 2013.

wall colors to minimize environmental distraction. Practice requires that the current gallery be used with its distinctive architectural features.

The physical context accounts for all of these elements of architecture, object arrangement, and the feel of the space. It promotes for the idea that learning does not occur in isolation from the objects experienced in the real world. Learning is situated within the physical environment. Therefore, visitor learning experiences can be either helped or hindered by the physical design of the museum.⁵³

Understanding this experience of physical space can help museum professionals create a better fit between visitor needs and museum exhibitions. When a museum exhibit is thoughtfully constructed, the contexts can be guided in ways that encourages museum learning and produces wonderful pedagogical outcomes.⁵⁴

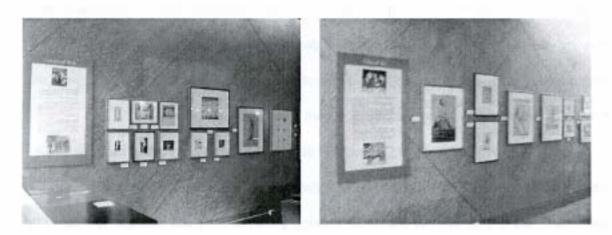
Balcony: Commercial Endeavors and Political Tendencies

After moving around the rest of the first floor, there is a set of stairs and a small free-standing sign reading "exhibition continues upstairs." Once upstairs, the landing affords a view of the entire balcony section. The long narrow space has two-dimensional artwork on the left wall and a number objects in low cabinets built into the railing.

The artwork on the balcony walls addresses Kent's commercial and political artwork. On the left is a didactic panel followed by a collection of commercial prints (Figure 8). It illustrates the commercial pursuits Kent untook to support his family. On the right is a didactic panel explaining his controversial political views and a subsequent selection of politically charged art (Figure 9). Together, the didactic panels and corresponding artwork tell two separate yet interwined pieces of Kent's life.

⁵³ Dierking, The Role of Context, p. 6.

⁵⁴ Falk and Dierking, Learning from Museums, p. 65.



Figures 8 and 9. *Commercial Art & Political Art*. Rockwell Kent Gallery. Digital Photograph.

The displays are contextualized by words on the panels and speak to the larger story. 55 Each object works in conjunction with the rest to introduce the visitor to Kent's role as a commercial artist and his involvement with controversial politics. Presenting a combination of objects, corresponding images, and words, the display emphasizes the coherence of the story, transmits the intended message and privileges the narrative's general truth over the specific stories of each artifact. 56

With this in mind, it is important to realize that objects are capable of carrying many meanings, susceptible to the imposition of many meanings, and open to manipulation in terms of meaning.⁵⁷ We see things according to what is said about them.⁵⁸ For instance, the Political didactic panel stayed neutral while relaying the community's reaction to Kent's political beliefs. It states that Kent was called before US Senator Joseph McCarthy's *Permanent Sub-Committee on Investigations* for his subversive writings. If the curators had chosen to focus solely on the suspicion of being a communist, the viewer would be encouraged to view Kent's political work

⁵⁵ Hooper-Greenhill, Museums and their Visitors, p. 115.

Henning, Museums, Media and Cultural Theory, p. 91; Hooper-Greenhill, Museums and their Visitors, p. 115.

⁵⁷ Hooper-Greenhill, Museums and their Visitors, pp. 115-116.

⁵⁸ Ibid., pp. 115-116.

as unpatriotic. On the other hand, if the curators had only mentioned Kent's involvement in drawing attention to the destruction of Spain's democracy, the visitor would have been encouraged to see the positive side of his political art. Instead, the curator decided to present both sides allowing the visitor to create their own meanings.

All in all, the *Political* and *Commercial* displays on the balcony allow for free-choice learning as understood by the Contextual Learning Model. Allowing for multiple meanings of each object, the display allowed the visitor multiple points of entry and exit, into and out of the narrative. Each potential meaning that was left intact by the label information which helped more visitors connect to the information through personal experience. The display also allowed for heightened narrativity, or the power to evoke story in the visitor's mind, by focusing on the exhibit's overall narrative and privileging the narrative's general truth over the individual objects. Finally, the combination of objects, words and images created a physical context that helped visitors connect the display's narrative with their own personal and social contexts. This portion of the exhibition illustrates the successful application of the Contextual Learning Model and should act as a model for its utilization.

Chapter 6: Joseph C. and Joan T. Burke Gallery

A Selection of Rockwell Kent Paintings

Due to a window replacement project in the Feinberg Library, the Rockwell Kent Gallery was closed during the summer of 2013. The director of Plattsburgh State Art Museum, Cecilia Esposito, chose to display a selection of Rockwell Kent paintings in the rotating exhibit space, the Joseph C. and Joan T. Burke Gallery. This decision allowed the public continued access to the permanent collection while showcasing a selection of Kent's paintings.

The first thing most repeat visitors noticed - including the volunteer docents who staff the galleries regularly - was how striking the paintings were in their new setting. They routinely mentioned how big, colorful, and captivating the work appeared in its new location. These comments were an ideal opportunity to strike up conversation and collect data on how context affected the visitors' and docents' interaction with art. The docents were especially perceptive due to their experience of the artwork as they appeared in both gallery spaces. They could easily make comparisons and remark on how they and others react to Kent's work.

To keep in line with the typical visitor experience, this chapter will explore the temporary exhibit much in the same manner as the previous chapter. The assumptions and observations noted in the following sections will be based on conversations with docents, what they noticed about visitors' behavior, and my own observations of visitor behavior. This observational data is supplemented with published findings such as the American Alliance of Museum's visitor data reports and scholarly studies on museum visitor experience. Overall, the experience will be discussed in terms of the Contextual Learning Model.



Figure 10. A Selection of Rockwell Kent Paintings, View 1. Joseph C. and Joan T. Burke Gallery. Digital Photograph.

A Visual Narrative

Walking into the gallery, a variety of brightly colored paintings seem to pop off the walls. (Figure 10) The paintings appear larger and brighter than expected. The initial impression of the paintings is heightened by the previous experience of them in their permanent home, the Rockwell Kent Gallery. The difference in response is due in part to the fact that meaning is framed within and constrained by prior knowledge. The repeat visitor may subconsciously expect to see the paintings as they appeared before — in dimmer light, in a stacked arrangement, and on a decorative wood backdrop. The arrangement in the *Joseph C. and Joan T. Burke Gallery* presents the paintings in a substantially different manner. The paintings are more

⁵⁹ Ibid.

brightly lit, set against white walls, and hung one beside another. This change of environment helps the visitor reassess his/her past understanding of the paintings and fit the new experience into the pre-existing knowledge constructs of his/her personal context.

The personal response is followed by a sociocultural confirmation of ideas. A docent is seated to the right of the doors and looks up to offer a welcoming greeting. The docent strikes up a conversation about her impressions of the paintings and how she thinks they change in the new physical environment. They appear larger, brighter, and seem to be more lively. She also admits that she is more motivated to interact with them now than she ever was in their original setting. The conversation continues in this vein. Such conversation allows both parties to use each other as vehicles for deciphering new information, to reinforce shared beliefs, to influence each other's understandings, and for making meaning as part of a larger sociocultural group. 60 The result of the collective meaning-making session is an agreement that the change of context has altered the previous understanding of Kent's paintings.

At the end of the conversation the docent points the left explaining that the paintings are set up in chronological order and that it is easier to see Rockwell Kent's progression as an artist if the paintings are viewed in order (Figure 11). This additional sociocultural interaction influences how one views the exhibition. Moving through the gallery in chronological order, it is clear that the progression of paintings is a visual depiction of Kent's life. The arrangement is intended to illustrate distinct stages of his life as defined by the places he lived and visited.

⁶⁰ Ibid.



Figure 11. *A Selection of Rockwell Kent Paintings, View 2*. Joseph C. and Joan T. Burke Gallery. Digital Photograph.

By viewing the exhibition in the intended order and understanding the purpose at the start, the visitor is able to focus on making the intended connections rather than deciphering a theme. This is due to the fact that people see things according to what things are said about them. Objects have multiple meanings and are susceptible to manipulation and imposition of meaning. The docent's guided direction is intended to help the visitor more easily gain valuable information on Kent's life and paintings. In the end, the new information is meant to inform understanding and alter pre-conceived ideas on the exhibition.

A noted difference between the temporary and permanent displays is the way the Kent's story is communicated. The narrative is presented in a purely visual manner. This is in line with

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⁶¹ Hooper-Greenhill, Museums and their Visitors, pp. 115-116.

the ocular-centric tendency of art museums.⁶² There is a long standing tradition of arranging objects to encourage visual dialogue between objects and then using that strategic juxtaposition of objects to tell the intended story.⁶³ This tradition of visually dominated narrative is based on a long standing theory that suggests meaning is inherent to objects and that objects can communicate their own meanings.

Museum education research suggests that this idea is not necessarily true and as a result it has lost favor in the past decade. It has become standard practice to include interpretative materials that interpret the indented meanings for visitors. The Plattsburgh State Art Museum opted to include wall labels for this exhibition. Each label includes the artist's name, title of the work, medium, date it was created, and the accession number. Reading these wall labels allowes the visitor to situate each painting into the larger narrative. Specifically, the information confirms the geographic location pictured and the year the piece was painted.

The additional interpretative materials, such as the didactic panels, employed in the permanent display at the Rockwell Kent Gallery were not transferred to the Joseph C. and Joan T. Burke Gallery. The reasons behind this decision is unknown but noteworthy as it removed the benefits associated with the personal and sociocultural contexts inherent in narrative. That being said, the lack of traditional interpretation was compensated for with the use of silent pedagogy.

Silent Pedagogy- The Non-Verbal Communicator:

The successful communication of information between visitor and museum can be helped or hindered by what Eisner and Dobbs call "Silent Pedagogy." Silent Pedagogy is defined as a non-verbal means of communication that provides museum visitors with cues for "perceiving,"

⁶² Fiona Candlin, "Museums, Modernity and the Class Politics of Touching Objects," in Touch in Museums: Policy and Practice in Object Handling, edited by Helen J. Chatterjee (Oxford: Berg., 2008), p. 10.
⁶³ Ibid.

thinking about, and appreciating" museum objects. 64 Largely visual, but sometimes aural or tactile, these cues include the way all museum artifacts are displayed, the themes that relate one work to another, and the overall effectiveness of the installation. 65 All of these elements fall under the physical context of the Contextual Learning Model and can be used intentionally to help visitors gain insight from the exhibit displays. 66

In A Selection of Rockwell Kent Paintings there are number of examples of silent pedagogy. The first is the conjunctive use of color and light. The second is the arrangement of objects within the physical space. Finally, there is the traditional gallery space as a whole. The scale, shape and size of a the exhibit affects the informational connections a visitor creates and the architectural features of the gallery can settings can trigger previously learned information.⁶⁷

The application of silent pedagogy can be used to design a space that produces desired psychological effects in visitors, effects that can be heightened by the careful choice of visual cues. 68 For example, color can calm visitor's wanderings, excite the visitor's interest, and hold their attention. Lighting levels can create similar effects. Used in conjunction with each other, each element enhances the effects of the other.

The Joseph C. and Joan T. Burke Gallery utilizes both color and lighting to produce the desired psychological effects associated with them. The paintings are displayed against an eggshell white wall. The white wall is intended to limit environmental distraction and focus the visitor's attention to the large, colorful paintings. The lighting, which is diffused according to

⁶⁴ Elliot W. Eisner and Stephen M. Dobbs, "Silent Pedagogy: How Museums Help Visitors Experience Exhibitions,"

Art Education 41, no. 4 (1988), pp. 6-15.

65 Duncan F. Cameron, "A Viewpoint: The Museum as a Communications System and Implications for Museum Education," Curator IX, no. I (1968), pp. 33-40; Eisner and Dobbs, Silent Pedagogy, pp. 6-15.

66 Eisner and Dobbs, Silent Pedagogy, pp. 6-15.

⁶⁷ Benjamin Filene, "Are We there Yet? Children, History and the Power of Place," in Connecting Kids to History with Museum Exhibitions, edited by D. Lynn McRainey and John Russick (Walnut Creek, CA: Left Coast Press,

⁶⁸ Henning, Museums, Media and Cultural Theory, p. 92.

conservation standards, is also used in focusing the visitor's attention. Both color and lighting are meant to close off distraction. For visitors who are accustomed to the bombardment of the senses that is characteristic of modern society, these visual cues offer an illusion of coherence and encourage visitors to turn their focus from the distracted wandering of everyday life towards the new information at hand.⁶⁹

The arrangement of objects is also laden with the effects of silent pedagogy. In the temporary exhibition, Kent's paintings are consistently spaced. The resulting viewing experience is a prime example of the advantages of an appropriately designed free-choice learning environment. The spacious feeling of the exhibition and the ordered display encourages visitors to contemplate the objects and allows for visual dialogue between paintings. The spacial ordering of these objects is consistent with the optimal fractal density of materials. Physicists have found that people invariably prefer a certain mathematical density - not too thick, not too space. Museum displays that conform to the optimal fractal density - about 1.3 on a scale of 1 to 2 from void to solid - are more conducive for learning. 70 Plattsburgh State Art Museum adhered to these ideas by utilizing optimum object spacing and in turn helped promote visitor learning through the physical context.⁷¹

Finally, there is the gallery space taken as a whole - the scale, shape and size of the exhibit. The room is an open rectangle with freshly painted white walls, bright artificial light, and paintings hung at a height of 58". Overall, the Joseph C. and Joan T. Burke gallery fits the model of a traditional gallery.

⁶⁹ Ibid., 44.

⁷⁰ Lance Hosey, "Why We Love Beautiful Things," New York Times, February 15, 2013, http://www.nytimes.com/2013/02/17/opinion/sunday/why-we-love-beautiful-things.html? r=0, accessed December 5, 2013.
The Role of Context, p. 10.

The traditional arrangement allows the visitor to understand the exhibit as an art display and proceed with appropriate expectations. Museum goers have been conditioned to expect art to be hung against white walls in a rectangular space with consistent lighting. When art is displayed in such a setting, museum visitors understand what to expect and what is expected of them. This can be helpful in a pedagogical sense.

People learn more effectively when they know what is expected of them and feel secure in their physical surroundings. When museum visitors feel oriented in the space, it can enhance their learning. Consequently, meeting expectations can improve people's ability to construct meaning form their experiences and in turn facilitate learning. The opposite is also true. If expectations are unmet, it directly affects the visitors' ability to focus on new information.

Learning will consequently suffer. Therefore, it is reasonable to deduce that learning situations are more successful if they reinforce expectations.

The Joseph C. and Joan T. Burke Gallery helps to prove the previously mentioned sentiments. By confirming museum norms, the museum improves visitors' learning. The visitor is free to focus on incorporating new information on the art into their pre-existing mental structures.

Taken together, the color, lighting, arrangement of objects, and the overall physicality of the gallery, show that silent pedagogy can be successfully used to achieve the museum's learning goals for its visitors.⁷³

⁷² Dierking, The Role of Context, pp. 8-9.

⁷³ Eisner and Dobbs, Silent Pedagogy, pp. 6-15.

Chapter 7: Summary of Findings

It is no accident that I chose to compare the Rockwell Kent Gallery and the temporary exhibition, *A Selection of Rockwell Kent Paintings*, in the Joseph C. and Joan T. Burke Gallery. Both displays help us to understand the complex relationship between the personal, sociocultural, and physical contexts, as delineated by the Contextual Learning Model. The comparisons also show that at any given time, any one of these three contexts can contribute significantly to the visitors' experiences. As a whole, the Contextual Learning Model provides an excellent framework for organizing information about museum visitor experience.

The Rockwell Kent Gallery

At the outset of this paper, I stated that learning does not occur in isolation from the real world. The permanent display of artwork in the Rockwell Kent Gallery shows that learning manifests as a complex array of a visitor's personal, sociocultural, and physical contexts. The interactions continually shift among the three contexts and work together to contribute significantly to visitors' museum experiences, though not necessarily in equal or fixed proportions.

First, the literary alcove utilized narrative to illuminate the personal context. The reminiscing visitors were like their own museums with individualized collections of interests, prior knowledge, and life experiences.⁷⁴ Each visitor situated the new information into his/her own web of personal experiences and pre-existing knowledge constructs.

Narrative was also used in the subsequent section, but this time it went beyond individual (i.e. personal) learning and illustrated the socioculutral context of storytelling. The conversation

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⁷⁴ Ariho, "Getting a Handle on the Past," p. 206.

between docent and visitor acted as a way to share information and resulted in socially-mediated learning. The docent, who was perceived as a knowledgeable cultural representative, further affected learning by influencing the visitor's interpretation of the information. Together, the social and cultural aspects of collaborative meaning-making represent the sociocultural context.

The third context, the physical context, manifested in the arrangement of the paintings and how the display corresponded to the architectural design of the entire space. The resulting observations, such as the deviations between theory and practice, supported the idea that learning is situated in the physical environment and that visitor learning experiences can be helped or hindered by the physical design.

Finally, all three contexts of the Contextual Learning Model were utilized in conjunction with one another in the balcony arrangement. The display focused on the multiple meanings of objects and left each potential meaning intact. The multiple points of entry and exit into and out of the intended narrative provided visitors with numerous opportunities to connect new information with their personal experiences. The intended narrative, as presented by the museum, was also maintained by focusing on the overall narrative rather than the individual objects. Finally, the combination of objects, words and images added to the physical context which in turn facilitated learning. Taken as a whole, this portion of the exhibition illustrated the successful application of the Contextual Learning Model.

Joseph C. and Joan T. Burke Gallery

The temporary exhibition, A Selection of Rockwell Kent Paintings, also illustrated the successful application of the Contextual Learning Model. It built upon the ideas previously discussed while further illuminating the personal, sociocultural, and physical contexts of the Contextual Learning Model.

The personal context was evident in the visitor's initial response to Kent's paintings. The experience of the paintings in a new context allowed regular visitors to reconsider the paintings and place their new understandings into their pre-existing knowledge frameworks. The visitor's past experiences, preconceived notions, and personal expectations became even clearer when the new display was held in direct contrast with the appearance of the paintings in their permanent location. The resulting comparison and re-interpretation of knowledge was affected by - and happened within - the personal context.

The visitor's learning experience is further mediated by the conversation with the gallery docent. Such a verbal exchange of ideas allowed both parties to use each other as vehicles for deciphering new information and collaboratively make meaning as part of a larger group. As such, the conversation acted as a sociocultural confirmation of ideas.

Finally, the physical context utilized silent pedagogy, and its connections to the Contextual Learning Model, to impact the visitor's learning experience. Some of the physical elements included the traditional gallery structure, the color of the walls, and object arrangement. Together, the physical context of the gallery conveyed the intended information in the form of a visual narrative.

Considering the temporary exhibition as a whole, it becomes clear that the gallery lent itself well to the Contextual Learning Model. First, the exhibit set forth a narrative of Rockwell Kent's life and conveyed the messages through the physical cues of silent pedagogy. Second, the visitor brought his/her own expectations and consequently interpreted the presented messages by placing them within the context of his/her past experiences. Third, the docent relayed her own experiences to the visitor and contributed to the collaborative meaning-making associated with the sociocultural context. Together, the variety of interpretations resulted in the constant

negotiation between the messages set forth by the museum, presented by the gallery workers, and those created by the visitor.

Comparison of Displays

The Rockwell Kent Gallery and the Joseph C. and Joan T. Burke Gallery illuminate the successful application of the Contextual Learning Model. They both work to show the power of context in dictating a person's ability to interact with and internalize new information. When compared, it becomes evident that there is no set formula for success. Therefore, the galleries' similarities and differences can be used to generalize about the applications of the Contextual Learning Model.

For instance, both galleries support the idea that visitor experiences are personal in nature. Visitors to the galleries brought preconceived expectation and their own past experiences. They interprated messages by placing them into pre-existing knowledge frameworks. Narrative was used in various ways to create connections between the information presented and a visitor's personal life. Maximizing the number of connections visitors' make with their personal experiences facilitate quality learning experiences. Therefore, it is safe to deduce that using well developed narratives in an exhibition can maximize a visitor's ability to incorporate new information into the framework of their past experiences.

The galleries are also places of sociocultural knowledge.⁷⁶ They present culturally informed narratives that incite conversation. Both docents relayed their own experiences and interpreted the museum's intended messages through conversation with the visitor. The resulting

⁷⁶ Ibid.

⁷⁵ Chang, Interactive Experiences and Contextual Learning in Museums, p. 170-186.

exchange of idea led to a joint meaning-making session and an opening of the visitor's mind to a collective, sociocultural narrative.⁷⁷

The way the galleries carried out their applications of the physical context differed significantly. Some of these differences included the relative size of space, color of walls, lighting levels, and how items were arranged on the wall. Despite the physical differences, both spaces successfully use the physical context as a pedagogical tool. The scale, shape and size of a museum exhibit can affect the informational connections visitors create and architectural features of museum settings can trigger previously learned information. Consequently, it can be concluded that exhibit design can be crafted to provide an appropriate physical context to facilitate meaningful learning experiences for visitors.

Viewed together, the generalized applications of these three contexts of the Contextual Learning Model can be used to understand visitor experience and the process of meaning-making. This contextual understanding is important for museum professionals and the Plattsburgh State Art Museum because it allows for the recognition of which techniques work, how they work, and why they have the desired effect. It also helps professionals think and plan for the types of experiences they want for their visitors. Thus, the Contextual Learning Model can be successfully utilized as a tool to craft the ideal fit between visitor-meaning making and exhibit design.

⁷⁷ D. Lynn McRainey and John Russick, Connecting Kids to History with Museum Exhibitions, (Walnut Creek, Calif.: Left Coast Press, 2010), pp. 98-99.

Chapter 8: Conclusion

This thesis has attempted to do two things. First, I have demonstrated that John Falk and Lynn Dierking's Contextual Learning Model is an effective tool in understanding a visitor's meaning-making process through the exploration of the Plattsburgh State Art Museum's exhibitions. Second, it has illustrated that visitor learning is fundamentally a meaning-making activity that involves a constant negotiation between the stories given by museums and those brought by visitors. As such, museums can be designed in ways that facilitate and support visitor learning.

The implication of these arguments is that museums can actively encourage or impede visitor learning. Establishing the Contextual Learning Model as a framework to understanding the complexities of visitor learning is one way of acknowledging how museum practices can profoundly affect visitor learning. So what does all this mean in terms of the museum field's efforts to better understand visitor learning? This indicates the need to think about how museums can fashion a better fit between their approach to interpretive material and the visitors' learning needs. Using this constructivist understanding, museums will be able to grow with the times and continue to be effective educators for years to come.

Appendix: Alternative Applications

Museum Trends

Forecasting in the museum field predicts that the U.S. education system is on the cusp of transformative change. There is decreased satisfaction with the traditional school system and growing focus on the development of a core set of skills for the 21st century. Museums are perfectly situated to play a key role in the new educational landscape.⁷⁸

The American Association of Museums and the Center for the Future of Museums, predict that museum will become leaders in educational innovation and act as learning hubs, teaching critical thinking skills and the ability to creatively synthesize information through physical interaction with collections.⁷⁹

The Plattsburgh State Art Museum, like many other college museums, could be in a position to take part in this transformative change and new educational landscape. To help facilitate this transition, I propose the following alternative applications of the Contextual Learning Model.

Adding a Story:

First, it is important to establish an overall message that the museum wishes to communicate to its intended audience. Once that message is established, the overarching narrative can be applied to the exhibitions. This communication can be achieved with the help of descriptive labels, didactic panels, informative brochures, and other educative materials to help tell the story.

⁷⁸ Scott Kratz and Elizabeth Merritt, On the Horizon: Future of Education, Museums and the Future of Education (PDF), downloaded from the American Alliance of Museums website, http://www.aam-us.orgldocs/default-document-library/on-the-horizon-web-version.pdf?sfvrsn=O, accessed May 2013.

⁷⁹ Ibid.

Having an overreaching narrative will help to address the sociocultural and personal facets of the Contextual Learning Model. Stories help visitors retain information by allowing them to tie new information into their pre-existing knowledge.

Language

Another consideration when applying the Contextual Learning Model to narrative is intellectual acessibility. Visitors come to museums at all different learning levels. Museum standards suggest that all text should be written for a 7th grade reading level. This guideline is supported by the idea that informational text can be organized in different ways to achieve varying levels of accessibility. That being said, theory and practice do not always align with one another. It can be a challenge to produce texts that are informative, interesting and which can be accessed and appreciated by a broad range of visitors. The language used in signage is often complicated jargon, unaccessible to most visitors on a personal level. This can hinder general comphrehension and therefore prevent the average visitor from connecting with new information that would influence the sociocultural context. Museum professionals should be aware of this potential disparity so that they can ensure signage meets the needs of visitors.

Signage

Creating a tangible and comprehensible narrative is only the beginning. One way to convey themes and encourage pedagogical opportunities is through signage. The content and comprehensibility of signage gives museums a way to communicate with their visitors and therefore make the artifacts more assessable. Plattsburgh State Art Museum provides wall labels that contain the artist's name, title of the work, medium, date it was created, and the accession number. This is standard information that most museums provide. Many museums

Louise J. Ravelli, Museum Texts: Communication Frameworks, (London: Routledge, 2006), p. 49.

⁸¹ Ibid.

⁸² Eisner and Dobbs, Silent Pedagogy, pp. 6-15.

also use these wall labels to help visitors recognize interesting themes and make personal connections with the art. They help them connect to the overarching narrative. At Plattsburgh State Art Museum the wall labels do not provide this type of interpretive description. The reasoning for this omission is unknown. It could be limited manpower, lack of readily accessible research, or even budget. No matter the reason, it is important to note that interpretive descriptions of individual artifacts can be routinely used on wall labels as a way to communicate meaning to museum visitors.

Another form of interpretative signage is didactic panels. This is the method of signage serves as the main source of interpretation for the Plattsburgh State Art Museum. The didactic panels used in the Rockwell Kent gallery interpret relevant themes and converge to tell the overarching narrative of Kent's life. The majority of the panels are displayed in the transitional before entering the gallery. Grouping the panels in this manner is presumably necessary.

Possible reasons why Plattsburgh State Art Museum chose to place these in this manner include available wall space or the spatial difficulties inherent in adapting an exhibition to a different, nontraditional space.

While recognizing the practicality of grouping signage at the front, it is important to note that this arrangement may hinder the visitor's ability to connect with exhibit as outlined in the three contexts of the Contextual Learning Model. The average visitor may not take the time to read all the panels in their current arrangement and is therefore at risk of entering the exhibition without the benefit of this interpretative material. It would be ideal to have the panels arranged within the main exhibition space and juxtaposed with the corresponding section of artwork. This advantageous arrangement would facilitate visitor learning by maximizing the opportunities to connect artwork with the personal, sociocultural and physical contexts of the Contextual

Learning Model. The optimum arrangement would also require an ideal gallery with unattainable improvements such as more wall space.

In an ideal world the relationship between theory and practice should be inseparable - theory informing practice and practice reforming theory. In reality, there are many difficulties in translating theory into good practice. ⁸³ Negotiating this divide can be both perplexing and challenging. ⁸⁴ To address the disparate relationship of theory and practice, Museums can take a series of steps to meet visitors' needs and effectively communicate messages that is consistent with the process of contextual learning.

Redesigning the story:

By suggesting narrative and traditional signage practices as possible applications of the Contextual Learning Model, I do not mean to evoke the static curator-dominated narratives characteristic of the not so distant past. The changing intentions of museums and the communication methods of the world beckon a more up to date approach to narrative. Today's visitors have formed new habits of attention in response to rapid changes in social life, new popular entertainments and forms of transport and communication. Traditional labeling methods may not be able to keep up on their own.

The age of smart devices - characterized by the constant bombardment of the senses, an addiction to portable technology, and the perpetual connection to the world through internet and social media - has presented a new reality of increasingly shortened attention spans and altered expectations of communication. To meet this need, it may be wise to embrace newer forms of display.

⁸³ Mayar, Bridging the Theory-Practice Divide, p. 15.

⁸⁴ Ibid.

⁸⁵ Henning, Museums, Media and Cultural Theory, p. 53.

OR Codes:

Even if Museums embrace the concept of redesigning exhibitions to allow for visitordirected meaning-making, there are practical limitations. Any change in display requires time and money. This is not always an option for a small museum. An inexpensive and relatively simple solution is to utilize mobile technology. This method could reach visitors at their individual levels of interest and learning ability while only costing museum staff their time and effort.

Using technology is in line with the National Endowment for the Arts' 2012 survey of the public's participation with the arts. The study found that more than two-thirds of American adults (71 percent or 167 million) accessed art via electronic media. 86 This statistic is not surprising when one considers that 56% of American adults are smartphone users.⁸⁷ The majority of museum visitors are also armed with smart devices. Tapping into this readily available resource saves the museum money associated with providing audio tours, while still providing an interactive, educative experience for visitors.

Quick response (QR) codes are one way to encourage interactive experiences that appeal to a technologically inclined population. OR Codes are square barcodes that translate the patterns into a url or another form of usable information. The two-dimensional matrixes launch webpages, pull up videos, view images, and link users to numerous multi-media content. Museums have begun to utilize this technology in the name of education. QR codes link visitors to audio tours, encourage participation in audience response boards, and are used as an alternative to wall text. For instance, the Susquehanna Art Museum uses QR codes to illustrate the artistic process behind exhibited objects by linking the visitor to audio and video

⁸⁶ National Endowment for the Arts, "Highlights from the 2012 Survey of Public Participation in the Art," September 26, 2013, http://arts.gov/news/2013/national-endowment-arts-presents-highlights-2012-survey-publicparticipation-arts#sthash.08LBaHJP.dpuf, accessed October 2013.

87 Mobile Commerce and Engagement Statistics, www.digby.com/mobile-statistics, accessed March 22, 2014.

clips of the artists explaining their ideas about their work.⁸⁸ The Reynolda House Museum of American Art uses them in a slightly different way by allowing visitors to see inside the many compartments of the 1780 Demi-lumi cabinet.⁸⁹

QR codes allow the visitor to tap into the personal and sociocultural contexts outlined in the Contextual Learning Model. First, the optional nature of QR codes allows the visitor to choose what he/she learns and this in turn helps the visitor develop his/her own ideas about the presented information. Additionally, the nature of using one's own smart device can enhance the personal context. The familiarity with his/her personal device allows the visitor to more easily connect the information with his/her past knowledge and experiences. Second, the audience response boards often attached to the information linked to QR codes are sociocultural in nature. Visitors can post their own understandings and/or respond to comments made by other visitors. The resulting "conversation" helps to shape the visitor's understanding of the new information in terms of the sociocultural context. In both contexts, the use of QR codes helps the visitor make meaning from the electronic information.

Utilizing mobile technology matches the communication habits of today's visitors and addresses the personal and social contexts of the Contextual Learning Model. But, there is a downside. It adds to the growing disconnect between the individual and his/her physical surroundings. The typical visitor's world is a highly digital one and a digital connection can't provide the weight of a glass jar, the smell of an old book, or the cool, smooth surface of marble. Therefore, if a museum relies solely on the digital method of communication, it may ignore the third facet of the Contextual Learning Model: the physical context.

⁸⁸ Susquehanna Art Museum, "Doshi Gallery: Exhibitions," from the SAM website, http://sqart.org/?s=QR+codes, accessed March 23, 2014.

⁸⁹ Reynolda House Museum of American Art, "How do I scan a QR code," from the Reynolda House website, http://www.reynoldahouse.org/connect/community/post/how-do-i-scan-a-qr-code, accessed March 23, 2014.

Strategic Patience:

One way to encourage visitor involvement with their physical surroundings, while still utilizing the ideas learned from the Contextual Learning Model, is to create an experience that encourages meaning-making. Some museum professionals suggest that visitor experience is enhanced when technology is removed.

There is a growing movement in the museum field that is opposed to technology laden exhibitions and the rush to keep up with the fast-paced digital landscape. Proponents of this movement question if the speed of entertainment trends allows visitors to have sufficient time to contemplate their physical surrounding and reflect on their experiences. They argue that museums should strive to become places of respite where visitors can remove themselves from the constant connection with the digital world and find space to think.⁹⁰

Professor Roberts is accomplishing this mindful moment through a project she describes in her article *Patient Teaching*. Professor Roberts requires students to look at a single work of art for their semester-long research paper. The first part of the assignment is for students to sit in the gallery and look at their painting for 3 hours. ⁹¹ At first, the idea of sitting in front of one object for three hours is daunting. It seems excessively long.

The 3-hour long viewing session is meant to show students that there are details and visual relationships that take time to perceive. It is often assumed that vision is instantaneous. Yet just because you've looked at the object doesn't mean you comprehend it; the information is

⁹⁰ Lisa Junkin Lopez, "Too Fast to Go Slow," Center for the Future of Museums Blog, January 14, 2014, futureofmuseums.blog.com/2014/01/too-fast-to-go-slow.html, accessed January 16, 2014.

⁹¹ Jennifer L. Roberts, "The Power of Patience: Teaching Students the Value of Deceleration and Immersive Attention," Harvard Magazine, November-December 2013, harvardmagazine.com/2013/11/the-power-of-patience, accessed January 16, 2014.

not instantly available to your consciousness. Sometimes several hours of looking are needed to actually see the details necessary for appropriate interpretation.⁹²

Museums are also utilizing this idea of strategic patience by implementing slow down activities. The Jane Addams Hull-House Museum is the creator of the slow museum project. ⁹³ They hypothesize that slow down activities, those museum activities done at a slower pace, can produce more meaningful experiences. ⁹⁴

One example from the Jane Addams Hull-House Museum involves a 40 page prose-poem that corresponded with a single object. The museum invited visitors to sit down for 30 minutes to read the poem and have a cup of tea. This relaxing experience gave visitors the ability to slow down and engage with an object for an extended period. This type prolonged reflection is hard to accomplish in today's busy world.

Other museums have seen the wisdom in this approach and joined in the movement by participating in Slow Art Day. The national day encourages museum visitors to stop, abandon their never-ending to-do lists, and view a handful of objects for a full hour. In this single slow down activity, all three elements of the Contextual Learning Model are met. The hour of examining allows the visitor to form his/her own ideas of the art. The personal exploration allows the visitor to transform visual access into learning by connecting the information obtained to personal experiences and past knowledge. Sitting still in a single space allows for the physical environment to appropriately direct the visitor's attention to the object. Finally, the informal lunch gathering allows for each visitor to express their ideas and share knowledge they obtained from their personal experience. The resulting conversation helps collectively shape the group's

⁹² Lopez, Too Fast to Go Slow.

⁹³ Ibid.

⁹⁴ Ibid.

understanding of the piece in terms of the sociocultural context. When viewed as a whole, all three contexts weave together to form the ideal learning experience.

Conclusion:

Whether embracing the fast-paced communication trends of modern technology or rejecting them in favor of the creativity-inspiring reflection inherent of the strategic patience/slowness, the museum remains unchanged in its role as communicator. Either approach allows the visitor to choose their preferred method of learning. Together, these alternative applications illuminate a promising direction for a new age of museums in which museums "actively support, facilitate, and enhance the many kinds of meaning[s]... and explicitly incorporate human needs into exhibit goals and institutional missions." Museums can prepare for such future by focusing on how audiences interact with objects and consider the everchanging modes of communication.

⁹⁵ Silverman, Visitor Meaning-Making in Museums for a New Age, pp. 161-170.

Works Cited

- American Association of Museums, *Excellence and Equity*, 1992. http://www.edcom.org/Files/Admin/EdComBookletFinalApril805.pdf (accessed May 12, 2013).
- American Association of Museums. "What is a Museum?" http://www.aam-us.org/aboutmuseums/whatis.cfm (accessed May 2012)
- American Association of Museums: Standing Professional Committee on Education. *Excellence in Practice: Education Principles and Standards*. pdf. 2002. Revised 2005. http://www.edcom.org/Files/Admin/EdComBookletFinalApril805.pdf
- Ariho, Bernie. "Getting a Handle on the Past: The Use of Objects in Reminiscence Work." in *Touch in Museums: Policy and Practice in Object Handling*. Helen J. Chatterjee (ed), Oxford: Berg. (2008): 205-212.
- Cameron, Duncan F.. "A Viewpoint: The Museum as a Communications System and Implications for Museum Education." *Curator* IX, no. I (1968): 33-40.
- Candlin, Fiona. "Museums, Modernity and the Class Politics of Touching Objects." in *Touch in Museums: Policy and Practice in Object Handling*. Helen J. Chatterjee (ed), Oxford: Berg. (2008): 9-20.
- Chang, EunLung. "Interactive Experiences and Contextual Learning in Museums." *Studies in Art Education* 47, no. 2 (2006): 170-186.
- Crotty, Michael. *The Foundations of Social Research: Meaning and Perspective in the Research Process.* Thousand Oaks, CA: SAGE Publications, Inc., 2003.
- Dierking, Lynn D. "The Role of Context in Children's Learning from Objects and Experiences." in *Perspectives on Object-Centered Learning in Museums*, Scott G. Paris (ed.), Mahwah, NJ: Lawrence Erlbaum Associates (2002): 3-18.
- Eisner, Elliot W., and Stephen M. Dobbs. "Silent Pedagogy: How Museums Help Visitors Experience Exhibitions." *Art Education*, 41, no. 4 (1988): 6-15.
- Falk, John H., and Lynn D. Dierking. *Learning from Museums: Visitor Experiences and the Making of Meaning.* Walnut Creek, CA: AltaMira Press, 2000.
- Filene, Benjamin. "Are We there Yet? Children, History and the Power of Place." In *Connecting Kids to History with Museum Exhibitions*, D. Lynn McRainey and John Russick, 173-195. Walnut Creek, CA: Left Coast Press, 2010: 178.

- Goulding, Christina. "The Museum Environment and the Visitor Experience." in *European Journal of Marketing*. 34 (3/4) (1999): 261-278.
- Hein, George E. Learning in the Museum. London: Routledge, 1998.
- Henning, Michelle. *Museums, Media and Cultural Theory*. Maidenhead: McGraw-Hill International (UK) Ltd., 2007.
- Hooper-Greenhill, Eilean. Museums and their Visitors. London: Routledge, 1994.
- Hooper-Greenhill, Eilean. Museums and Shaping of Knowledge. London: Routledge, 1994.
- Hosey, Lance. "Why We Love Beautiful Things." *New York Times*, February 15, 2013. http://www.nytimes.com/2013/02/17/opinion/sunday/why-we-love-beautiful-things.html?_r=0 (accessed December 5, 2013).
- Kittler, Friedrich. *Gramophone, Film, Typewriter*. G. Winthrop-Young and M. Wutz. (trans.) Standford, CA: Standford University Press, 1999.
- Kratz, Scott and Elizabeth Merritt. On the Horizon: Future of Education, Museums and the Future of Education (PDF) downloaded from http://www.aam-us.orgldocs/default-document-library/on-the-horizon-web-version.pdf?sfvrsn=O (accessed May 2013).
- Lopez, Lisa Junkin. "Too Fast to Go Slow." in Center for the Future of Museums Blog. Published January 14, 2014. Accessed January 16, 2014. futureofmuseums.blog.com/2014/01/too-fast-to-go-slow.html.
- Lord, Barry. "What is Museum Based Learning" in *The Manual of Museum Learning*. p 17. Barry Lord (ed.), New York: AltaMira Press (2007): 13-19.
- Mayar, Melinsa M. "Bridging the Theory-Practice Divide in Contemporary Art Museum Education" in *Art Education* 58, 2 (2005): 13-17.
- McRainey, D. Lynn, and John Russick. *Connecting Kids to History with Museum Exhibitions*. Walnut Creek, Calif.: Left Coast Press, 2010.
- "Mobile Commerce and Engagement Statistics." <u>www.digby.com/mobile-statistics</u> (accessed March 22, 2014).
- National Endowment for the Arts. "Highlights from the 2012 Survey of Public Participation in the Art." September 26, 2013. http://arts.gov/news/2013/national-endowment-arts-presents-highlights-2012-survey-public-participation-arts#sthash.08LBaHJP.dpuf (accessed October 2013).
- National Park Service GMP Dynamic Sourcebook, s.v. "visitor experience." http://planning.nps.gov/GMPSourcebook/Glossary.htm (accessed January 2013).

- Oxford English Dictionary. Oxford, UK: Oxford University Press, s.v. "context." http://www.oxforddictionaries.com/us/definition/american_english/context (accessed March 23, 2014).
- Plattsburgh State Art Museum. "Homepage." http://organizations.plattsburgh.edu/museum/. (accessed June 18, 2013).
- Reynolda House Museum of American Art. *How do I scan a QR code*. http://www.reynoldahouse.org/connect/community/post/how-do-i-scan-a-qr-code, (accessed March 23, 2014).
- Ravelli, Louise J. Museum Texts: Communication Frameworks. (London: Routledge, 2006).
- Roberts, Lisa C. *Knowledge to Narrative: Educators and the Changing Museum.* Washington, DC: Smithsonian Institution Press, 1997.
- Roberts, Jennifer L. "The Power of Patience: Teaching Students the Value of Deceleration and Immersive Attention." in Harvard Magazine. November-December 2013. Accessed January 16, 2014. harvardmagazine.com/2013/11/the-power-of-patience.
- Silverman, Lois H. "Visitor Meaning-Making in Museums for a New Age." *Curator* 38, no. 3 (1995): 161-170.
- Sener, J. "Constructivism: Asynchronous Learning Networks." *Asynchronous Learning Networks Magazine* 1, no. 1 (1997).
- Smithsonian Institute. Smithsonian Guidelines for Accessible Exhibition Design. (PDF)
 Downloaded from:
 http://accessible.si.edu/pdf/Smithsonian%20Guidelines%20for%20accessible%20design.pdf (accessed March 2013).
- Susquehanna Art Museum. *Doshi Gallery: Exhibitions*. http://sqart.org/?s=QR+codes (accessed March 23, 2014).
- Walker, Kevin. "Designing for meaning making in museums: visitor-constructed trails using mobile digital technologies." (Ph.D. diss., University of London, 2010).