

Boston University

OpenBU

<http://open.bu.edu>

Department of Art Education

Masters Research Projects in Art Education

2013-01-02

Exploring Artistic Learning Through the Creation of Tunnel Books

<https://hdl.handle.net/2144/4523>

"Downloaded from OpenBU. Boston University's institutional repository."

BOSTON UNIVERSITY
COLLEGE OF FINE ARTS
Research Study

EXPLORING ARTISTIC LEARNING THROUGH THE CREATION OF TUNNEL BOOKS

By

Janet M. Reynolds

Bachelor of Fine Arts, Notre Dame College, 1984

Submitted in partial fulfillment of the
Requirements for the degree of
MA in Art Education

Acknowledgments

I would like to express my sincerest thanks to everyone who has supported me throughout this program. To facilitators who were so supportive and patient when answering my endless questions I am deeply grateful. To all my classmates, those of you online and those I met during Summer Studios: you were a wonderful support group. Clare, Jennifer, Lorrie Ann, and Lauren, I will always remember how helpful and encouraging you were. Jo Ellen you are my hero, on paper and in life. Thank you for taking time out of your busy life to be the subject of my Hero Project. I would also like to thank my family, especially my husband, Dan, for his continuous support during this endeavor.

Abstract

This paper discusses the results of an autoethnographic, arts-based study that explored artistic learning through the creation of tunnel books. The researcher, an art teacher at a private Catholic school, chose the Painted Churches of Schulenburg, TX as the subject of the tunnel books. During the study, the researcher toured four historic churches to obtain information that guided design decisions for the tunnel books. Documentation of the tour was done through photography, video recording, and note taking. Interviews with Katherine Ruffin, book arts professor, and Rand Huebsch, printmaker, book artist, and teacher were conducted to obtain information about construction techniques, materials, and adhesives. Four tunnel books were created. During the process, materials for the tunnel books, media, adhesives, and different assembly approaches were explored. Upon completion, the books were viewed by several individuals who attended the tour of the churches, and Dr. Ann Waltz, Director of the Art School for Children and Young Adults at the University of Houston in Clear Lake, TX. The study was designed to expand artistic learning and gain information that could later be shared with middle school students at St. Clare of Assisi Catholic School. The outcomes revealed new approaches to constructing tunnel books, and applications for new and familiar media. The paper concludes with future plans for the knowledge gained, along with advice for art educators, and the field of art education.

TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	ii
ABSTRACT.....	iii
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
CHAPTER 1: INTRODUCTION TO THE STUDY.....	1
Background to the Study.....	1
Research Goals.....	2
Research Questions.....	2
Conceptual Framework.....	3
Methodology of Study.....	4
Methods of Data Collection.....	4
Methods of Data Analysis.....	5
Theoretical Framework.....	5
Significance of the Study.....	6
Limitations of the Study.....	6
Conclusion.....	7
Definition of Terms.....	7
CHAPTER 2: LITERATURE REVIEW.....	8
Conceptual Framework.....	8
Literature Review.....	9
Artistic Learning.....	9
The Painted Churches.....	10

Tunnel Books as an Art Form.....	11
Materials and Construction Techniques for Tunnel Books.....	12
Conclusion.....	13
Tacit Understanding.....	13
Theoretical Understanding.....	13
CHAPTER 3: METHODOLOGY.....	14
Design of the Study.....	14
Research Methods.....	15
Data Collection.....	17
Data Analysis.....	19
Conclusion.....	19
CHAPTER 4: RESULTS OF THE STUDY.....	21
Significance of the Study.....	22
Bias and Validity.....	23
Analysis of the Data.....	23
Schulenburg and the Painted Churches.....	23
Adhesives.....	28
Construction Techniques.....	29
Media and Materials.....	31
Results.....	33
Opinions.....	38
Conclusion.....	39
CHAPTER 5: DISCUSSION AND CONCLUSION.....	41

Discussion.....	41
Personal Impact of the Study.....	41
Impact on Practice.....	42
Recommendations.....	43
Conclusion.....	44
Advice to Field of Art Education.....	44
Advice to Art Teachers.....	44
REFERENCES.....	46
APPENDIX A.....	49
Unit Plan.....	49
APPENDIX B.....	58
Figure B1 Tunnel books completed during study.....	58
Figure B2 Interior of St. Cyril and Methodius Catholic Church.....	58
Figure B3 St. Mary’s, Praha, TX.....	59
Figure B4 St. John the Baptist, Ammansville, TX.....	59
Figure B5 St. Cyril and Methodius, Dubina, TX.....	59
Figure B6 St. Mary’s, High Hill, TX.....	59
Figure B7 Original paint revealed during restoration.....	60
Figure B8 Interior of St. Mary’s Praha, TX.....	60
Figure B9 Ceiling of St. Mary’s, Praha, TX.....	61
Figure B10 Decorative painting and Psalm in St. Mary’s, High Hill, TX.....	61
Table B1 Table of Tunnel Book Specifics.....	62
Table B2 Expenses for Research Study.....	63

LIST OF TABLES

Table 3.1	Sample Questions.....	15
Table 3.2	Information from <i>Houston Chronicle</i> and <i>Decorating Texas</i>	16
Table 3.3	Paper Options.....	18
Table 3.4	Media and Themes.....	19

LIST OF FIGURES

Figure 2.1	Conceptual Framework.....	9
Figure 3.1	Original tunnel book.....	16
Figure 3.2	Sample of index cards.....	17
Figure 4.1	Accordion side of first tunnel book.....	21
Figure 4.2	Page from working journal.....	22
Figure 4.3	Mr. Ben Sustr.....	24
Figure 4.4	Cross made by Tom Lee.....	24
Figure 4.5	Detail of ceiling panel from St. John the Baptist Catholic Church.....	25
Figure 4.6	Interior of St. John the Baptist Catholic Church.....	25
Figure 4.7	Interior of St. Mary's of High Hill showing Saints statues on faux marble columns.....	27
Figure 4.8	One of three memorials.....	28
Figure 4.9	Vellum model of tunnel book.....	29
Figure 4.10	Model on grid paper.....	29
Figure 4.11	Hinges on back of frame of Saints book.....	30
Figure 4.12	Single sheet cut and folded for tunnel book.....	30
Figure 4.13	Book based on St. John the Baptist Catholic Church.....	32
Figure 4.14	Perspective drawing.....	32
Figure 4.15	St. Cyril and Methodius tunnel book open flat.....	34
Figure 4.16	St. Cyril and Methodius tunnel book standing.....	34
Figure 4.17	Tunnel book based on Saints statues from St. Mary's Catholic Church of High Hill, TX.....	35

Figure 4.18	Side of tunnel book.....	36
Figure 4.19	Tunnel book with frame removed.....	36
Figure 4.20	Wire easels.....	37
Figure 4.21	Painted images from tunnel book based on interior of St. Cyril and Methodius Church.....	38

Chapter One: Introduction to the Study

Background to the Study

Many artists working in book arts create tunnel books as an art form. Book artist, printmaker, and teacher, Rand Huebsch (2005) describes a tunnel book as “a series of parallel image-bearing panels; except for the solid back panel, they all have cut-out areas. The panels are attached on two sides to accordion-folded strips” (p. 20). The structure, when opened, is a three dimensional scene. Tunnel books, or peep shows, as they were sometimes referred to, have been around since the 18th century. Martin Engelbrecht (1684-1756) of Augsburg, Germany, an engraver and print-seller, is credited with creating a tunnel book around 1730 Figure B1 (see Appendix B. p. 56). The hand colored, etched prints depict men and women dancing in a garden. <http://smithsonianlibraries.si.edu/smithsonianlibraries/>.

The subject of the tunnel book study was a group of churches referred to as the Painted Churches in Schulenburg, TX. The churches were chosen as a subject of study not only because of personal interest, but also a natural follow up to the curriculum document that was created in the Curriculum Development course at Boston University (BU). The document, titled *Built on Faith: Exploring the History of the Church Through Art* introduced middle school students at St. Clare Catholic School to a visual history of the Catholic Church. Sharing the history of the Painted Churches of Texas with middle school students is an intellectual goal (Maxwell, 2013) that will inform students of the history of these Catholic Churches in Texas. The Painted Churches are a subject that will have relevant for students at St. Clare School. Incorporating this subject in an art unit will “promote choice making, originality, elaboration, and the creation of work that has personal meaning and value” (Carroll, 2003, p. 126). Students might consider researching churches in their local area.

Interest in church architecture began in 2006 when teaching an architecture class to 4th and 5th grade Gifted and Talented students in the Clear Creek Independent School District (CCISD). In preparation for the architecture class, PowerPoint presentations were created of the various architectural periods and the significant architectural structures associated with those time periods. While gathering and researching images, the researcher developed a great appreciation for the churches of the Byzantine, Roman, and Gothic eras. This appreciation of churches has blended into the researcher's personal life so much so that whenever visiting a new city, historic churches in that area are researched in preparation for the visit. The inspiration to use church architecture as the subject to be expressed in the tunnel book was realized when the researcher attended Mass at St. Ignatius on the campus of Boston College.

Research Goals

The primary goal of this study was to develop and inform artistic learning. This knowledge can then be shared with students so that they may also expand their artistic learning. Artistic learning was developed through the exploration of materials and construction techniques of the tunnel book. Several different papers, including Lenox paper and Bristol vellum were chosen to construct the tunnel books. In addition, media and adhesives were explored. Artistic learning was defined as visible differences in an artist's work as he or she improves a skill or technique, or it may be something internal such as knowledge and understanding gained about a process or subject (Wolf, 1988).

Research Questions

Through this arts-based research, the following question was answered: Will my experience as a student exploring tunnel books as a creative endeavor inform and expand artistic learning? The above question was answered through the exploration of other questions. Part of

the research explored materials for tunnel book construction. Questions that were addressed included: What materials are appropriate for middle school students at St. Clare School? Is this material affordable for an art school budget? How will these materials be applied in the construction process? Of the approaches studied and applied, which one would be the most effective for introducing tunnel books to the students? What types of adhesives will be used to assemble the books? How can the artistic learning of the researcher be applied to a lesson for middle school students at St. Clare School? The answers to these questions were addressed and documented through journaling and memo taking.

Conceptual Framework

Artistic learning was explored through the creation of tunnel books during this autoethnographic research project. Artistic learning is the process by which students gain knowledge about an art process or concept, through exploration and experimentation. Artistic learning can also describe the experience when learning about a work of art. Eisner (1967) stated:

artistic growth in human beings is not limited to the making of art, but includes an awareness of the qualities of great works of art, an understanding of the criteria that can be used to appraise these works and a respect for and appreciation of the culture out of which the works have emerged (p. 25).

During the research, several materials were explored along with various approaches for assembling a tunnel book. As a self-taught student exploring tunnel books, the researcher hoped to more fully understand the process for making a tunnel book, as well as discovering what materials were best suited for the construction of tunnel books. Carroll (2003) cited (Burton, 1980) when discussing materials:

Ideas come from investigating materials and attending to their sensory qualities.

Building a repertoire of ideas about materials—what they can do, what can be done with them, and how they fit with ideas—facilitates creative and artistic thinking (p.121).

Learning how to manipulate materials and deciding which materials are best suited for middle school students was also part of the research process.

The conceptual framework was categorized by experiences, goals and methods. Previous studio experience in making a tunnel book was the foundation for exploring materials and processes during this research. Personal interest in this book form, as well as interest in church architecture, provided the motivation (Maxwell, 2013). Historical reference material regarding the Painted Churches was collected during a guided tour of the churches on October 27th, 2012. During this tour, the churches were photographed, and interviews with historians were video recorded. A journal documented note taking. Instructors and artists, familiar with tunnel books were also interviewed regarding their experiences with adhesives and papers.

Methodology of the Study

The purpose of this study was to more fully understand artistic learning. In order to experience this, an autoethnographic arts-based study was conducted. As a self-taught student, the researcher experimented with several materials and methods for constructing a tunnel book. The material was also considered for its aesthetic value. In addition, tools were limited to those that will be available to use by middle school students at St. Clare School.

Methods of Data Collection

Several methods of data collection were utilized in the study. The collection of data included:

1. Memos
2. Preliminary sketches of visualizations
3. Journaling of the process
4. Note taking about materials
5. Audio and video recording

Methods of Data Analysis

Data was analyzed to evaluate and determine if and how the researcher's artistic learning was enhanced. Information was documented on how the materials performed in the final products. In order to avoid bias in results, both positive and negative experiences were evaluated and shared in the analysis. In addition, evaluation of how this information can be presented to middle school students at St. Clare was discussed.

The researcher's prior knowledge and the first tunnel book that inspired the research served as a starting point for conducting the research. Previous knowledge of materials, tools, and construction techniques was documented. In addition, the understanding and appreciation of church architecture which inspired the subject of the tunnel books were documented.

Theoretical Framework

Experimenting with materials and techniques teaches problem solving skills. Carroll (2003) cited Eisner (1998) when he stated: "Often, persistence in the face of not really knowing how something will turn out, is required and becoming acquainted with this notion makes the journey of creating really worth the journey" (p. 122). Introducing students to new materials and experimenting with them is one way of enhancing artistic learning. In addition, gaining knowledge regarding an art form also constitutes artistic learning. The choice to use the Painted Churches as the subject of the research was a personal choice. As Roberts (2005) noted, "real art

must have content related to the artist's own interests and experiences" (p. 40). Making art with a personal connection provided a more meaningful experience. Researching these structures provided a deeper understanding of their history and culture. Participating in this process as a student facilitated the researcher in understanding the learning process that a student experiences when he or she is introduced to new materials or techniques.

Significance of the Study

Fully understanding the process of creating a tunnel book and what materials are appropriate for this provided a meaningful experience that will be shared with middle school students. Researching the construction of tunnel books was an appropriate approach for studying artistic learning because there were many possibilities that could be explored. In conducting an autoethnographic study, the researcher gained a better understanding of herself as both artist and student. By fully exploring the tunnel book as an art form, new methods and approaches to using materials were revealed. The tunnel book is an art form completely unknown to the students at St. Clare School. By researching materials and construction options, the researcher hoped to expand artistic learning. In addition, the best approach to sharing this knowledge with students was developed.

Limitations of the Study

Of the many limitations, time constraints had a significant effect. Interruptions such as work and family obligations prevented continuous work on the research. Since this research is being considered with the middle school student in mind, tools were selected based on what would be available and appropriate for students. The Principal at St. Clare School has stated he prefers that students do not use Xacto knives for safety reasons. This potentially limited construction techniques for students, and added additional preparation steps for the instructor.

St. Clare School has a very limited budget. This placed limitations on what materials were considered for the research.

Conclusion

Developing and expanding artistic learning were the goals of this study. This included growth in the art making process, appreciation of an art form (Eisner, 1967), or an improved visualization process. As a self-taught student, the researcher strived to understand the learning process from a student's viewpoint. With this knowledge, further enhancement of students' artistic learning will be achieved. In addition to students' artistic learning, new teaching approaches were achieved.

Definition of Terms

Autoethnographic research – reflexive and reflective analysis of ones own artistic practice.

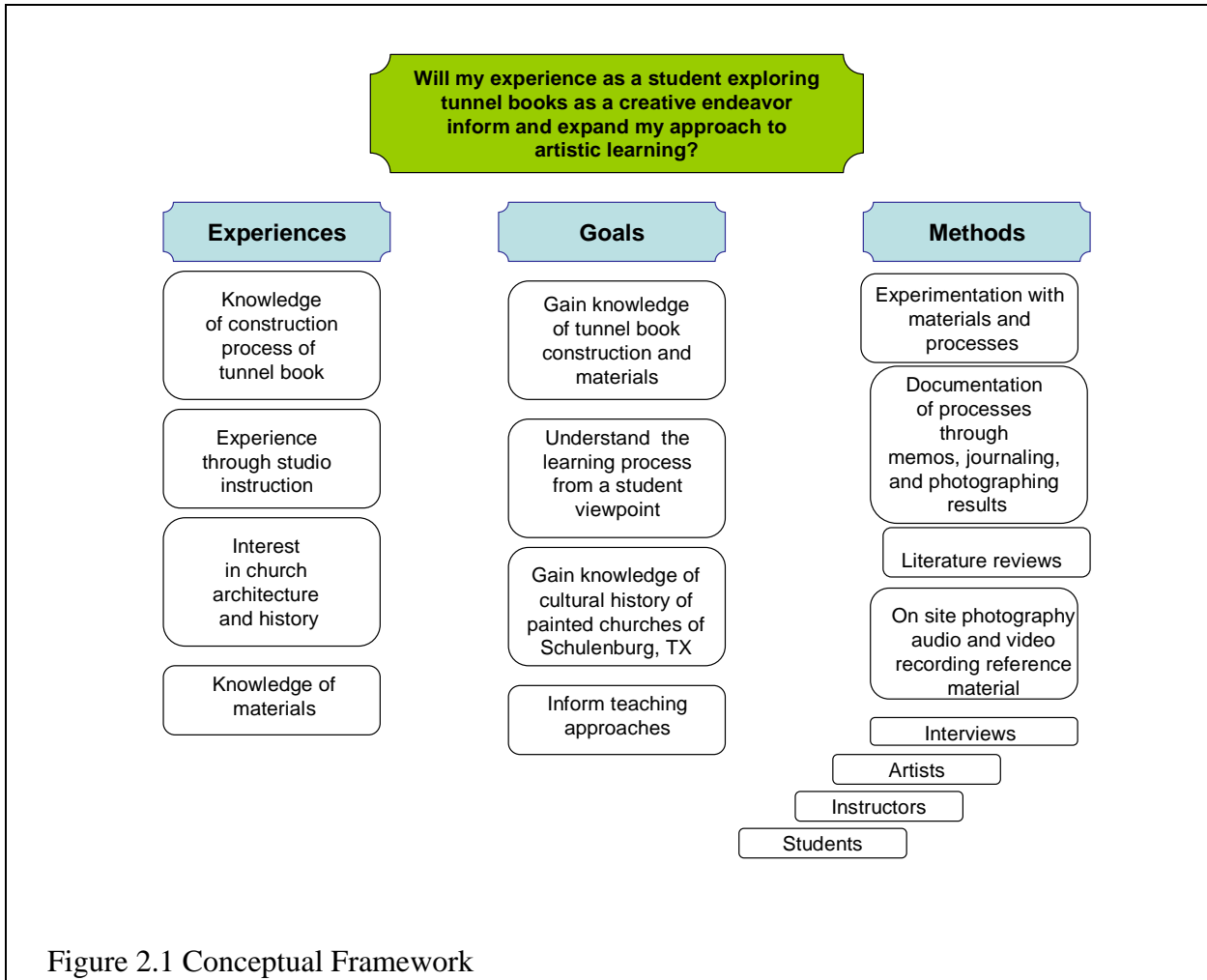
Visualization – the process of forming images in the mind.

Chapter Two: Literature Review

This chapter will discuss literature relevant to artistic learning through the exploration of tunnel books. The literature that supported this study was compiled under four headings: materials, book arts, artistic learning, and the Painted Churches, which all supported the conceptual framework. The researcher discussed how the literature guided tacit understanding and supported the theoretical framework. Using the literature presented, the researcher made decisions that were relevant to conducting the study. For example, the materials section of the literature informed the researcher about which materials were appropriate for the construction of the tunnel book. The question being researched is: Will my experience as a student exploring tunnel books as a creative endeavor inform and expand artistic learning?

Conceptual Framework

Artistic learning was defined in relation to the study. The history of tunnel books and their significance as an art form were shared. In addition, authors shared construction techniques best suited for students as well as appropriate materials and adhesives for the tunnel book. Along with the literature, interviews with book artists and educators provided information that influenced decisions which were made regarding the construction and materials section of the research. The Painted Churches were the subject of the tunnel books. A tour of the churches and interviews with local historians informed the researcher of the historical significance of the churches. Photographs taken during the tour served as visual reference material.



Literature Review

Artistic Learning

Through this study, artistic learning was researched in order to further develop skills that will be carried throughout other media. How can artistic learning be defined? Wolf (1988) defined artistic learning as "shifts in the way a student controls line, shape, and color; the novelty of imagery; or the technical understanding of the medium" (p. 146). Wolf also noted that artistic learning is not limited to "visible changes" but also includes "encounters with works of art"... "an increased alertness to the works and minds of others" and the ability to focus on a series of work. (p. 146). During this autoethnographic study, the researcher documented present knowledge of

tunnel books as well as ways that understanding and thinking changed in the process. Artistic learning was measured through information gained regarding materials, assembly techniques, and visualization processes during the study.

Artistic learning in the form of art-making also addressed creativity and meaning during art-making process. Expanding skills and techniques in art production can demonstrate artistic growth, but how those skills and techniques are expressed is also important. Freedman (2010) stated: "Creativity depends on previous knowledge, and therefore, depends to some extent on reproduction. As a learning process, creativity builds on old ideas, images and objects in the production of the new" (p. 13). Using the first tunnel book created, the research goal was to experiment with construction techniques, papers, adhesives, and mediums while introducing meaningful subjects.

Subject matter in the creation of tunnel books provided a memorable experience. In addition to developing skills and expressing creativity, creating art with meaning can also expand artistic learning. Students who are instructed to all create the same cookie cutter art are limited in their personal choices. When students are given an opportunity to make choices about subject matter and materials, their art becomes more personal and genuine. Teresa Roberts (2005) encourages her students to make "real art" which she defines as "any work of art that is the result of a sensitive individual's experience of and response to his or her life expressed through a particular medium" (p. 40). The Painted Churches of Schulenburg, TX were a personal subject for the researcher that provided a meaningful approach to artistic learning.

The Painted Churches

Exploring the Painted Churches as the subject of artistic learning allowed the researcher to uncover the historic meaning of the churches. In *Decorating Texas: Decorative Painting in*

the Lone Star State from the 1850's to the 1950's, Buie Harwood (1993) shared the cultural influences that inspired the painting of the churches. The interior designs include "stenciling, infill painting, freehand painting, graining, and marbling" (p. 4). Harwood also informed readers about the artists who created the art images. Sharing this information with students at St. Clare School will enlighten their knowledge of these Catholic Churches that are native to Texas thus integrating the academic subject of social studies to art-making. This will provide a starting point and example for students as they pursue ideas for their own personal tunnel books.

Tunnel Books as an Art Form

When discussing tunnel books, it was important to establish their significance as an art form and how it could be used in art education. As discussed in Chapter One, tunnel books have been in existence since the 18th century. Tunnel books are part of a larger category of art known as "artists' books" (Burkhart, 2006, p. 248). Burkhart defined artists books as "a work of art on its own, conceived specifically for the book form and often published by the artists him/herself" and are "books in which the book form is intrinsic to the work" (p. 249). Burkhart also cited Phillpot (1998) who stated: "It is an artist's book when it functions as a book, when it provides a reading or viewing experience sequenced into a finite space of text and or images" (p. 249). The three dimensional form of the tunnel book allows the viewer to look through the layers to see the full image that is created. This layering of the images creates a "telescopic effect" (LaPlantz, 1995, p. 108). As Hinshaw (1999) noted "tunnel books can be constructed in any size or length" (p. 34). The suggestions and recommendations that Hinshaw offers for the size and materials used for the books helped inform the researcher with experiments.

Materials and Construction Techniques for Tunnel Books

Exploring possible materials to be used in the construction of tunnel books could be expensive. Since the research was being conducted with potential applications for the middle school student at St. Clare School, budget limitations narrowed the choices used in this research. As with many schools, St. Clare School has financial constraints for school supplies. St. Clare has what Zach Rozelle (1994) described as "minimal conditions" in regards to the art program (p. 45). Minimal conditions include "too little time with students, too little or no money for consumable supplies" and no sink (p. 45). All teachers at St. Clare School have no budget; therefore all purchases must be approved. While no art supply has ever been denied, it takes careful, advance planning to know what will be needed, getting approval, and ordering supplies in preparation for a lesson.

Paper was the main component in the construction of the tunnel book. Watercolor paper, card stock, heavy weight drawing paper, and Bristol vellum were considered as paper options. In *Tunnel Book: A Theatrical Structure*, Rand Huebsch (2005) offered suggestions for materials and assembly of the tunnel book. Huebsch recommended a combination of cardstock for inner panels and heavier paper or board for the front and back panels to give the structure strength. The construction of the tunnel book was not limited to paper only. The first tunnel book the researcher designed was constructed from Lenox paper and a recycled encyclopedia. The researcher explored the possibilities of recycled and non-traditional art materials in the construction process. As Szekely (1994) stated: "There is no such thing as an ordinary art tool, or an ordinary art surface" (p. 17). In addition to the visible materials of the tunnel book, considerations were made for adhesive choices. Brewer (2012) shared factors to consider when making choices for adhesives. She stated that "characteristics such as low-moisture, low-solvent,

shelf life, and affordability often factor in as well, depending on the needed application" (p. 59). While budget constraints may limit the materials available, students can be encouraged to use personal supplies to express their creativity in their tunnel books. It is through the investigation of materials and their applications that artistic learning can be advanced.

Conclusion

Tacit Understanding

The literature presented in this chapter assisted in validating the researcher's tacit understanding. Artistic learning through the exploration of tunnel books was evaluated using the researcher's previous understanding and knowledge of tunnel books. Through experimentation of materials and construction techniques along with mediums, the researcher anticipated expanding artistic learning. Personal decisions were made regarding the subject of the tunnel books which allowed for a more meaningful experience for the researcher. Through creative exploration of visual ideas and materials, a meaningful art experience was the intended outcome of this research.

Theoretical Understanding

The literature reviewed in this chapter provided supporting information relevant to the study. The researcher hoped to expand and inform artistic learning through the creative exploration of tunnel books. Research suggested that experimenting with various materials and techniques was a valid approach to increasing artistic growth. In addition, creating art using subjects or content that is personal to the artist also enhances artistic learning.

Chapter Three: Methodology

Design of the Study

This chapter will discuss the methodology to be used in this autoethnographic research study. The term autoethnographic will be defined and methods of data collection and data analysis will be described. In addition, a description of this arts-informed research study will be presented.

An autoethnographic study is one in which the researcher and artist are one in the same. Renata Ferdinand (2009) cited Ellis and Bochner (2000) who described it thoroughly when stating:

Lived experiences lie at the heart of auto-ethnography. Auto-ethnographies delve into the personal life of the researcher, thereby, summoning rich and contextualized information about various subjects. The researcher, then, is able to draw connections from his or her personal life to the lives of others or extend understanding about a particular culture or society (p. 5).

The researcher in this study used present knowledge about tunnel books as a base point for measuring artistic learning. Using the Painted Churches of Schulenburg, TX as a subject of the tunnel books, the researcher experimented with several methods of constructing the books along with using several different materials. Sullivan (2010) cited Knowles & Cole (2008) who noted, “arts-informed research, which ‘provides a context for promoting innovative research that infuses processes and forms of the arts into scholarly work for the purposes of advancing knowledge and bridging the connections between academy and community’” (p. 58). The goal of this research was to expand the researcher’s artistic learning. If the researcher was successful,

the knowledge gained could then be shared with students at St. Clare School through meaningful art lessons.

Research Methods

As mentioned earlier, the researcher has created one tunnel book. This book was used to refer to when expanding ideas and processes (see Figure 3.1). Many articles were reviewed to provide the researcher with information on construction techniques for tunnel books. Interviews were conducted through email communication with Katherine Ruffin, Book Arts instructor for Boston University Summer Studios, Lee Steiner, a book artist, and member of the Houston Book Arts Guild, and Rand Huebsch, a printmaker, book artist, and teacher. The interview questions guided the researcher regarding materials, adhesives, and approaches. Sample questions are shown below. (See Table 3.1) These varied slightly depending on the recipient's book arts background.

Table 3.1. Sample Questions

Are there other adhesives you have used with successful results?
If so can you tell me about them?
Is the Lenox paper your preference for paper when constructing tunnel books?
If you have used other papers can you share the names of the papers and the weights used?
Can you share some combinations of mediums and papers that you have used in the construction of tunnel books?



Figure 3.1. Original tunnel book

The subjects of the books were the Painted Churches of Schulenburg, TX. A guided tour of the churches took place on October 27th, 2012 so that the researcher could gather historical information regarding the churches. Prior to the tour, research was done using literature, and the information is contained in the chart below (see Table 3.2).

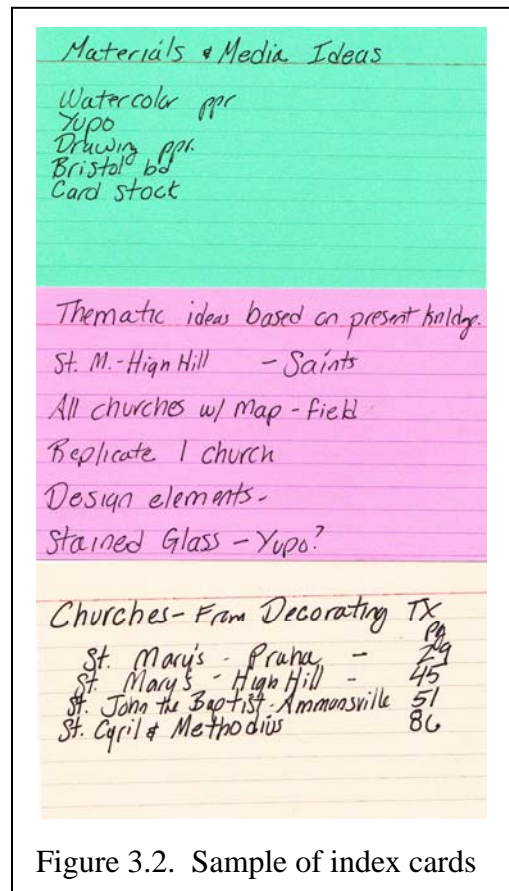
Table 3.2. Information from *Houston Chronicle* and *Decorating Texas*

Church Name	Date Built	Location	Architectural Style	Artist(s)	Interior Details	Exterior	Other
St. Mary's Catholic Church	1895	Praha, TX	Gothic Revival	Gottfried Flury later Fr. Louis P. Netardua	Stenciling, infill painting, freehand painting, ceiling - wood planks, checkerboard floor	stone, wood	Praha - Czech for Prague
St. Mary's Catholic Church	1905-06	High Hill	Gothic Revival	Ferdinand Stockert, Herman Kern	Stenciling, infill painting, freehand painting, marbling, filled with statues of Saints	Red brick	Stencils were cut by hand. Pattern designs from books in Stockett's library.
St. John the Baptist Church	1919	Ammansville	Gothic Revival	Fred Donecker	Stenciling, infill painting, marbling Pink, green and white colors with ornate patterns, scrolls, interlocking circles	wood	"fresco artist, church decorating a specialty" description in <i>Southern Messenger</i>
St. Cyril and Methodius	1912	Dubina	Gothic Revival	Ed Janecka and local townspeople credited with restoration.	Hand painted frescoes of angels, stenciling	wood	1952 ceiling painted over to modernize the church In 1983 former altar boy and present County Judge Ed Janecka organized restoration efforts.

Video recording and note taking were used to document the information provided by the tour guide. Photographs were taken to provide the researcher with visual references that were referred to before and during the art-making process. Upon returning from the tour, information about the churches was organized categorically for comparison and analysis. (Maxwell, 2013)

The photographs were organized into categories of subjects that the researcher was thinking about for the tunnel books, for example, Saints or windows.

Notes from the interviews with book artists, and instructors were organized to facilitate decision making on adhesives and construction techniques. In addition, memos and sketching were done to visualize the researcher's ideas. Colored index cards (see Figure 3.2) were used to code categories of information. These index cards coordinated with page tabs and highlighters to code information in journals, articles and sketchbooks. Reflective note



taking was done to document new techniques, and information learned during art-making. This reflective journaling was critical since the only other visible results were the tunnel books. Duarte (2007) cited Johns (2004) definition of reflection as “being mindful of self, either within or after experience” (p. 2). Models of the tunnel books were made based on the sketches and notes prior to the creation of the actual books. When all the artistic details of the tunnel books had been established, final book designs were created. Photographs were taken during this process to document the progress.

Data Collection

Data was collected using several methods. Prior to the art-making process, the researcher photographed and documented information about the first tunnel book to establish current knowledge of tunnel book construction and materials. The researcher created a chart (see Table

3.3) that lists the materials that were considered for the construction of the tunnel books. The cost reflected for each paper was the cost to make one book. This list was subject to change based on interview outcomes. If for example, one of the interviewees strongly discouraged a particular type of paper, the researcher would have reconsidered that choice. The cost of paper was a necessary factor due to the budget constraints at St. Clare School. In addition to paper, book artists and instructors were also interviewed regarding adhesives. The researcher has used Polyvinyl Acetate (PVA) archival glue and YES Paste. The PVA glue is water soluble, and can be applied easily. The YES Paste is thick and difficult to spread. The YES Paste can be thinned with water; however, the researcher had not experimented with this yet and would be inquiring of this in interviews.

Table 3.3. Paper Options

Paper	Size	Weight	Cost per sheet
Strathmore Bristol Vellum	14" x 17"	100 lb	\$1.50
Canson Drawing Paper	19.5" x 25.5"	138 lb	\$1.60
Strathmore Watercolor Cold Press	9" x 12"	140 lb	School supplied
Canson Colorline Black	19 x 25		\$3.60
Yupo Translucent Watercolor	9" x 12"	104 lb	\$0.85

Visualization ideas were documented in a sketchbook with notes and dated. Throughout this preliminary process, ideas were developed from quick sketches into color designs until models were ready to be constructed. The models allowed the researcher to work out any construction issues before proceeding to the final tunnel book designs. As with the materials, ideas regarding media were considered. The chart below (see Table 3.4) contains possible media and themes for the tunnel books based on present knowledge. These were subject to change based on interviews and information collected during the tour of the churches. The media listed below were chosen with middle school students in mind. The students have access to all of the

media listed in the chart. The researcher has chosen the Painted Churches as a subject because of an interest in church architecture. A possible lesson plan for students in middle school could be to choose a church or place of worship that has personal meaning to them and develop a tunnel book based on that place.

Table 3.4. Media and Themes

Primary Media for each Book	Book Themes
Watercolor	Stained Glass
Printmaking	Churches as group
Altered Photocopies	Replica
Colored Pencils	Design elements
Ebony Pencils	Saints

Data Analysis

The data analysis took place during and after the research was completed. Analysis during the research guided the researcher in design decisions. As Sullivan (2010) noted:

The design process is generally seen to be a problem-solving strategy that moves through a series of phases as a need is identified, constraints are considered, concepts and ideas are proposed, a prototype is designed and tested, and modifications are made. (p. 201)

Materials, media, and adhesives were tested for compatibility and noted in a journal. This was to be done before construction on the models began. The notes, journal entries, memos and photographs that were documented during the process were analyzed. Reflecting on the learning processes was also recorded in a journal to determine if artistic learning took place. The researcher shared the completed tunnel books with art colleagues for feedback and analysis.

Conclusion

This chapter has discussed the design of the study and the methods to be used for collecting and analyzing data. A definition of autoethnographic research was provided.

Candidate materials, adhesives and themes for tunnel books were shared. In addition, potential ideas for presenting this information in a lesson to middle school students were also included.

The next chapter will present the outcomes of the study.

Chapter Four: Results of the Study

This chapter discusses the findings that were discovered during the research study that explored artistic learning through the creation of tunnel books themed around historical structures. Historical information was gathered while touring the Painted Churches of Schulenburg, TX. This information was then used to create a series of tunnel books based on the churches. In order to understand the findings, background information regarding a previously constructed tunnel book created during Summer Studios at Boston University was established.

The first tunnel book was 7" x 11" and constructed of Lenox paper, mulberry paper, Canson paper and color plates from an antique encyclopedia. The book was constructed using

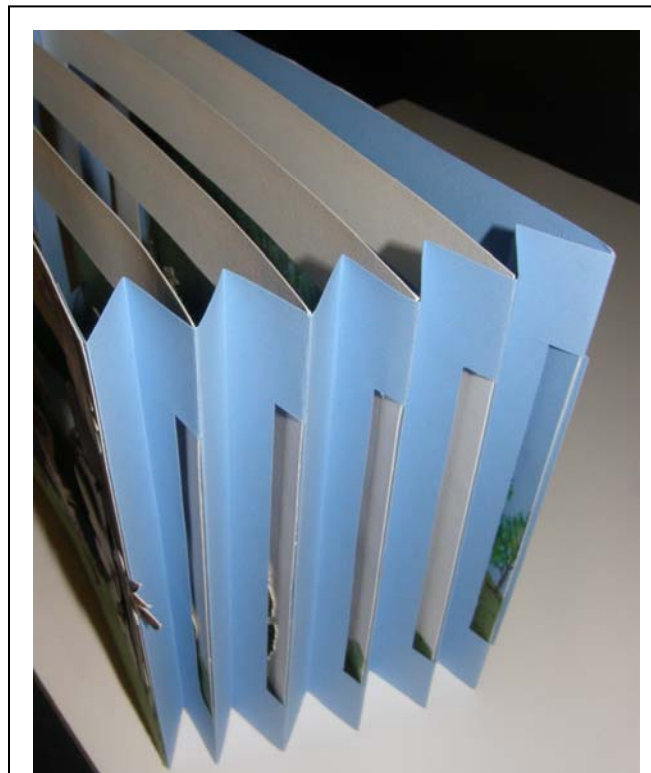


Figure 4.1. Accordion side of first tunnel book

double-sided tape, Polyvinyl Acetate (PVA) and a glue stick. Media included, oil pastels, colored pencils, rubber stamps, black marker, and waxed linen. The tunnel book was assembled using accordion folded paper. Using an Xacto knife, tabs were cut in the accordion folds to attach the tunnel book frames to the accordion paper (see Figure 4.1). The frames for the book were cut from the Lenox paper. The color images were glued to Lenox paper using PVA adhesive. The images were then cut out and

adhered to the frames of the book. A study on perspective was done to capture the proper position of the fence that descended into the book.

Prior knowledge about the Painted Churches was obtained from books, newspaper articles and websites.

Significance of the Study

The findings are discussed with relevance to the goals and methods established in the conceptual framework in Chapter 1. The evidence that was gathered was triangulated using photos to visually document the art-making process, information gathered from interviews, literature from instructors and artists, the use of a working journal to document in-process results, and finally the completed tunnel books (see Figure 4.2). Information has been categorized using the following areas: historical information about the town of Schulenburg and the Painted Churches, adhesives, media and materials, construction techniques and styles of tunnel books. The findings indicated an expanse of knowledge with regards to the phenomenon of artistic learning through creating tunnel books. These results were supported through literature discussing construction techniques and prior historical knowledge regarding the

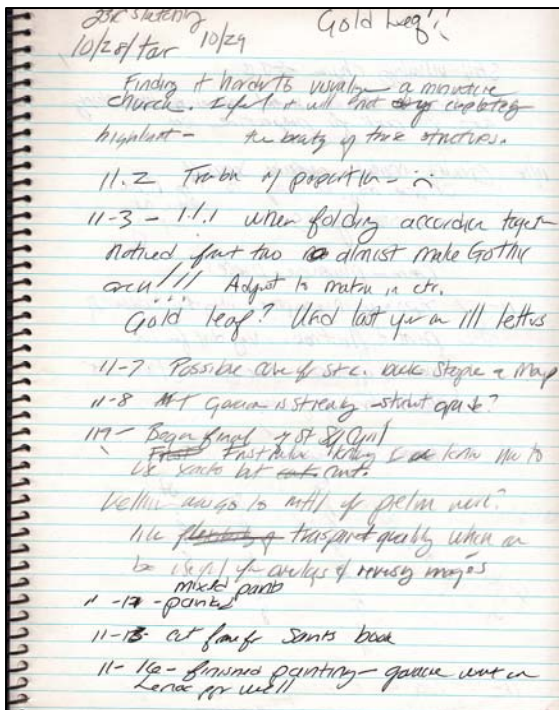


Figure 4.2. Page from working journal

Painted Churches. Through this study the researcher has learned new approaches to teaching as well as understanding the learning process from the viewpoint of a student. In addition, significant historical information was gained during the tour of the Painted Churches, which are a valuable part of Texas history. Additionally, the churches represent a historical piece of the Catholic faith in Texas. This information was used to design a unit on

tunnel books that will be shared with middle school students at St. Clare of Assisi Catholic School.

Bias and Validity

The data collected consisted of two parts. The first section involved gathering information that guided decisions about the subjects expressed in the tunnel books. The second half of the data collection was the documentation of the art-making process. To support the goals of the study, and limit personal biases, the researcher focused on materials and techniques that would be appropriate for middle school students.

The recording of the process and materials for creating the tunnel books provided the results of the study that would be analyzed. Carroll (2003) cited Wolf & Pistone (1995) when they stated: “keeping a complete record of a creative process for inception and hunch through experiment, research and investigation, trial and error, failure and success, to completion, makes visible the creative process” (p. 123). All results of the art-making, successful and unsuccessful, were recorded to insure the validity of the process.

Analysis of the Data

The first section of the data analysis contains the historical data collected on the tour of the Painted Churches. Following that, categories were arranged to describe materials and construction techniques. Finally, opinions about the tunnel books are shared. The books were viewed by individuals who attended the tour along with a colleague of the researcher who shared artistic comments.

Schulenburg and the Painted Churches

Cultural history of the town of Schulenburg and the Painted Churches was gained through a tour arranged through the Schulenburg Chamber of Commerce that took place on



Figure 4.3. Mr. Ben Sustr



Figure 4.4. Cross made by Tom Lee

October 27th, 2012. The tour was conducted by Ben Sustr, an 84 year old resident of Schulenburg who provided extensive knowledge of the Churches, along with information about the population of Schulenburg. The tour began in the Schulenburg Chamber of Commerce. Schulenburg was established in 1873 by Louis Schulenburg. Louis Schulenburg purchased 480 acres of land and sold it cheaply to the railroad so that they would come through that area (B. Sustr, personal Communication, October 27th, 2012).

There were four churches included in the tour. St. Cyril and Methodius, located in the town of Dubina was the first church built in the area. It was originally built in 1876 but destroyed by a hurricane in 1909. It was rebuilt in 1912. The cross on the top of the church was made by Tom Lee, a renowned blacksmith (See figure 4.4). Mr. Lee was a slave who came to the area with his master when he was 15 years old. He was later able to purchase forty acres of land for three payments of \$166 each. Lee built an African American private school where



Figure 4.5. Detail of a ceiling panel from St. John the Baptist Catholic Church



Figure 4.6. Interior of St. John the Baptist Catholic Church.

students were taught by nuns. The school later became public but closed in 1959 when they

could no longer find nuns to teach the students. Mr. Lee lived to be 107 yrs old. The cross he made in 1877 is still on top of the church today.

St. John the Baptist Catholic Church in Ammannsville was the second church on the tour. Andrew Ammann came from Chicago and purchased 300 acres in the 1800s. The church was built in 1860 and also destroyed by a hurricane in 1909. It was rebuilt and eight years later destroyed by fire. Parishioners were seen carrying statues from the fire. Two of the statues, Lady of Grace and Sacred Heart of Jesus, were saved from fire. It was finally rebuilt again and completed in 1919. Mr. Sustr shared that statues and images of female Saints were on the left side of the church and males were on the right. This is also how parishioners were seated in the church. The pews on the right side of the church still have the hat hooks for men. The church is decorated with stenciling, painting, and faux finishes. The ceiling design was created on panels that were then nailed in place (see Figures 4.5 and 4.6). The white wood strips conceal the seams between the panels. Electricity was installed in the church in 1940. Proverbs 8 is written in Latin above the Altar. It reads: DELICIAE MEAE ESSE CUM FILIIS HOMINUM which translates to: I'll find delight in the sons of man.

St. Mary's of High Hill is one of two churches with the same name. St. Mary's is a red brick structure built between 1905 and 1906. This is the third church built on the land deeded to the church in 1868. The stained glass windows in the present church were moved from the second church, a wooden structure that was built in 1876. The main aisle is lined with statues of Saints of the Catholic Church (see Figure 4.7). The church is also filled with faux finishes, stenciling, and freehand painting. The ceiling design was painted on canvas panels and then glued to the ceiling surface. In some areas, the impressions of the wood can be seen through the canvas. The ambo has images of John, Luke, Mark, and Matthew, the four Gospels from the

Bible. In 2011 the church began a major conservation and restoration project which restored the original stenciling and painting by removing the overpaint as well as conserving the ceiling artwork. St. Mary's of High Hill is known as the Queen of the Painted Churches

(<http://www.stmary-highhill.com/Conservation.html>).

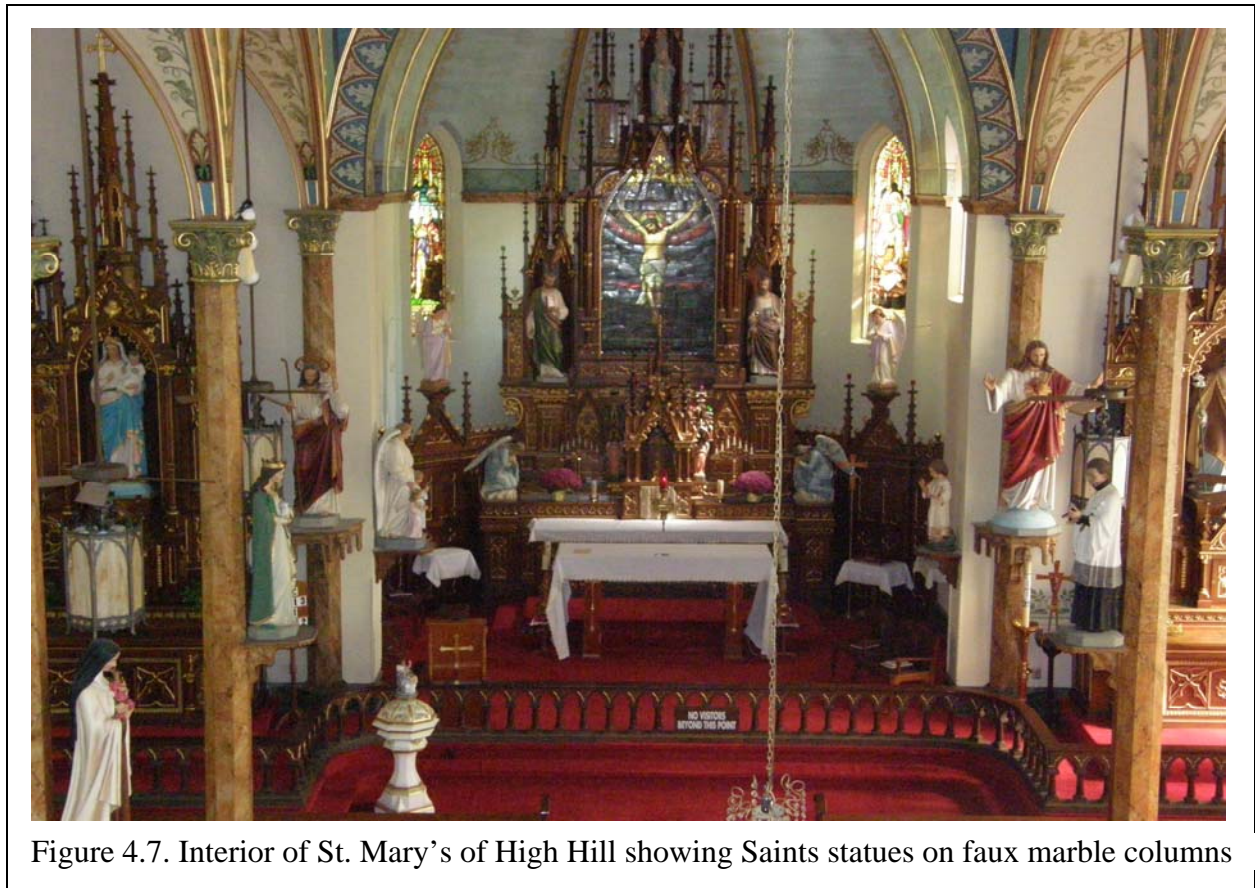


Figure 4.7. Interior of St. Mary's of High Hill showing Saints statues on faux marble columns

The final church on the tour is also named St. Mary's. It is located in Praha, TX. The cornerstone for the church was laid in 1892 and the church was completed in 1895. The stones for the church were brought from Muldoon, which is approximately 15 miles away. The interior of St. Mary's also contains stenciling and faux finishes. The ceiling was painted to represent the Garden of Eden. There are three memorials on the property honoring nine men lost in WWII (see Figure 4.8). Mr. Sustr stated that a keg of beer was offered to anyone who could hang the

cross on the top of the steeple of the church. This information has been confirmed several times and one source stated that “after he bravely affixed the cross to the top of the steeple the man proceeded to do a handstand on top of the cross”

(www.klru.org/paintedchurches/praha.html). The church has a picnic every year on August 15th to celebrate the Feast of the Assumption.

Adhesives

This section will address which adhesives were used and how they were applied. Prior knowledge about adhesives consisted of double-sided tape, glue sticks, PVA adhesive, and YES Paste. An interview with Katherine Ruffin, a professor at Wellesley College and Boston University provided information regarding adhesives. Ruffin shared that she had used YES paste with successful results. She recommended using an old credit card to spread it very, very thin on a piece of Plexiglas. After it had been spread thin, it could then be applied to the paper using the credit card. Ruffin also recommended several other options including wheat paste, dry mount adhesive, and methyl cellulose. Wheat paste needs to be mixed, has to be refrigerated, and has a short shelf life. Methyl cellulose is a dry mixture that can be used alone or added to PVA to slow down the drying time of PVA. Dry mount adhesive comes in sheets that are cut to size and then heat activated (personal communication). Of the adhesives and applications information obtained from the interview with Katherine Ruffin, research was conducted using the methyl cellulose and PVA combination and the YES paste applied per Ruffin’s instructions. In addition, glue sticks and double-sided

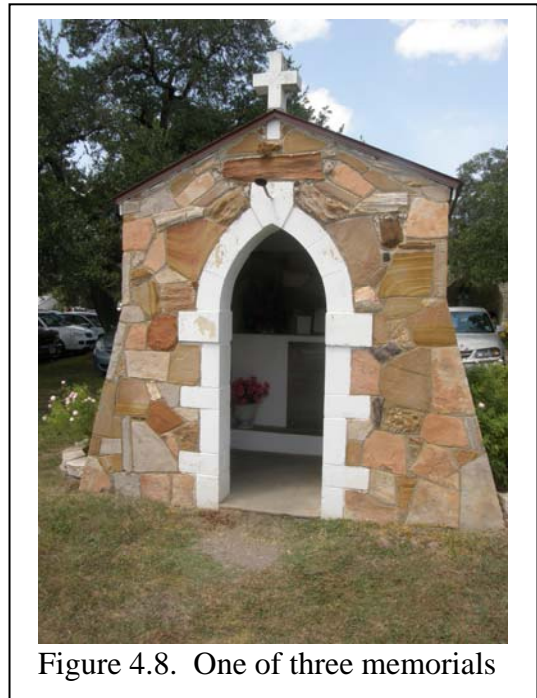


Figure 4.8. One of three memorials

tape were also used in construction processes of two of the books. These were chosen based on cost as well as their appropriateness for middle school students. The students had previously used YES paste when making sketchbooks. The paste was thick and messy. If the new application for the YES paste was successful, this would be important to share with students who had not had a positive experience with the adhesive the first time it was used. Double-sided tape was used in the construction of the sides of one of the tunnel books. On a second book, a glue stick was used in the same construction process. The double-sided tape was easy to apply and gave a strong adhesion. The glue stick was used to apply the hinges of the second tunnel book.

Construction Techniques

Four tunnel books were created during the study as shown in Figure B2 (see Appendix B, p. 56). Each tunnel book acquired its subject matter from one of the four churches toured in Schulenburg. Before beginning construction on the final books, models were made of all the books. The researcher repeatedly returned to grid paper and vellum as materials for drafting the preliminary models (see Figures 4.9 and 4.10). The transparent appearance of the vellum was an advantage when repeating or mirroring images as in the tunnel book representing St. Cyril and Methodius Church. The grid paper was helpful in visualizing the frame size of the books along



Figure 4.9. Vellum model of tunnel book



Figure 4.10. Model on grid paper

with cutting the frames.

A construction technique that was of interest was one used by printmaker, book artist, and teacher Rand Huebsch. During an email interview, Huebsch provided additional information about his construction process. He referred to an article titled *Accordion and Tunnel Books* in the *Journal of Guild of Book Workers* that went into detail about the process and provided images of a tunnel book being constructed. This article explained the process for making the sides of a tunnel book and adding hinges to the accordion folds (see Figure 4.11). This construction process was of great interest since middle school students at St. Clare would not be allowed to use Xacto knives. Another advantage to using this process is that more of the sides of the panels are visible from the exterior of the book. This technique was used on two books. The first measured 8" x 10" and the second was 5" x 7". The accordion strips were 2" in height and the hinges were 1 7/8". The hinge needed to be smaller so that it would not be visible behind the accordion.

Two additional construction techniques were used to create the final two books. One approach was to create a book that would be similar to the original tunnel book from the 1800s. For this book frames were made using Strathmore 100 lb Bristol vellum. Photocopied images were adhered to separate pieces of Bristol vellum and then cut out and glued to the frames. A

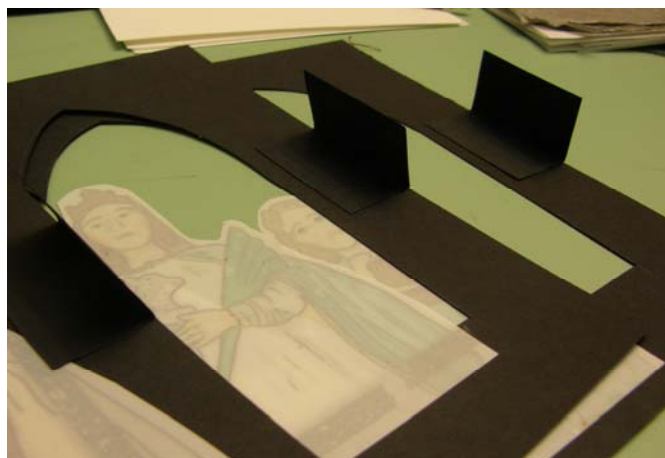


Figure 4.11. Hinges on back of frame of Saints book

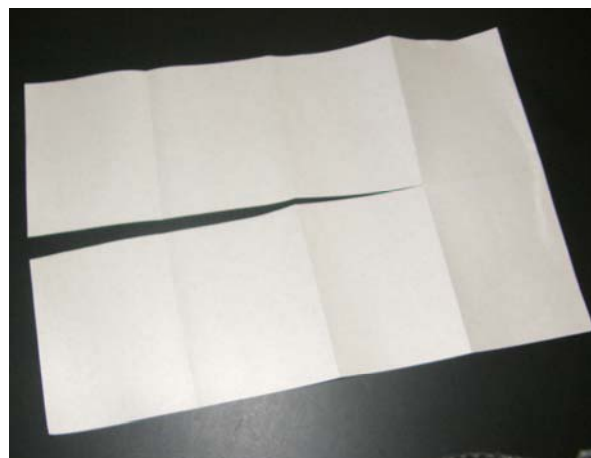


Figure 4.12. Single sheet cut and folded for tunnel book

piece of ½” thick foam core was used to simulate the wooden tray the frames would sit in. A pizza cutter was used to cut grooves ¾ “ apart in which the panels would sit.

The third technique that was used to create a tunnel book was an unplanned approach that was found online during an unrelated search. The website *That Artist Woman* (2012) provided instructions for a book that is part accordion book, part tunnel book. The book was constructed from a single sheet of paper that was cut and folded several times to arrive at the final shape (see Figure 4.12). This book was created from Lenox paper that was painted with gouache and color photocopies. PVA glue was also used during the construction of this book. This construction technique was very easy to assemble. After folding and unfolding the book many times, the decision was made to experiment with adding a front and back cover to protect the book. Decorative paper was added to a piece of recycled cardboard that was cut ¼ “ larger than the height and width of the tunnel book to create the covers. A ribbon was glued into the construction to tie the book together when not in use. Prior knowledge about making covers for books was used to glue the decorative paper to the boards before assembling them with the tunnel book.

Media and materials

In addition to the Lenox paper and Bristol vellum, several other types of papers were used to make the tunnel books. One of the books was made using black Canson Colorline paper combined with Yupo watercolor paper. Yupo paper has the appearance of thick vellum and was very translucent. The theme for this book was Saints and the researcher had visualized a stained glass effect using the Yupo paper with liquid watercolor paints. The frame of the book was cut from the Canson paper. Experimentation in a shaped frame was done before deciding on three equal sized gothic arches framing the top of the tunnel book. An initial cut was made with an

Xacto knife and then the remainder was cut away with scissors. This approach was done to ensure students would be able to cut away the interior with scissors. The images of the Saints were first sketched on grid paper and then transferred to the Yupo paper (see Figure 4.10). The liquid watercolor paint applied to the Yupo paper provided a transparent effect that had the appearance of stained glass. When the paint was dry, a black Micron pen, and gold paint pen were used to enhance the design. The figures were then arranged on the frames in the positions determined in the model book using double-sided tape. The images of the saints were created by referencing the statues in St. Mary's of High Hill. Psalm 42:4, which also is present in the Church's interior, was added to the first frame of the tunnel book.

The third book that was created as a model of St. John the Baptist Church was made on Canson 138 lb drawing paper (see Figure 4.13). The researcher began by creating a perspective drawing of the interior of the church (see Figure 4.14). A new approach to creating the frames of



Figure 4.13. Book based on St. John the Baptist Catholic Church

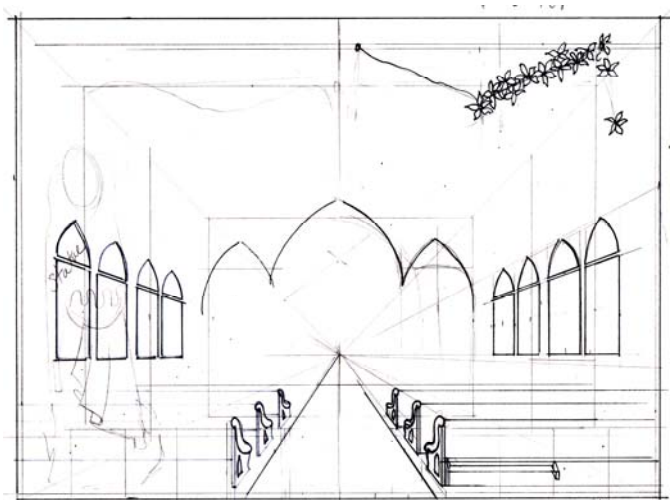


Figure 4.14. Perspective drawing

the tunnel book was used in this book. Huebsch (2009) described transferring the entire design to each frame then, using an Xacto knife or scissors, cutting away the unwanted interior area. The design was colored using Derwent colored pencils and watercolor colored pencils in addition to a gold gel pen to highlight the interior. After the frames were colored the interior was cut away following the above process.

The idea for the final tunnel book was to try to recreate the way the first tunnel book created in the 1800's. This would involve panels that would fit into a frame and could be moved around. The frames were made on Strathmore 100 lb Bristol vellum. Color photocopies of elements within St. Mary's of Praha were glued to pieces of Bristol board and then collaged to the frames. Additional elements were drawn on the frame using colored pencils. The base of the tunnel book was made from ½" thick foam core. Grooves that measured the length of the frame plus one inch extra were cut ¾ of an inch apart from each other. In place of an Xacto knife, a pizza cutter cut through the foam core with ease.

Results

The art-making process yielded much new information for the researcher. Overall, new applications for adhesives, construction techniques and media presented positive findings that have enhanced the researcher's artistic understanding. The results are described in this section.

After touring the Painted Churches and learning the history of each one, the researcher found that each of the churches had significant features that were specific to each structure. This information was reviewed and decisions were made regarding what to represent in each tunnel book. The following paragraphs describe the themes of each of the tunnel books and the outcomes of each.

St. Cyril and Methodius was the subject of the first tunnel book (see Figures 4.15 and 4.16). Assembly on this book was very simple and easy to follow. While middle school students are the target grade level for this unit, this construction technique could possibly be implemented

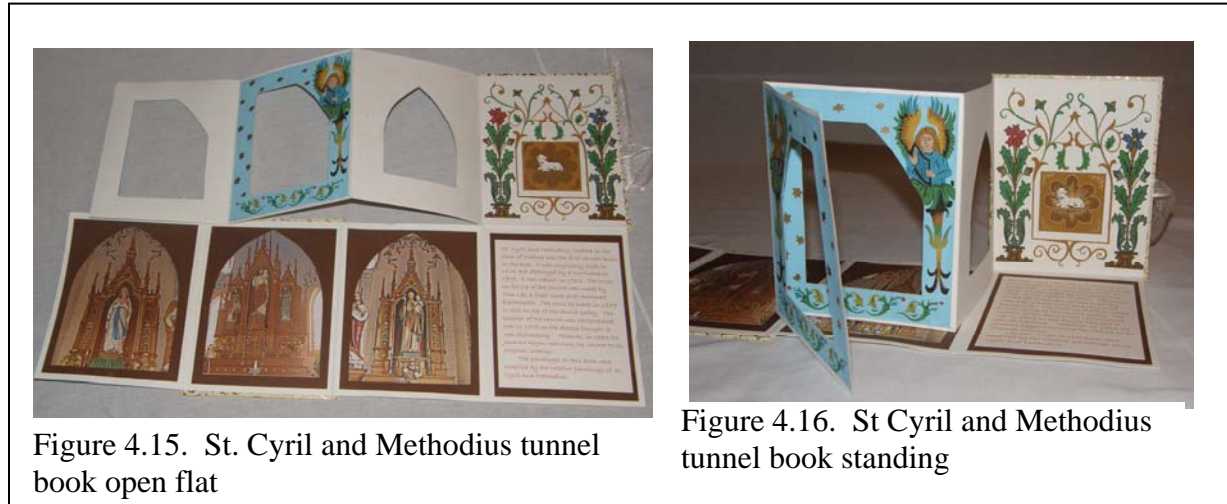


Figure 4.15. St. Cyril and Methodius tunnel book open flat

Figure 4.16. St Cyril and Methodius tunnel book standing

in an upper elementary art lesson. This decision was based on the knowledge that the book was constructed from a single sheet of paper. The cutout sections of the tunnel portion of the book were made to reflect the architecture of the church. Gothic arches were visible in all four of the churches. The Lenox paper which this book was constructed from was painted with gouache. The gouache was found to be an appropriate media for middle school students. The idea that the paint could be mixed in small cups, left to dry, and brought back with water had great appeal for use in a classroom where there is limited time for art-making. The design elements painted in the book were the artist's interpretation of what was viewed and photographed inside the church. Also included were enhanced, color photocopies of the altar area.

St. Mary's of High Hill was the subject of second tunnel book. The focus of this book was to highlight the statues of the Saints that were displayed in the church. The researcher chose to arrange the painted images similar to how they are arranged in the church. Female images were placed on the left and the male Saints on the right (see Figure 4.17). This book was the

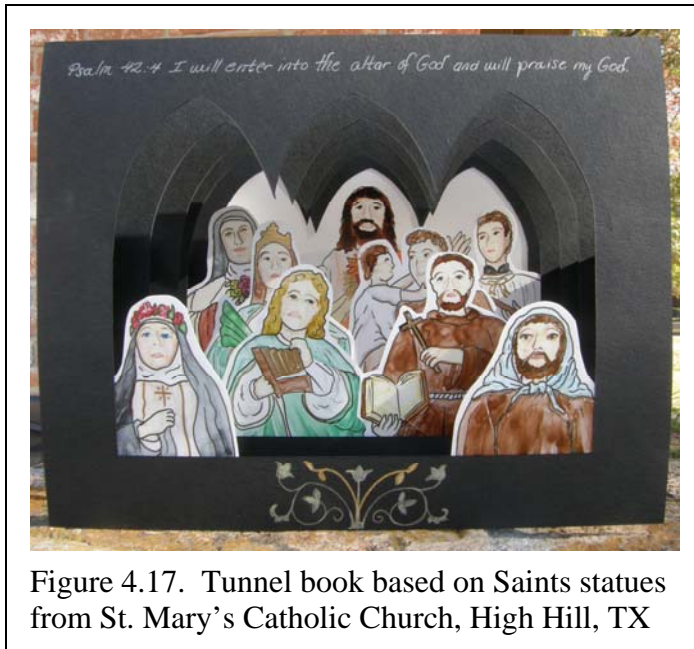


Figure 4.17. Tunnel book based on Saints statues from St. Mary's Catholic Church, High Hill, TX

largest of the two tunnel books using the accordion hinge construction process. In comparing it to the smaller one, it appeared to be somewhat unstable. Experimenting with a taller accordion and hinge arrangement might increase stability of the larger book. The instructions for assembling the books were easy to understand and

this process would work well for middle school students. Using this approach also allowed for more visibility of the insides of the tunnel book. During the painting process, it was noted that the researcher enjoyed the imagery that was being achieved with the liquid watercolor on Yupo paper. It was not necessary to achieve an exact likeness of the statues in order to feel successful with the finished design.

Achieving an acceptable likeness was also a concern in the third tunnel book. St. John the Baptist Catholic Church was the subject of this book. The researcher struggled with finding a pleasing perspective on the interior of the church. The first tunnel book was invaluable in addressing this issue. Again, the researcher realized creating imagery that gave an indication of what was there would give the viewer the feeling of looking in a church. Along the sides of the frame, decorative elements that were stenciled in the church were recreated. The Canson drawing paper that this book was drawn on was a sufficient weight to create the frames from. The researcher was able to create the frames for the tunnel book by drawing on the paper and following Huebsch's instructions, cut away any unwanted interior sections. As mentioned

previously, this book was more stable than the larger tunnel book that was assembled using the accordion hinge technique of the same size. The hinges on this book were initially assembled using a glue stick. This approach did not yield positive results as when assembly of the panels and accordion fold began, the hinges came unglued from the frame. They could have been reattached with a glue stick again; however, since this portion of the tunnel book could possibly receive heavy handling, it was decided to reassemble with double-sided tape. While double-sided tape would be more expensive than a glue stick, it would be less frustrating for students to use.

The idea behind the final tunnel book with moveable frames has potential but was not as polished and as aesthetically pleasing as the other tunnel books that were created (see Figures 4.18 and 4.19). Finding an inexpensive way to have the stand made from wood might add to



Figure 4.18. Side of tunnel book

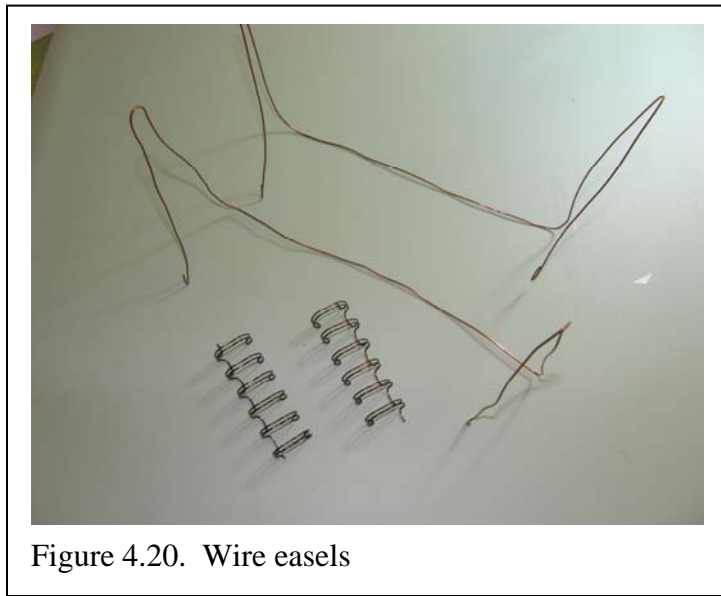


Figure 4.19. Tunnel book with frame removed

visual appeal. Dr. Ann Waltz, Director of The Art School for Children and Young Adults at the University of Houston in Clear Lake reviewed the books and suggested using the foam core stand as a way for students to view their tunnel books in process. Prior to this, the researcher

created wire easels that were discussed in Huebsch's 2009 article on accordion books (see Figure 4.20). Both approaches would be effective; however, the wire easels have the potential to become tangled during storage.

The YES paste was used on the back panel of this tunnel book following Ruffin's instructions. The paste spread easily and was able to be applied in a thin even layer. The paste



became slightly shiny which made it easy to see if areas had been missed. The paper was placed on top of the board and a bone folder was used to smooth out the surface. The glued board was placed under weight to dry overnight. The methyl cellulose also yielded positive results. Instructions on the container recommended mixing

a teaspoon with a cup of water. This ratio was halved due to the small amount of glue being used. The methyl cellulose needed to sit for a minimum of 45 minutes before mixing with the PVA. After mixing the methyl cellulose with the proper ratio of PVA, the mixture was brushed on the paper being adhered to the board. The solution was slightly watery compared to just PVA but was also moveable when the two pieces of paper were glued together. Again a large image was being adhered to a back panel. Using the methyl cellulose would require advance planning so students would not need to wait to use it.



Figure 4.21. Painted images of tunnel book based on interior of St. Cyril and Methodius church

Opinions

The tunnel books were viewed by individuals who attended the tour of the Painted Churches. It was important to receive their feedback since they were familiar with the architecture and design elements of the churches and would be able to comment on if the tunnel books represented the churches. Jane Hartweck and Mary Chohrach viewed the four tunnel books. Of the four books, the two that were favored the most were the ones that were based on the churches of St. Cyril and Methodius, and St. John the Baptist. The book about St. John the Baptist

Church was a model of the church. Both individuals liked how the design was laid out and felt it captured the church as they remembered it. Chohrach shared, “When I visited the churches I was struck by the use of color and the detailed design elements painted on the walls and ceilings, so the books that were the most colorful and were embellished with design elements from the church were most evocative of my visit to the painted churches” (M.F. Chohrach, personal communication, November 25, 2012). Overall, they enjoyed all of the books but felt the one that was themed on the Saints needed more detail. They commented that the book which was made with color photocopies was a bit simple compared to the others; however, they did find the idea of the moveable panels appealing and asked if they could move them.

In addition to individuals who participated in the tour of the Painted Churches, the tunnel books were also viewed by Dr. Ann Waltz. Dr. Waltz viewed the books and provided suggestions and comments on construction and media. Dr. Waltz suggested another engineering option might be to glue the frames to one side of the accordion rather than try and fit in the middle with the use of the hinge. This might be an easier approach for students. Dr. Waltz shared an example from one of her students that demonstrated this. Both the researcher and Waltz agreed that this approach cut down the amount of light that entered the tunnel book. Dr. Waltz also suggested other construction options. For example, creating a smaller tunnel outside of the back panel and varying the size of the frames to get progressively smaller. While reducing the open space was incorporated into the tunnel book that was a model of the church, it was very slight. Creating a more noticeable progression might achieve the perspective more effectively. Overall she felt the books were well done and enjoyed sharing feedback.

Conclusion

The findings uncovered during this research are significant for use in the middle school classroom. Three new construction techniques were learned and applied to tunnel books. Three of the four books were constructed with materials that were new to the researcher with regards to tunnel book construction. The researcher was familiar with Lenox paper, the material for the fourth book; however, experimentation with gouache on it was a new media approach. Colored pencils and liquid watercolor also proved to be valid media for use with tunnel books. The findings about new construction techniques for tunnel books were beneficial for creating a unit to teach students about tunnel books. In addition, learning about new materials and applications for existing materials will also be shared with students. The experimentation involved in the study allowed the researcher to experience the learning process from a student viewpoint. Chapter five

will expand on the impact the study has had on the researcher and how the information gained will be shared in classroom applications with students.

Chapter Five: Discussion and Conclusion

Chapter five discusses the personal impact the study has had on the researcher. It will share with the reader how new information gained will be introduced to students and how teaching practices have been affected. Plans for future tunnel books are also shared. The chapter concludes with advice for art teachers and the field of art education.

Discussion

Personal Impact of the Study

Expanding artistic learning through the exploration of tunnel book construction techniques was a goal of this research study. Only having done one tunnel book, and seeing images of others, the researcher felt confident new information would be uncovered. A primary consideration was determining what was appropriate and engaging for middle school students and experimenting with those approaches, materials, and media. Although not being able to use an Xacto knife was frustrating at times, it was proved that the tunnel books could be made using scissors as a cutting tool. During experimentation with new materials, the researcher was placed in the position of a student being introduced to something for the first time. While explaining something slowly and thoroughly can seem tedious at times, it will allow students opportunities to experiment with materials that will build their confidence and expand their knowledge.

During the literature review, new processes for creating tunnel books were discovered. The intended grade level of the unit is middle school students. However, the researcher questioned if some of the tunnel book techniques being researched could possibly be taught to elementary students. Theoretically, the middle school unit could be adapted to meet the needs of younger students. Providing themes for students to choose from and limiting the selections of materials and techniques would simplify the lessons included in the unit.

Impact on Practice

The researcher has a personal interest in church architecture. However, working at a private Catholic school influenced the idea to design a unit about religious architecture. Students receive daily instruction in religion and a unit on religious architecture would provide a visual perspective to that subject. The unit plan, “Exploring Religious Architecture and Symbols Through Tunnel Books”, will further introduce students at St. Clare School to the art of the handmade book. Middle school students had previously hand stitched their own sketchbooks. They experienced a great sense of accomplishment when the books were finished. In this unit, they will have an opportunity to experiment with new materials or new ways to use familiar materials, as they explore construction techniques of tunnel books. Carroll (2003) cited Burton (1980) who explained:

Finding out what materials can do involves both experience and reflection. Developing, over time, a sense of what materials can do, ways to personalize their use, options of combining and mixing media, and preferences for expression, all contribute to mindful, artistic development (p. 116).

Creating with new materials and experimenting with limitations exemplifies artistic learning in an individual. Students can choose to investigate a construction process they are interested in and is suited to their level of ability. This will contribute to a successful and satisfying experience. (Carroll 2003) Exploring the theme of religious architecture and symbols provides students the opportunity to “engage with the problem while promoting choice making, originality, elaboration, and the creation of work that has personal meaning and value” (Carroll, 2003, p. 126). When students choose to research a subject that is of personal interest to them, the experience is more meaningful.

Recommendations

Time limitations and personal and professional commitments constrained the researcher from fully exploring additional techniques, materials, and media. If the study were to be done again, ways to incorporate additional information regarding the history of the Painted Churches into the tunnel books would be investigated. The addition of text into the tunnel books, possibly on the accordion folds or backs of the tunnel book frames, could better inform the viewer. Further investigation into how to create a tunnel book with moveable parts would also be researched. Exploring other media, such as printmaking, would be interesting and engaging for middle school students. Experimentation with the scale of the tunnel books could be an interesting approach for introducing the tunnel book to younger students. Craig Hinshaw (1999) described an interactive tunnel book that students were able to walk through. Using a refrigerator box, he constructed the sides of the tunnel book. Students as young as first grade created art images that were glued onto the sides

Exploring tunnel books during this study has further enhanced the researcher's interest in them. Experimentation with techniques that were revealed during the study will continue, and investigation into new techniques will also be done. In addition to experimenting with large scale tunnel books, the researcher is investigating how small a tunnel book can be made. Is it possible to create a tunnel book inside of an Altoids tin? New ways to present imagery from the Painted Churches have been visualized as the researcher plans to create additional tunnel books. In addition, other historic churches in Texas are being considered as subjects of future tunnel books to reflect the researcher's interest in church architecture.

As a visual narrative, the tunnel book can be incorporated into other core academics for example social studies. The tunnel book could be used to present the history of a country or its

culture. In addition, sharing the information gained during the study is also a goal of the researcher. Recently the researcher began working with the director of the Gifted and Talented program in the Clear Creek School District (CCISD) to develop a mini course focused on book arts. The course will be designed for fourth and fifth grade students in the district's Alpha program. Presenting a workshop to art instructors needing to fulfill professional development hours or teaching a course to students during a summer program are ideas that are also being pursued.

Conclusion

Advice to the Field of Art Education

As the researcher was conducting this study, it appeared that the area of book arts and tunnel books are still new subjects for some instructors of art. Burkhart (2006) cited Cotter (2005) who noted, "Artists are creating more artists' books than ever and attention to the book as an art form is growing" (p. 269). Information regarding tunnel books is available but is limited to a chapter in a book, an art journal, or webpage. This exemplifies the need to be a "continual learner" (Simpson, 1998, p. 334). It is critical that art educators stay informed through workshops, classes, personal art-making, subscribing to artist journals, and joining local or national art organizations. By staying informed of advances in teaching and new materials, we can better inform ourselves and our students.

Advice to Art Teachers

Teaching art is an opportunity to bring the world to a child. Through our teaching, we can connect students to almost any aspect of life whether it is expressing culture in social studies, creating a handmade book to tell a story in language arts, illustrating for an assignment in science or, designing a tessellation for mathematics. Being aware of our student's needs and

abilities, we design problems that invite inquiry. It is through inquiry and experimentation in art that artistic learning expands and develops. Sharing artistic knowledge with students enables the students' art-making experiences to be meaningful. Learning a new concept and sharing that knowledge with students, can be rewarding for both teacher and student.

References

- Aguilar, M. W. (2012, April 8). Gems of Texas. *Houston Chronicle*, pp. G1-G10.
- Ayers, A., & McMillan, E. (2003). *Sculptural bookmaking*. Worcester, MA: Davis Publications.
- Bartel, G. (2012, April 24). *That Artist Woman*. Retrieved November 2, 2012, from <http://www.thatartistwoman.org/2012/04/how-to-make-tunnel-book.html>
- Brewer, T. (2012). Summary of a recently taught workshop: "How do I make it stick?" - a non-scientific discussion of selected adhesives for use in conservation and book arts. *The Bonefolder: an e-journal for the bookbinder and book artist*, 8, 59-65.
- Burkhart, A. I. (2006, Spring). "Mongrel nature:" A consideration of artists' books and their implications for art education. *Studies in Art Education*, 47(3), 248-268.
- Carroll, K. L. (2003). *Better practice in visual arts education*. Baltimore, MD: Maryland State Department of Education.
- Duarte, F. (2007, July). Using autoethnography in the scholarship of teaching and learning: Reflective practice from 'the other side of the mirror'. *International Journal for the Scholarship of Teaching and Learning*, 1(2), 1 - 10.
- Eisner, E. W. (1967, October). Changing conceptions of artistic learning. *The Elementary School Journal*, 68(1), 18-25.
- Ferdinand, R. (2009, Fall). What's in a story?: Using auto-ethnography to advance communication research. *American Communication Journal*, 11(3),
- Feldman, E. B. (1996). *Philosophy of art*. Upper Saddle River, NJ: Prentice Hall.

- Freedman, K. (2010, March). Rethinking creativity: A definition to support contemporary practice. *Art Education*, 63(2), 8-14.
- Golden, A. (2010). *Making handmade books: 100+ bindings, structures and forms*. Asheville, NC: Lark Crafts.
- Harwood, B. (1993). *Decorating Texas: Decorative painting in the lone star state from the 1850's to the 1950's*. Fort Worth, TX: Texas Christian University Press.
- Hinshaw, C. (1999, November). Looking into tunnel books. *Arts & Activities*, 126(3), 34-35.
- Huebsch, R. (2005, Spring). Tunnel book: A theatrical structure. *The bonefolder: An e- journal for the bookbinder and book artist*, 1(2), 20-24.
- Huebsch, R. (2009). Accordion and tunnel books. *Guild of Bookworkers Journal*, 82-92.
- LaPlantz, S. (1995). *Cover to cover*. Asheville, NC: Lark Books.
- Lowenfeld, V., & Brittain, W. L. (1987). *Creative and mental growth* (8th ed.). New York, NY: Macmillan Publishing Company.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Thousand Oaks, CA: SAGE Publications.
- Oakes, A. (2009). *KLRU*. Retrieved November 30, 2012, from <http://www.klru.org/paintedchurches/praha.html>
- Roberts, T. (2005, March). Teaching real art making. *Art Education*, 58(2), 40-45.

Rozelle, Z. D. (1994, May). Minimal conditions in art classrooms and strategies to overcome "bare bones art". *Art Education*, 47(3), 45-46.

Simpson, J. (2012). *Boston University*. Retrieved September 29, 2012, from https://onlinecampus.bu.edu/bbcswebdav/pid-18334-dt-content-rid-40175_1/courses/00cwr_arted_infoc/03_research_project_preparation/Overview_of_Research.pdf

Simpson, J. W., Delaney, J. M., Carroll, K. L., Hamilton, C. M., Kay, S. I., Kerlavage, M. S., & Olson, J. L. (1998). *Creating meaning through art: teacher as choice maker*. Upper Saddle River, NJ: Prentice-Hall.

Smithsonian Libraries. (2010, April 29). Retrieved September 28, 2012, from <http://smithsonianlibraries.si.edu/smithsonianlibraries/2010/04/the-dance-of-the-tunnel-book.html>>

St. Mary's Catholic Church Nativity of the Blessed Virgin Mary. (n.d.). Retrieved November 21, 2012, from <http://www.stmary-highhill.com/Conservation.html>

Sullivan, G. (2010). *Art practice as research: Inquiry in visual arts* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Szekely, G. (1994, May). Shopping for art materials and ideas. *Art Education*, 47(3), 9-17.

Texas Education Agency. (2007). Retrieved from <<http://www.tea.state.tx.us/index.aspx>>

Wolf, D. (1988, Spring). Artistic learning: What and where is it? *Journal of Aesthetic Education*, 22(1), 143-155.

APPENDIX A
UNIT PLAN

RATIONALE STATEMENT

The following unit will introduce students to the concept of the tunnel book. They will view images of the first tunnel book from the 1800s as well as tunnel books by current artists. There are many approaches to using the tunnel book as a visual narrative. Introducing students to this art process will present them with just one of the approaches to creating art with books.

During the studio lessons students will create a model of a tunnel book before creating their final book. Having students make personal choices about a subject to research and create their own tunnel books based on that research, will provide a meaningful experience in art while integrating math and social studies skills. As Feldman (1996) noted, “there is the enhanced sense of personal worth that comes from *adding value* to materials by the use of one’s personal resources”(p. 29). During the final lesson of the unit, students will share their books with their classmates. They will discuss and critique their books as well as peer designed books. The Texas Essential Knowledge and Skills (TEKS) will be used as a guide to ensure lessons are meeting state standards.

TEACHER: Janet Reynolds

CLASS: 6 – 8th

DESCRIPTIVE TITLE: Exploring Religious Architecture and Symbols Through Tunnel Books

GOALS: *(Based on the Texas Essential Knowledge and Skills Standards)*

Students should:

Understand:

- The importance of the book as an art form. (TEKS 117.32 (c)(3))
- Similarities and differences within cultures. (TEKS113.18 (b)(15)(A))

Know:

- How to construct a tunnel book. (TEKS117.32(c)(2)(C))
- The elements of art and their function in an art work. (TEKS117.32 (c)(1)(B))
- How to use a ruler and drawing tools. (TEKS 111.22(b)(11)(A))
- About career opportunities in art. (TEKS 117.32(b)(3)(C))

Be able to:

- Demonstrate proper use of art materials. (TEKS117.32(c)(2)(C))
- Create a finished tunnel book based one of the techniques discussed.
(TEKS117.32(c)(2)(A))
- Research a historical subject that has personal interest. (TEKS113.18(b)(3)(A))
- Explain significance of religious traditions and observances. (113.18(b)(19)(B))
- Analyze and critique personal artwork and artwork of peers. (TEKS117.32
(c)(4)(B))
- Analyze and critique personal artwork in process and at conclusion. (TEKS
117.32 (c)(4)(A))

INSTRUCTIONAL CONCEPTS:

Students will be introduced to the history and concept of the tunnel book. They will also view images of books using nontraditional book making materials. They will learn about the book as an art form and look at several images of tunnel books as well as exemplars of tunnel books.

Students will be required to research a religious structure of their choosing. The reference material gathered will be used to inspire and influence the design decisions they could incorporate in their tunnel books.

Students will learn how to make a tunnel book. Several construction processes of tunnel books will be demonstrated before students begin making design decisions. Paper and media options will be discussed in addition to non-traditional book making materials. As Lowenfeld (1987) noted, “it is important to make sure that any materials used are also used by professional artists” (p. 423). Students will choose their own construction approach. The personal choices that students make will make these books uniquely theirs. Prior to starting their final book, a model will be made to work out design details and construction issues that might arise.

The teacher exemplar will be shared with students. Students will work on preliminary sketches to determine the design of their book. Upon completion of the books, students will critique and review their book designs. They will also view the books of their peers.

LESSONS:

Lesson One: An introduction to tunnel books is presented. Students will view and discuss a power point with images of tunnel books. Approaches to tunnel books are presented along with teacher exemplars. Handouts with instructions for creating different tunnel books will be given to students.

Lesson Two: Students view a Power Point of the Painted churches of Schulenburg, TX. This is presented as an example of religious architecture. The students will be required to choose a religious structure or place of worship that will be used as inspiration for their tunnel book.

Lesson Three: The teacher will review the handouts from lesson one and demonstrate processes for constructing a tunnel book. Students will decide what book format they want to pursue and make a model from newsprint to decide how they will approach their final book size and design. Decisions regarding media and materials for the final book will be made. The assignment is explained and assessments are handed out detailing expectations of project. As students work, teacher checks for understanding of process.

Lesson Four: Students will refer to handouts and models as they begin construction on their final tunnel books. Teacher will circulate to check for students needing assistance. Tunnel book frames or books, depending on approach, will be placed between sheets of wax paper and placed under weighted boards to dry.

Lesson Five: Tunnel books are displayed. Students critique books to review different approaches to assignment. Students reflect on technique, paper, and media chosen to create tunnel books.

. MATERIALS AND RESOURCES:

- Materials:

Newsprint

Grid paper

Vellum

Papers for construction of final books (Students will choose from classroom selection or bring personal materials)

#2 pencils

Bone folder

PVA glue

Double-sided tape

Methyl Cellulose

YES paste

Glue sticks

Scissors

Xacto knife

Ruler

Wax paper

Chip board or matt board

Brush for glue

Erasers

Rand Huebsch's article *Accordion and Tunnel Books*

Gouache

Liquid watercolor paints

Colored pencils

Photographs

Markers

- Exemplars

Teacher's Personal tunnel books

Laura Davidson tunnel book

- Teacher's visuals:

Power point of tunnel books

Power point of painted churches

ASSESSMENT:

In-process self assessment check list for construction of tunnel book

Final assignment rubric

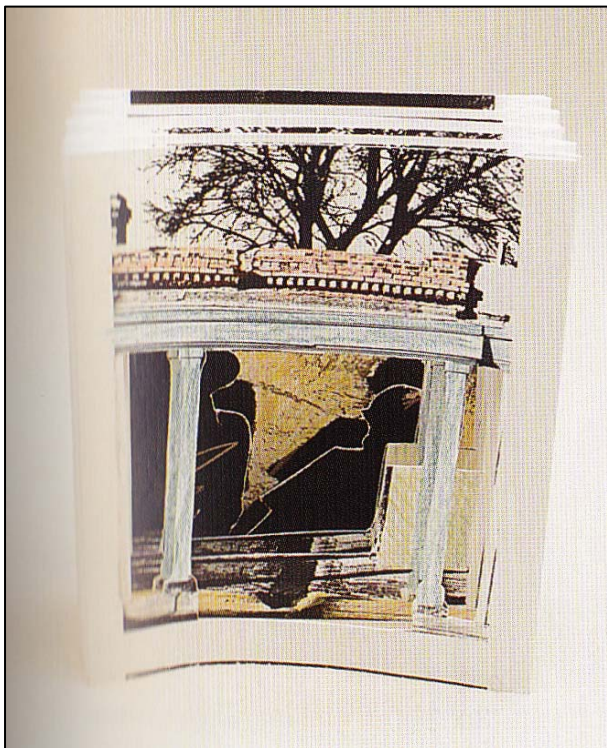
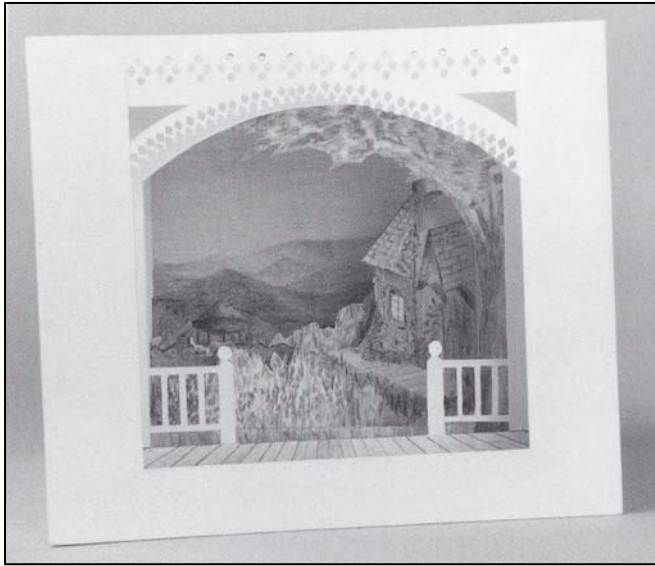
Observation of student work

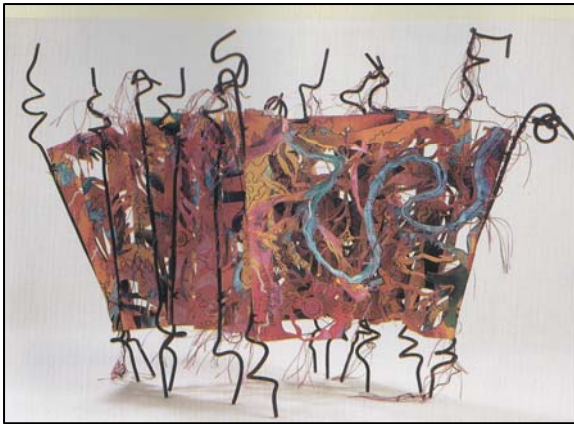
Exemplars

Images of one of the first known tunnel books created by Martin Engelbrecht (1684-1756) of Augsburg, Germany

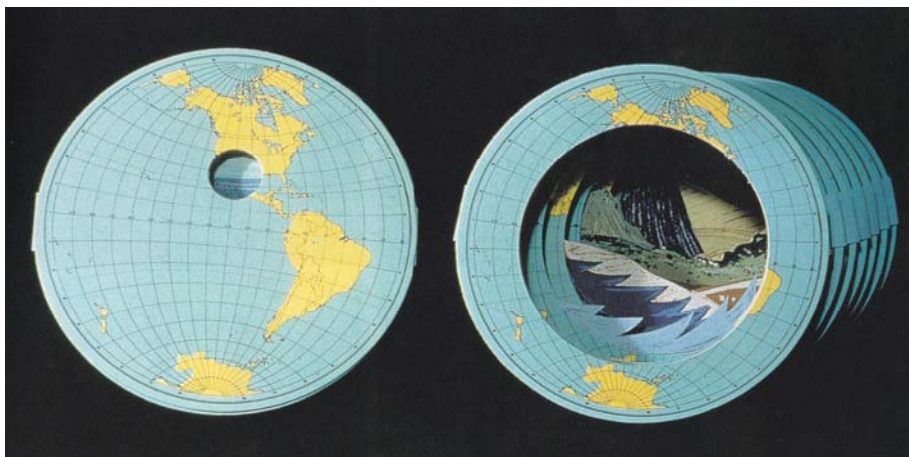


Clockwise from top right:
Bruce Gambill, *Travois Labyrinths*, 1991
Edward Hutchins, *San Francisco & Friends*, 1997
Alisa Golden, *New Mexico*, 1995
Anita Beaumont, *Untitled*, 1993





Stacy Barnell, *Wired*, 1995
Alex X. Cruz, *Greek Pangea*, 1990
Dorothy Swendeman, *Lace*, ND
Carol Barton, *Tunnel Map*, ND



APPENDIX B



Figure B1. Tunnel books completed during study



Figure B2. Interior of St. Cyril and Methodius Catholic Church



Figure B3. St. Mary's, Praha, TX



Figure B4. St. John the Baptist, Ammannsville, TX



Figure B6. St. Mary's, High Hill, TX



Figure B5. St. Cyril and Methodius, Dubina, TX



Figure B7. Original paint revealed during restoration



Figure B8. Interior of St. Mary's, Praha, TX



Figure B9. Ceiling of St. Mary's, Praha, TX



Figure B10. Decorative painting and Psalm in St. Mary's, High Hill, TX

Table B1. Tunnel Book Specifics

Church	St. Mary's Praha	St. Mary's High Hill	St. John the Baptist	St. Cyril and Methodius
Theme	Elements of design	Saints	Model of Church	Elements of Church
Size	9 1/2" x 4 1/2" x 6"	8" x 10"	5" x 7"	14" x 22" opened flat
Model Construction	Grid paper with b & w photocopies	Grid paper with sketches of saints	Perspective drawing of interior that was then arranged on frames.	Drawing paper
Construction	Moveable panels. 1/2 " thick foam core was used as a base. Pizza cutter worked great for cutting groves that frames will fit into. Because frames are separate they can be rearranged within the foam core.	Rand Huebsch construction process. Accordion hinges were made. No Xacto knife needed to cut tabs in accordions. Student friendly.	Rand Huebsch accordion hinge. Hinge was decorated with elements from church structure. Images were transferred to frame and unwanted interior cut away.	Single sheet of Lenox paper. Paper was cut and folded to make an accordion/tunnel book.
Adhesives	PVA (Polyvinyl acetate) with Methyl cellulose(MC). MC made PVA dry slower allowing for repositioning on board.	Double sided tape	Glue Stick and double sided tape	PVA , PVA with Methyl cellulose(MC). MC made PVA dry slower allowing for repositioning on board.
Media	Photocopies glued on Strathmore 100# Bristol Vellum, Frames from 100lb Bristol	Frames constructed from Canson Colorline paper. Saints images painted on Yupo paper with liquid watercolor. Accents done with black Micron pen and gold paint pen & gold gel pen	Canson Drawing paper, Derwent colored pencils and watercolor colored pencils, pencil, copper gel pen	Gouache on Lenox paper, gold paint pen, black Micron pen. Enhanced photos of altars.
Advantages/ positive	Panels were able to be repositioned. Foam core could be used as an alternative to wire easels when planning frames.	Hinge allows for viewing more of side panels from outside of book. Lets more light in.	Drawing paper took colored pencil well.	Appropriate for students possibly younger than middle school.
Disadvantages/ negative	Did not feel construction approach was as polished. Like idea of moveable panels but dislike foam core.	Additional paper that comprises hinge adds bulk to book. Does not compress down as flat as book with tabs in accordion.	Glue stick did not stick well. Repaired accordion hinges with double sided tape	Slightly awkward when folding.

Table B2. Expenses for Study

Paper	Size	Weight	Cost per sheet
Strathmore Bristol Vellum	14" x 17"	100 lb	\$1.50
Canson Drawing Paper	19.5" x 25.5"	138 lb	\$1.60
Strathmore Watercolor Cold Press	9" x 12"	140 lb	School supplied
Canson Colorline Black	19 x 25		\$3.60
Yupo Translucent Watercolor	9" x 12"	104 lb	\$12.72
Tour of churches	\$10. per person plus \$50. tip. Researcher paid tip for group.		\$60.00
Additional supplies			
Methyl cellulose			\$10.92
LINECO Adhesive (PVA)			\$8.67
Double sided tape			\$2.99
Gouache			\$12.99
Micron Pigma pens			\$7.99
1/2 thick Foam core			\$4.19
Liquid Watercolor paint			school supplied
Misc. pens, markers,			\$10.00
Gas to drive to & from Schulenburg			\$30.00
			\$167.17