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THE BROWN FAMILY ARCHIVE:

Assigning

Intellectual Order

&

Physical Arrangement

to a

Private Photographic Collection

by
Taylor Whitney
-August 2006-

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The Brown Family Archive: Assigning Intellectual Order and Physical Arrangement to a private Photographic Collection

by

Taylor Whitney

Bachelor of Arts, Child Psychology California State University at San Bernardino San Bernardino, California USA

A thesis project presented to
Ryerson University and George Eastman House
in partial fulfillment of the requirements for the degree of
Master of Arts in the program of
Photographic Preservation and Collections Management.

Toronto, Ontario, Canada & Rochester, New York, United States 2006 *Taylor Whitney 2006 UMI Number: EC53629

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I wish to acknowledge the faculty and staff of Ryerson University and George Eastman House. The program afforded us the opportunity to be taught by experts in the field, spring-boarding us to becoming experts ourselves. By combining academic studies, real world opportunities, enthusiasm, passion, and collective knowledge over the course of two years, they have produced students who can enter the workforce with confident professionalism. The education I have gained, raised my level of expertise, which I will carry with me throughout my career.

I thank Elisabeth Caron, Megan Harris and Jennifer Tyner for their help during group projects using The Brown Family Archive. Especially Jennifer Tyner for her pleasant attitude, expertise and patience in hi-res scanning and archival housing of six photo albums from the collection [for work on her thesis project]. I extend a special thanks to Professor Robert Burley for his continued encouragement; Professors Don Snyder, Bill Kirby, Mike Robinson and independent contractor, Angela Spinazze, for their advice and expertise in analyzing the collection and offering guidance and direction for the project.

I express sincere appreciation to James-Paul Brown and Dr. Juliet Rohde-Brown who generously donated their collection for use in this project. James-Paul entrusted me with his photographic heirlooms, and allowed me technological and creative freedom to run with the project. I also thank William Brown who openly offered insight into the Brown family history, shared his memories of growing up in Crown Point, and his experiences as Executive Vice-President of First National Bank.

I am tremendously grateful to Bruce Woods, Director of Lake County Historical Museum, President of Lake County Historical Society and Lake County Historian. His knowledge of Crown Point, Indiana and the surrounding area, aided me in researching the Brown Family, thereby bringing intellectual order to the collection. I also acknowledge all personnel at Crown Point Chamber of Commerce and Lake County Court House, who embraced and encouraged me during my internship and over the past year. I thank Marlene Polster, for her in-depth genealogical research, which brought a new level of dimension to the meaning of the photographs.

I thank my siblings, family and many friends whose encouraging emails, cards and letters inspired perseverance. I thank my benefactors, with whose help this pursuit would not have been possible.

Dedication

To my mother and grandmother, for instilling in me a love and respect for family photographs.

And to my sister, Jodie, for her patience, love and support.

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The Brown Family Archive: Assigning Intellectual Order and Physical Arrangement to a Private Photographic Collection

Taylor Whitney
Master of Arts, Photographic Preservation and Collections Management
Ryerson University and George Eastman House
2006

This project focuses on the methodology of assigning intellectual and physical arrangement to private family photographic collections. I selected The Brown Family Archive as a case study, working directly with the Brown Family and Lake County Historical Museum in Crown Point, Indiana. The collection brings together photographs and related artifacts from the Civil War, The First National Bank of Crown Point, Indiana, and several interrelated families. The size and scope of the collection is analogous to many family collections. It is historically and culturally significant due to its visual documentation of a sociological milieu in the United States during 18th and 19th centuries. Equally important, the photographs offer insight into the widespread problem of deterioration due to improper housing, mishandling, and chemical break down. Through research and best practices in photographic preservation and collections management, the project delivers a model for use by family historians, museums, historical societies and libraries.

Brown Family Archive: Assigning Intellectual Order and Physical Arrangement to a Private Photographic Collection

This project focuses on the methodology of assigning intellectual and physical arrangement to a family photographic collection. Through research and analysis of practical approaches to preservation and collections management, this paper will offer a model for undertaking the organization, cataloguing and housing of similar collections of this scale that are often found in museums, archives, libraries and historical societies around the world. Private collections originate in a domestic setting; they usually include studio portraits, amateur snapshots, photo albums, scrapbooks, framed pictures, letters and more. They are often in no apparent order, and as a rule there is little information available to bring intellectual order to the collection. Collections of this kind are often accessed by a variety of researchers that include historians and genealogists. Private family photographs can be difficult to interpret because more often than not, there is little supporting information describing the subjects and events or that offers a collective explanation of the collection. Alternatively, other types of photographic collections may be in a specific order and have a cataloguing system already in place with supporting material provided by the photographer, which describes and explains the photographs for future users (researchers, curators, etc.) of the collection. It is unusual that a family collection has a cataloguing system incorporated, or has been administered to by a collections manager or archivist. The storage and housing conditions of most private collections are often not a concern, or the awareness level is such that the collection may have been in drawers and boxes for decades. Consequently, the methodological approach to organizing and housing collections of this manner can be different from other types of collections.

The Brown Family Archive consists of approximately 2,400 photographs and supporting artifacts, which originated in Lake County, Indiana about 60 miles east of Chicago, Illinois. The private collection contains historical and culturally significant documentation of the Civil War, The First National Bank of Crown Point, Indiana and a number of interrelated families who were early settlers to the area and established the township of Crown Point, Indiana in the early 1800s.

THE PROJECT-OVERVIEW

To explore procedures used in achieving the goal of long-term preservation and public accessibility of a photographic collection, I conducted a case study using the Brown Family Archive as a model. I provide a description of steps taken to organize and preserve a private family collection of photographs, explaining each step in detail and offering justification for my decisions. The steps conducted, which illustrate the methodology of this project, are intellectual organization, cataloguing, digitizing, database input and management, storage, housing, and physical arrangement. The resulting methodology serves as a model for archivists, librarians, curators and family historians faced with the task of archiving similar collections.

The Brown Family Archive is a private photographic collection belonging to James-Paul Brown of Santa Barbara, California. I became aware of this collection in 1998, while working with his wife, Juliet Rohde-Brown as a contracted family archivist. The collection dates from 1847-1980s documenting the lives and occupations of at least three prominent families, The Browns, The Iddings and The Banks.

In October of 2004, when I began the Master of Arts program in *Photographic Preservation and Collections Management* at Ryerson University in Toronto, Canada, I requested the permission of James-Paul Brown to use this private collection for my thesis project. The photographs arrived in two large boxes interspersed with packing materials (Styrofoam peanuts) and other small boxes.



Images 1,2. The state of this collection is indicative of its neglect for more than 50 years.

I used the collection for several class projects throughout the two-year program, consequently gaining an understanding of the intricacies surrounding its contents. (See appendices).

During this time, I had many discussions with the Lake County Historical Museum (LCHM) and James-Paul Brown about finding an appropriate depository for the collection. These discussions revolved around proper storage of the collection at the museum and the need for accessibility of these materials by the community. These two factors, environmental concerns and public accessibility justified our decision to store the collection in the Lake County Court House at LCHM.

My role as archivist and steward of this collection aids in bringing the artifacts together, providing public access and safe storage. Defining this role dictated the decisions made over the course of the project.

THE PROJECT-DESCRIPTION

Over the course of this project I worked with a noteworthy photographic collection and consulted the surviving members of the Brown Family as well as the Lake County Historical Museum in Crown Point, Indiana.

Through extensive consultation with the current owner of the collection, James-Paul Brown and his brother, William Brown, as well as the Director of LCHM, Bruce Woods, I have conducted research in relation to practical considerations, relevant and applicable to other collections and institutions. Over a period of two years, I have undertaken an account of the artifacts, researched the Brown family history, and examined a variety of issues related to the preservation of small private collections. I analyzed common practices in museums and spoke to archivists who work with similar collections. I referenced respected literature in the field, such as Administration of Photographic Collections, A Guide to the Preventive Conservation of Photograph Collections² by Bertrand Lavédrine, James Reilly's Care and Identification of 19th-Century Photographic Prints³, and Henry Wilhelm's flagship book, The Permanence and Care of Color Photographs⁴. I applied standardized practices set forth by conservation and preservation experts in such organizations as Library of Congress, the Society of American Archivists, Photographic

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³ James Reilly, Care and Identification of 19th-Century Photographic Prints (New York: Eastman Kodak Company, 1986).

¹ Mary Lynn Ritzenhaler, Gerald Munoff & Margery S.Long, Archives and Manuscripts: Administration of Photographic Collections (Chicago: Society of American Archivists, 1984).

² Bertrand Lavédrine, A Guide to the Preventive Conservation of Photograph Collections (Los Angeles: The Getty Conservation Institute, 2003).

⁴ Henry Wilhelm and Carol Brower, *The Permanence and Care of Color Photographs: Traditional and Digital Color Prints, Color Negatives, Slides, and Motion Pictures* (Grinnell, Iowa: Preservation Publishing Company, 1993).

Materials Groups, and the Getty Research Institute. Additionally, I consulted numerous resources, which are noted, in my bibliography.

Taking the project beyond its requirement for Ryerson University's Master of Arts in Photographic Preservation and Collections Management, I will continue working with Mr. Woods, the Brown Family and the community of Crown Point. The goal is to provide safe housing for the entire collection, conduct further research in order to identify the subjects in the photographs, and make the collection accessible to the community both physically and virtually. There are plans to exhibit the collection and the project methodology at LCHM. To that end, my colleague, Jennifer Tyner, scanned six albums (from this collection) for her thesis project on page-turning software. Tyner's research and applied project marks the beginning of the virtual presence phase of this undertaking.



Image 3. Page-turning software could be featured in an exhibition kiosk such as this.

⁵ British Library Online Gallery: *Turning the Pages*; FlipAlbum[®]. See bibliography for website information.

THE PROJECT-LAKE COUNTY HISTORICAL MUSEUM

The Lake County Historical Society established the LCHM in 1982. It is located on Court House Square in the center of Crown Point, Indiana on the second floor of the 1878 landmark building, Lake County Court House.

Its mission is to collect, preserve, and display the history of the county, its pioneers and early settlers.⁶ By virtue of its mission



Image 4. Lake County Historical Museum is located on the 2^{nd} level of this building.

statement alone, The Brown Family Archive belongs in this museum. Additionally, representative items are already in the museum. In its library, are regionally published

books citing members of the Brown, Banks and Iddings families. Orin and Nathaniel P. Banks, John Brown, and Homer L. Iddings, all early settlers of Lake County, are referenced in Reverend T.H. Ball's, 1904 edition of Encyclopedia, Genealogy and Biography of Lake County Indiana. (See appendix 3.) The Browns are also mentioned in Crown Point, Indiana 1834-1984, by Charles & Mabel Swisher. Photographic and newspapers files have several family historical



Image 5. A painting of John Brown hangs on the wall of "The Bank Room" at LCHM.

references. John Brown was one of the founding members and president of The First National Bank of Crown Point, Indiana for 42 years. Photographs and artifacts of The First National Bank are on permanent exhibition in the museum's "Bank Room" as well as a model depicting the growth of the First National Bank, designed in the 1970s by Peter Brown, the bank's last Brown Family President.

⁶ Crown Point Court House, "Museum," *Lake County Historical Museum*, http://www.cpcourthouse.com/museum.php, (accessed July 19, 2006).

Lake County Historical Museum is indicative of many small museums; run entirely by volunteers, it is under-funded and understaffed. Acquisition policies are primitive; there is no database system in place,⁷ the use of archival materials is scarce, and there is limited knowledge on long-term preservation and storage issues. The museum is operated with funding from donations, bequests, and grants, such as Crown Point Community Foundation and Legacy Foundation of Lake County.



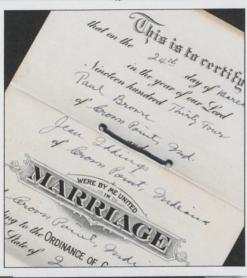
Image 6. LCHM permanent exhibition of Peter Brown's depiction of the growth of First National Bank of Crown Point, Indiana.

⁷ As of July 2006, the museum purchased PastPerfect Software™, and initiated database management of their collection.

THE COLLECTION-INTERPRETATION OF CONTENTS

By working with the collection, it became apparent that it had passed through three generations of daughters. The Civil War Era documents and photographs were handed down to Myrtle (Banks) Iddings by her mother Clara (Chandler) Banks. Myrtle (Banks) Iddings passed the Banks' artifacts and the Iddings' artifacts (turn-of-the-century), to her daughter Jean (Iddings) Brown. Jean (Iddings) Brown added substantially to the collection with studio portraits and snapshots of her four sons. Jean (Iddings) Brown also added her husband's (J. Paul Brown) photographs, which are primarily corporate documentation of The First National Bank.







Images 7,8,9. The Brown Family Archive passed through three generation of daughters.

John Brown, (founding member of the First National Bank), was J. Paul Brown's grandfather and great-grandfather of Peter Brown, William (Bill) Brown, James-Paul Brown and Anthony (Tony) Brown, the current generation of the Brown Family. (See Table 1.)

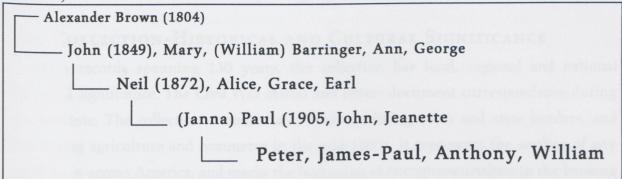


Table 1. Brown Lineage



Images 10, 11, 12, 13. John Brown, Neil Brown, J. Paul Brown & Peter Brown – four generations of First National Bank of Crown Point, Indiana Presidents.

Nathaniel P. Banks and John Brown were both Civil War soldiers. Civil War diaries of Nathaniel P. Banks and letters to and from family members, which are in the collection, help weave the early family history web into a coherent story. Family history documents, land deeds, letters, diaries, marriage and occupational licenses such as a teacher's license and John W. Iddings Doctoral Licenses. Materials from The First National Bank, which include brochures, letters, ledgers, and newspaper articles, document its establishment and growth. The photographic collection dating from as early as 1850 offers a clear description of the families. The Banks family was comprised of farmers, bankers, and teachers. The Iddings were doctors. The Browns' occupations were within the agricultural and banking industries.

Through altruistic career choices, each earned the admiration of the community. Supporting artifacts attest to the integrity of the families. Newspaper articles including wedding announcements and obituaries, First National Bank brochures, and government related invitations declare the honesty, integrity, and trustworthiness of all three families.

THE COLLECTION-HISTORICAL AND CULTURAL SIGNIFICANCE

With records spanning 130 years, the collection has local, regional and national historical significance. The Civil War diaries and letters document correspondence during the wartime. The collection contains land deeds outlining town and state borders, and illustrating agriculture and commerce in the mid-1800s. It represents the settling of any small town across America, and marks the beginning of entrepreneurialism in the banking

industry. Additionally, it illustrates the fundamental structure set forth within County Government during the 19th Century.

Nathaniel P. Banks diaries from 1863 and 1865, describe his experience as a soldier in the Civil War. Banks wrote entries while on the battlefield. The entries document specific battles, the delivery of food to the troops, his posts or duties as a soldier watching guard, and his longing to be home. Banks wrote letters to his brother, Franny (?), and he often wrote back on the same letter. A ledger in the collection from Lake County marks the date of entry into and discharge from the Army of local and area soldiers, and often, the date of death.



Image 14. Some of the Civil War artifacts from the collection.

The First National Bank artifacts document the establishment and development of the bank, its importance and impact on the community and Crown Point's socio-economic growth. Newspaper articles trace the Bank's growth and are evidentiary of commerce and small business in America. They document the beginning of independent banking and follow a family owned business through 112 years of one family's ownership.

The collection is predominantly family photographs and supporting artifacts. The photographs document the growth of Crown Point, Lowell, Hobart and other communities in Lake County. Teacher's licenses and photographs of schools (buildings) and school children document the educational system in America. John Iddings' Licenses, photographs in the classroom, and professional photographs of his class from Northwest University are important, documenting the school of medicine in the late 1800s. Postcards and photographs of family houses and city streets visually depict architectural trends and

urban development spanning a period of more

than 100 years.

Additionally, because of its time period, the collection follows photographic processes as experimentation progressed and technology evolved, thus documenting the history of photography. The Brown Family Archive has at least one subject, Nathaniel P.





Image 15. Nathaniel P. Banks is the subject of three photographic processes.

Banks, who is believed to be depicted in three different photographic processes: a tintype, an albumen cabinet card and a gelatin silver portrait. This is unusual in any collection. (See appendix 1b.)

This collection promises to be an important addition at Lake County Historical Museum. It traces early settlers who became prominent members of their community and pioneers in government, education, medicine and the banking industry. Through the visual documentary of, thousands of photographs and other artifacts, the collection also illustrates the growth of Crown Point since its establishment in 1834.

THE COLLECTION-DESCRIPTION OF THE ARTIFACTS

With photographs dating from the mid1800s, the Brown Family Archive marks the invention of photography with two daguerreotypes. The latest photographs in the collection are chromogenic (color) prints from the 1980s. Connecting the two epochal periods in the history of photography is a variety of photographic processes reflective of the socioeconomic status of the family and the rise in popularity of the medium.

The Bramily The Bramily The Bramily in two daguerresty papers.

Paper epochal periods in the papers/but and the rise in Cyanoty Tintypes.

Photographs dating from the 1860s through the turn of the century are cased images, albumen and collodion, predominantly carte-devisites, cabinet cards and mounted photographs. This comprises approximately 1/3 of the collection.

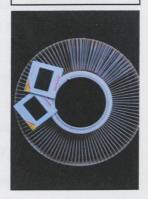
Photographs dating from the mid-to-late 1800s through the 1980s comprise the remainder of the collection and are primarily gelatin-silver

prints with a select number of platinum prints and chromogenic prints. The photo albums contain snapshots from the 1900s to the 1920s and are of the Iddings family. A carousel of 100 Kodachrome slides contains images of Peter Brown's children in 1967. Sizes of the prints vary dramatically; the smallest images are less than 1 inch by 1 inch, some of the largest images are 16½ inches by 11½ inches; the largest panorama is 42x18 inches. The majority of the earlier photographs are studio prints, professionally taken by area photography studios and mounted. Most of the later photographs are snapshots, excepting commercial photographs of the Brown sons in

THE BROWN	
FAMILY ARCHIVE	
Diaries	16
Paper ephemera (letters, etc.)	139
Papers/books/booklets	30
Family history records	44
Daguerreotypes	2
Ambrotypes	1
Cyanotypes	1
Tintypes	5
Panoramas	4
Framed images	4
Photo Albums	7
Scrapbooks-newspaper clippings/postcards	3
Newspaper clippings/postcards	181
Slides-Kodachrome	100
Photographic Prints	183
	5

Table 2. Itemization of the Collection

Image 16. Slides were very popular in the early 1960s.



their youth. Newspaper articles, postcards and announcements fill the three scrapbooks, which document the growth of The First National Bank and the three families over four

generations. There is little in the way of memorabilia, only a few Indiana State ribbons and political pins. There are no negatives, four framed photographs, and many postcards featuring family houses, The First National Bank, and streets of Lake County. Most of the photographs are loose. Some were in studio folders and a few were in glassine enclosures, unfortunately exhibiting signs of chemical deterioration.

THE COLLECTION-CONDITION OF THE ARTIFACTS

The collection of approximately 2,400 items was stored in Crown Point for approximately 50 years before shipment to Arizona in 1988, and finally California in 1998.

In no apparent order, the photographs appeared to have been stored in these same boxes for several decades. They were in no protective enclosures, gathered together in piles; the photographs were vulnerable to acidic exposure from the cardboard.

The condition of the artifacts ranges from poor to excellent. Many of the photographs are creased and the mounts broken or cracked, apparently due to improper storage and mishandling. The cases of the cased images are in poor condition while the actual images (daguerreotypes,



Images 17,18. Inevitably collections such as this will exhibit sign of improper storage.



ambrotypes and tintypes) are in good to poor condition. The pages of the diaries are in excellent condition, however the leather covers are tattered, torn and generally in poor condition. The gelatin-silver prints, especially the snapshots from the 1920s, suffer from an extreme amount of curling. Four panoramas are brittle and tightly rolled.

In regards to image fading, the prints are in good to fair condition. The photographs, which had been stored in glassine, exhibited a high degree of deterioration. Because of the rosin used in the sizing process of making glassine and because it often contained plasticizers, the glassine becomes acidified, discolored, and brittle⁸ over time. The acidified glassine reacts with residual silver halides in the emulsion of a photograph causing yellowing, spotting, and chemical deterioration.





Paper manufactures introduced rosin (derived from the turpentine found in pine trees) to the papermaking process in the 1830s to render paper insoluble, keeping inks from bleeding. The process involved adding aluminum sulfate to the rosin sizing, which resulted high acidic content in the paper, gradually causing image fade and other problems when in contact with photographs. Papers also inherently have problems with lignin content. Lignin yellows on exposure to light, and is reactive in the dark; it releases decomposition products such as peroxides that have an adverse reaction when in contact with photographs. Many of the photographs in this collection were housed in studio folders, apparently containing high levels of rosin and lignin, and exhibit far more image fade than loose photographs of the same sitting.

⁸ Lavédrine, A Guide to the Preventive Conservation of Photograph Collections, 45-46.

A Brief History of Photographic Processes

Historical societies, archives and museums frequently receive donations of this type. Before assigning intellectual order (making sense of the collection) and physical arrangement (organization and proper storage) to photographic collections, it is important to understand the medium and its evolution over the past 150 years. Familiarity with the history of photography can help date artifacts. A cursory knowledge of processes can help assess causes of photographic deterioration and determine storage and environmental recommendations.

Experimentation using chemicals and sunlight to fix an image started as early as the late 1700s. However, it was not until 1839, that Louis Daguerre officially announced the invention of photography to the public. The fixed image Daguerre described was a daguerreotype. A daguerreotype is very detailed mirror-like image on a piece of copper plated with a thin sheet of silver. Special daguerreotype cases made of wood, padded and covered in soft leather, with a sheet of glass over the daguerreotype and sealed were necessary to protect the image from exposure to oxygen. Exposure to oxygen causes the image to disappear in an extremely short amount of time. The Union case was an alternative case and design made of thermoplastic, a hard surface. Cased images are unique in that the emulsion layer lies on silver plated copper (daguerreotype) glass (ambrotype) or iron (tintype) supports and because of their cases, they are easy to recognize. Tintypes, although, were not always encased. They were very durable, resistant to fading and scratching, and for these reasons were a favorite for this reason during the Civil War. Soldiers carried tintypes in their pockets without causing damage to the image; they were also mailed very easily. In collections such as these, they are found in thin paper folders, in cases or alone, with very sharp edges and corners.



Image 22. On the left is a soft leather case holding a daguerreotype, the right image shows a Union Case, which is made of hard thermoplastic.





Image 23,24. Tintypes could be found alone, in paper folders or in cases.

The rise in photography's popularity was in part due to the ease with which photographs could be copied. As the process simplified, photographers established studios across America and Europe and by the 1890s, photography became available to the hobbyist. Additional information such as embossed studio names and logos on the photograph mounts and elaborate designs on the back can aid in dating the photograph and lend geographical information in relation to a family. The Brown Family Archive holds portraits from many studios in the Lake County Area including Crown Point, Hobart, Cedar Lake, Hammond, Chicago and more. Among the most common processes at this time were platinum prints, albumen (cabinet cards), collodion (carte-de-visites), and finally gelatin silver.

An epochal turn of events in the history of photography occurred in 1884, when George Eastman founded Eastman Dry Plate and Film Company in Rochester, New York. Eastman's company offered consumers roll film, cellulose nitrate¹⁰ coated with a gelatin silver emulsion, which was flexible film (negative), and far more convenient to use than glass negatives. In 1900, major changes occurred for a second time when Eastman announced the Brownie, which sold for \$1.00, making photography affordable to the

¹⁰ Cellulose nitrate, a highly flammable component, was gradually replaced by a cellulose acetate (non-flammable) base from 1920-1950. The Brown Family Archive and similar collections may not have negatives, because of warnings to throw out nitrate. "A Short Guide to Film Base Photographic Materials: Identification, Care, and Duplication," Northeast Document Conservation Center, http://www.nedcc.org/leaflets/nitrate.htm, (site updated May 2006: accessed June 19, 2006).

person of average income. Eastman founded the Eastman Kodak Company in 1892 bringing photography to millions around the world. Gelatin silver remained the predominant photographic process until the chromogenic (color) print was announced in the 1950s.

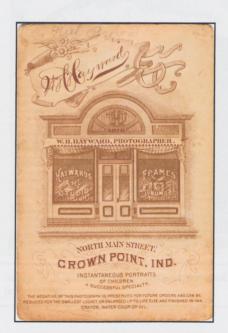
Most historic family collections include many of the 19th century processes mentioned earlier. Studio collections on the other hand, may additionally have negatives, in a variety of sizes and formats. Interestingly, the Brown Family Archive does not contain any negatives. This is most likely because the studios retained the negatives for reorders, risks were involved in storing nitrate, and as the collection passed through the generations, the family did not understand the need to keep snapshot negatives.

Although the Brown Family Archive contains photographs created as late as 1980, there are very few color prints in the collection. There are four professionally shot photographs of J. Paul Brown and Peter Brown presumably for The First National Bank. There are less than a 100 color snapshots from the 1960s and only 100 Kodachrome slides, which is unusual for that time period.

The late 1980s witnessed advancements in digital technology, introducing digital photography to the masses in 1995. While the Brown Family Archive does not contain any digital images, the work on this project will result in digital facsimiles of the original photographs. Archivists and institutions must prepare for collections that contain digitally born images (shot on a digital camera) or digital copies (scanned). Methods for storage, digital archiving and digitizing collections will differ from those of traditional photography. Rochester Institute of Technology/Image Permanence Institute in Rochester, New York and Wilhelm Research Institute in Grinnell, Iowa are two organizations conducting important tests on the archival longevity of ink-jet, laser printed and photocopied *photographic* images and making suggestions for the best housing of these prints.



Images 25,26,27. Common 19th Century photographic processes: platinum print, albumen and collodion.







Images 28,29,30. Elaborate logos adorned photograph mounts and folders.

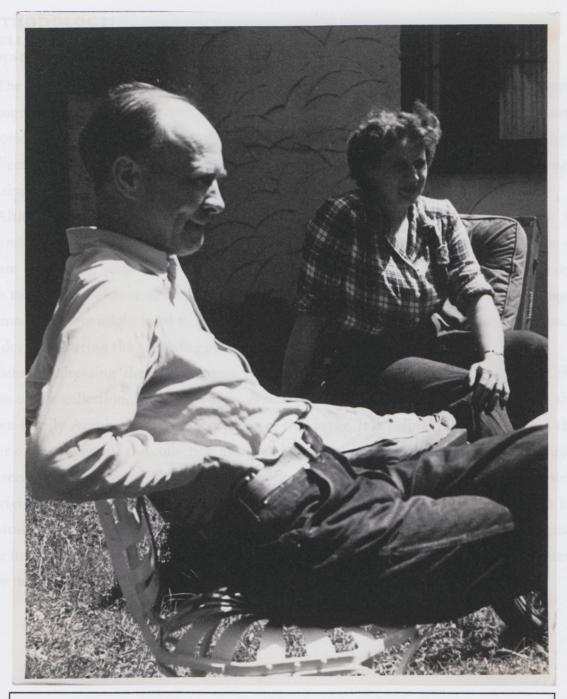


Image 31. Gelatin silver prints dominated until the 1960s when color photography overcame its popularity.

METHODOLOGY:

Intellectual Order, Cataloguing, Digitizing, Database Input and Management, Storage, Housing, Physical Arrangement

The ultimate result of this project is physical organization, accessibility (original photographs, digital copies and a virtual presence) and storage in the Lake County Historical Museum. To achieve these goals, I explore seven stages of methodology: Intellectual Order, Cataloguing, Digitizing, Database Input and Management, Storage, Housing, Physical Arrangement.

Although I recommend approaching each stage sequentially, it is important to understand that each task intertwines with the others. Due to the inherent qualities of private collections, projects of this scope and size may not flow methodically from one stage to the next. That is to say, it is not necessarily a linear step-by-step process. Stages assumed complete might need to be revisited and modified to conform to new information that develops during the archiving process.

Before addressing the seven stages I have outlined in this paper, first consider the origin of the collection, in other words, establish its provenance as I have done with the Brown Family Archive in previous sections of this paper. It is helpful, to find out from the donor or the owner of the collection as much information about the collection as possible. The second consideration is to decipher whether the collection is in any specific physical or *original* order. A preliminary inventory of the collection will offer insight as to its physical arrangement. The reasons for establishing provenance and maintaining original order involve the cumulative informational value of the items themselves and the context of the items within a group, ¹¹ thus beginning the stage of assigning intellectual order.

¹¹ Ritzenhaler, Munoff and Long, Archives & Manuscripts, 72-74.

METHODOLOGY: OVERVIEW INTELLECTUAL ORDER

Assigning intellectual order simply means understanding the essence of a collection. One can achieve this by looking at the materials, reading accompanying information, researching the families, the businesses and the cities involved. Reading letters and the writing on the photographs or photo album pages offers information about the family and the artifacts. Interviewing family members explains convoluted family histories and adds dimension to the meaning of what the photographs represent. Conducting a questionnaire of the collection brings one's understanding to a new level. (See appendix 3.) It is important to keep a log of information gathered, noting dates, family relations, events, size and quantity of photographs, condition of the photographs and photographic processes. In Chapter 4 of Administration of Photographic Collections, Gerald Munoff refers to this as a preliminary inventory. Munoff advises to resist the urge to begin conservation efforts, cataloguing or physical arrangement at this time, but rather to take one's time working with the collection, gaining an understanding of it.¹² It is helpful to use a worksheet to assess the collection, such as the Preliminary Collection Survey Worksheet¹³, which can be customized to fit the needs of an institutional or individual collection. (See appendix 4.)

METHODOLOGY: OVERVIEW CATALOGUING

A numbering or cataloguing system will uniquely identify the collection as a whole, as groups and each artifact individually. The cataloguing system aids in physical arrangement, accessibility, itemization and inventory, and collections management (stewardship¹⁴ of the collection). It also assists in digital file retrieval, digital archiving and database management. Cataloguing means assigning each individual photograph, paper, and artifact a unique number. Additionally, it includes describing the object or image, transcribing anything written on the photograph, and documenting the location where artifact will be stored.

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¹² Ritzenhaler, Munoff and Long, Archives & Manuscripts, 80.

¹³ Ibid

¹⁴ Stewardship of collections entails the highest of public trust and carries with it the presumption of rightful ownership, permanence, care, documentation, accessibility, and responsible disposal. "Code of Ethics for Museums: Collections," American Association of Museums, 2000, http://www.aam-us.org/museumresources/ethics/coe.cfm, (accessed July 27, 2006).

Over the last ten to twenty years, consortiums worldwide have met to discuss standards for cataloguing systems based on best practice in museums. A comprehensive list of resources including a noteworthy history of standards is on The Society of American Archivist (SAA) website.¹⁵ Museums use a form called an accession form to catalogue items that come into their institutions. An item-level accession form ensures that all items are documented with the same information and detail, bringing uniformity to the documentation of each piece thereby ascertaining intellectual order of the entire collection. An accession form can be as simple or as detailed as necessary. Recording extensive information during the cataloguing process will cut down on the need to physically pull the original photograph at a later date and allow researchers to work from the text record in the early stages of their work. Cumulative information gathered during the cataloguing stage aids in the minimization of handling of the photograph, consequently minimizing the risk of damage. Once a collection has been processed, a means to access information on the photograph is created. Referred to as "finding aids," this was generally in the form of notebooks, binders or index cards, until recently. Most institutions now default to a database, although a hard copy is strongly recommended as a back up. By accessing finding aids, researchers gain preliminary information about the object, determining if the original document actually needs to be retrieved from its storage location.

Ideally, it is best to physically arrange a collection before assigning numbers. "The simplest way [to develop a numbering system] is to number the prints in sequence after they are arranged, using an *accession number* followed by the item number." Museum registrars often use the accession number as the root of the catalogue number. An accession number is a unique number within an institution that is assigned to anything accepted into that museum; it usually includes the year the item was accessioned and [generally] a sequential number. With private collections, such a sophisticated system may not suit the purpose of the collection. It may be simplified to include only initials that uniquely connect the collection with its owner; for example, I used JPB-FAM-xxxx to identify the Brown Family Archive, identifying James-Paul Brown as the owner, followed by a categorical number, followed by an item number.

¹⁶Ritzenhaler, Munoff and Long, Archives & Manuscripts, 84.

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¹⁵ Victoria Irons Walch and Marion Matters, "Standards for Archival Description: a Handbook," The Society of American Archivists, 1994, http://www.archivists.org/catalog/stds99/index.html, (accessed July 26, 2006).

The catalogue number *must* correspond with an image's digital file number, aiding in digital retrieval and database management. It is therefore, important to analyze the parameters of the digital stage before assigning permanent catalogue numbers. Designing a blueprint for the database simultaneously with a cataloguing system will avoid confusion later.

METHODOLOGY: OVERVIEW DIGITIZING

There are many advantages to creating a digital reproduction of a photograph, however it can be an expensive, arduous and time-consuming process. One must consider costs involved beyond that of actual scanning such as conservation of originals, cataloguing of originals and surrogates, photography (of oversized images or objects), salaries, training and investment in the technical infrastructure to facilitate management, preservation and access.¹⁷ Strategic planning, the cost of long-term digital archiving practices and migration (updating to digital formats as they develop) are areas of further concern.

A digitized collection has many advantages. It can make the *images* accessible to millions via the World Wide Web. With technological developments in databases and the standardization of cataloguing procedures, digitizing a collection helps immensely in these stages. It restricts the amount of handling of original objects, diminishing the risk of further damage, and it facilitates database management, providing thumbnails for use in the database and more. A sound guideline for scanning is essential. Decisions on scanner equipment, procedures for scanning and saving master files should be in place before beginning this stage of the project. Cornell University conducted a survey of scanning procedures implemented by representative institutions in the field, summarized in their Table 3-1 *Representative Institutional Requirements for Conversion*. ¹⁸ The chart can aid in establishing important policies; links on the website offer more detailed information for each institution. (See appendix 5).

To attempt a *sophisticated* digital conversion of a small family collection may be unnecessary, but as standards for cataloguing are written, so are standards for digitizing collections. Only a few years ago, archivists were scrambling for the "right way" to scan and digitally archive photographs. Several books and guidelines written by collections

¹⁷ Howard Besser, *Introduction to Imaging* (Los Angeles: Getty Research Institute, 2003), 31-32.

¹⁸ Cornell University Library, "Moving Theory in Practice: Digital Imaging Tutorial," *Table 3-1*, Cornell University Library/Research Department, 2000-2002, http://www.library.cornell.edu/preservation/tutorial/conversion/table3-1.html (accessed 2005).

have now been published to address this issue. Two examples are Howard Besser's Introduction to Imaging published by the Getty Research Institute in Los Angeles, California and NEDCC's, Handbook for Digital Projects: A Management Tool for Preservation and Access. 19 Furthermore, several institutions that have undertaken large digitization projects over the past five years have published their procedures and results online. 20 These resources are enormously helpful when planning such a project.

METHODOLOGY: OVERVIEW DATABASE INPUT AND MANAGEMENT

Researching database software can be an overwhelming and difficult task. The programming architecture used in software design is complex and can be complicated for anyone not trained in computer science. Once a software program is decided upon, the hardware specification may be just as difficult to decipher. It is important to access your needs as you research on databases. Very sophisticated database programs are now available, some which are custom designed for museums. The Canadian Heritage Information Network is a good resource for researching what database will best suit the needs of an institution or collection. It offers an online training course in Collections Management Software Selection.²¹ The first paragraph under *Planning* states: *Implementing a computer system cannot happen haphazardly. Detailed plans must be properly executed or the system will not work the way it was intended.* It is important to define a clear assessment of goals desired and analyze features before making a purchase. Most databases allow for an infinite number of customizable fields, allowing for endless individual specifications. Initiatives to standardize metadata (detailed information) are well underway as one result of sophisticated database capabilities.

Databases organize images and permit precise or complex keyword and field searches. Searching for a particular image becomes a task for the computer rather than for the

¹⁹ Maxine K. Sitts, ed., "Handbook for Digital Projects: A Management Tool for Preservation and Access," Northeast Document Conservation Center, 2000, http://www.nedcc.org/digital/dman.pdf, (accessed July 26, 2006).

²⁰ Colorado Digitization Project. "General Guidelines for Scanning," Collaborative Digitization Program, 2002, http://www.cdpheritage.org, (accessed December 2004).

²¹ Canadian Heritage Information Network. "Collections Management Software Review: Planning for an Inhouse System," 2003,

http://www.chin.gc.ca/English/Collections_Management/Software_Review/planning.html#collect, (accessed July 26, 2006; last modified: April 19, 2004).

researcher or archivist. It eliminates the need to rifle through fragile objects, which invites the probability of further damage to original artifacts.

Since databases are sophisticated and relatively easy to use, the cataloguing, digitizing and database stages can be done concurrently. It is imperative to print out a hard copy of all information in the database. This hard copy "finding aid" must be updated frequently, and stored in a safe and easily retrievable place for researchers and others needing access to the collection. Sidestepping the handwritten or typed cataloguing process without a hardcopy (printed) back-up of the database can result in a catastrophic loss of information. Additionally, a digital back-up system is essential. An external hard drive is the best option at this time. CD-Roms and DVD discs are more affordable however; one must consider the questionable lifespan of this media as well as the accessibility of equipment on which to read the data in the future.

METHODOLOGY: OVERVIEW STORAGE

The storage area should be large enough to accommodate the collection without forcing items on the shelves. The area should be clear of all dirt, debris, insects and exposure to harmful or gaseous substances often present near office equipment and air conditioning vents. Collections should be stored in cool temperatures to minimize chemical reactivity and dry relative humidity (RH) levels.

All photographic materials are sensitive to high, low, and fluctuating relative humidity (RH), which is a measure of how saturated the air is with moisture.²² High temperatures coupled with high humidity cause chemical activity in photographic materials resulting in the fading of the image. High humidity causes saturation in the emulsion, which allows mold spores to cultivate. Low humidity causes the photographic support and the emulsion to fissure, buckle, and crack. Additionally, an assessment of the storage area is essential before ordering archival supplies. The dimensions of a cabinet or closet may dictate the size of boxes ordered.

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²² The Library of Congress, Care, Handling, and Storage of Photographs Information Leaflet, "Introduction," 2006, http://www.loc.gov/preserv/care/photolea.html, (accessed July 26, 2006 from Library of Congress Preservation; originally published by: IFLA Core Programme Preservation and Conservation International Federation of Library Associations and Institutions.

METHODOLOGY: OVERVIEW Housing

Lignin-containing wood-pulp papers, alum-rosin size, and fiber-degrading chlorine bleaches have all contributed to the sharp decline in the stability of most papers made during the past 150 years – a problem now plaguing libraries and archives the world over.²³ Henry Wilhelm, 1993 Henry Wilhelm, 1993

ANSI (American National Standards Institute) issued a publication in 1984 (Standard pH 1.53-1984, Processed Films, Plates, and papers - Filing Enclosures and Containers for Storage) establishing standards for papers used in the housing and storage of photographs. It states that materials should be acid-free, meaning the pH (potential hydrogen) level is 7, or neutral, containing no acids or alkali. The quality of archival materials is instrumental when choosing supplies. Not all products marketed as "archival" or "acid-free" meet the requirements of the ANSI Standards. 24 It is wise to consult with a respected source in the field of conservation. Materials purchased should come from a reputable company and have passed the Photographic Activity Test displaying the PAT seal.²⁵ Conservation standards have been in place for decades; research in this area has escalated over the past twenty to thirty years. Northeast Document Conservation Center (NEDCC) was founded in 1973 in response to growing alarm about the monumental scope of the paper deterioration problem facing collections-holding institutions in New England.26 It expanded in 1990, and has been instrumental in setting conservation standards. NEDCC provides conservation services in both traditional and digital realms for photographic collection. There are many resources online, which offer reports, guidelines and services for best practices in libraries, museums and archives worldwide.

Polyethylene, polypropylene and polyester sleeves of various thicknesses (measured in millimeters) are chemically inert and recommended for sleeving individual photographs. Cost, visibility (polyethylene is clearer than polyester, for example) and personal preference play a role in enclosure selection.

Before ordering supplies, it is helpful to conduct a detailed inventory of the collection, ideally entering all information in a database. The measurement field of the database

²³ Wilhelm and Brower, The Permanence and Care, 467.

²⁴ Reilly, Care and Identification, 92.

²⁵ Image Permanence Institute, "The Photographic Activity Test," 2006,

http://www.imagepermanenceinstitute.org/shtml_sub/srv_pat.shtml, (accessed on July 5, 2006)

²⁶ Northeast Document Conservation Center, "Mission and History," 1996, (accessed July 26, 2006; last modified 2005).

enables the calculation of supplies needed. Most supplies are available in common sizes and supplies for making custom-made housings are available as well.

METHODOLOGY: OVERVIEW PHYSICAL ARRANGEMENT

Physical *re*arrangement of the collection may be necessary, if the original order is not a concern. If the original order is a concern, it is best to preserve that order intellectually, physically and digitally. However, often due to space and financial constraints this is highly impractical. In the case of rearranging a collection when the original order is a concern, it is imperative to take notes documenting the original order of the collection and that a database supports that documentation.

In the course of conducting the six previous stages of this methodology, deliberation given to the final *physical* arrangement of the collection is important. The collective significance of the collection as well as the shapes or sizes of the artifacts determine the physical arrangement of a collection. The meaning of the collection determines how it is grouped-by subject, geographically, chronologically or some other way that makes sense to the recently assigned intellectual order. Special circumstances, with implementation of cross-referencing, may be necessary for oversized items such as panoramas or framed images. Accessibility of the photographs is of concern. It is important to store photographs that have an anticipated necessity of frequent access in a convenient location for retrieval.

It is apparent why the stages of assigning intellectual and physical arrangement to a collection are interdependent. Approaching the stages in order *and* simultaneously is challenging yet fundamental for the success of the project.

METHODOLOGY: A CASE STUDY INTELLECTUAL ORDER - RESEARCH

As I worked with the collection, I read postcard inscriptions, letters, captions on photographs, and diary entries. I made connections between images and family members. I employed photographs to verify information found in family history documents and newspaper articles. I analyzed subjects in the photographs and photographic processes to aid in the identifying process. (See appendix 2b.)

While serving an internship at LCHM, Mr. Woods directed me to references in the museum and the ability of Mr. McFadden (LCHM's curator) to put a name to a face in the photograph was impressive. I interviewed community members through the Lake County Historical Society to gain further information on the history of Crown Point and the role of the Brown, Iddings and Banks families in that community. I sought the help of local genealogist, Marlene Polster, who offered a significant amount of family history information. I sought information from the Lowell Public Library reference department.²⁷

During the summer of 2006, I met with Bill Brown in Prescott, Arizona. I took over 600 digital images for him to identify and I videotaped the session. I also met with James-Paul Brown in Carpenteria, California (just south of Santa Barbara) and implemented the same interviewing techniques. I asked each of the brothers about the people in the photographs, his childhood in Crown Point, his father and The First National Bank, where they had both worked.

Documentation in the collection as well as outside research provided supporting information about the families, allowing me to develop a comprehensive understanding of the collection. This collective knowledge defines its intellectual order.

METHODOLOGY: A CASE STUDY INTELLECTUAL ORDER – ASSIGNMENT

Despite the fact that I refer to the collection as The Brown Family Archive and James-Paul Brown owns the collection, the earlier photographs in the collection hail predominantly from the Banks and Iddings families. As previously mentioned, the collection traveled from the Banks to the Iddings to the Brown families. The Banks' relics contain mostly Civil War Era diaries, letters, land deeds and some photographs. The photographs depicting the Iddings family date from 1870s through the 1930s, and represent photography's rise in popularity and the rise in socio-economic status of the

²⁷ Darlene Rigg and Beverly Schoon, Lowell Public Library, http://www.lowellpl.lib.in.us.

Banks family. The Brown family photographs date from 1930s through the 1980s signifying the popularity of the snapshot, commercial photography and the prominence of the family, by way of photographs of vacations, retreats, and The First National Bank.

The level of understanding I gained through administering this stage of the project, laid the foundation of intellectual order; this intellectual order defined my purpose for the collection. Decisions regarding the remaining stages of the collection relied on the purpose. For instance, realizing that the collection is comprised of three categories (Civil War, First National Bank and Family) with one dominating (the family) enabled me to make the decision to divide the collection into those categories (physical arrangement). Additionally, consulting with James-Paul Brown, working with Mr. Woods and LCHM, made my decision to store the collection at LCHM, in accordance with its mission statement (storage). Furthermore, realizing that three families are represented in the collection and that their descendents may access it at the museum made my decision to split the family section in to the three respective boxes (intellectual & physical arrangement.)

METHODOLOGY: A CASE STUDY CATALOGUING

I decided to divide the collection into three sections therefore, I designed the cataloguing system to reflect that decision.

Following best practice examples, I identified the collection not to an institution but rather to its owner, using James-Paul Brown's initials: JPB. (The collection will be placed on *long-term loan* at Lake County Historical Museum.) I then used an abbreviated form of each category: CW for Civil War, BANK for First National Bank, and FAM for family. This kept the items separated within the cataloguing system just as they are physically and as they will be in the database. To avoid confusion in the way computers list file numbers, I prefaced the catalogue number with three zeros; the first item was numbered 0001 rather than 1. I use JPB-ALBUM as the identifier for the photograph albums; I will use JPB-ALBUM for scrapbooks as well. The album numbering system is quite simple. The first album is JPB-ALBUM-0001. The first page in the first album is JPB-ALBUM-0001_1. The first image on the first page is ALBUM-0001_1.

I attempted to use this same method for same sitting photographs. For instance, many studio portraits are from the same sitting only in a different pose. Using this system, these photographs would be labeled as follows: JPB-FAM-0021, JPB-FAM-0021-1, JPB-

FAM-0021-2. To number duplicate photographs, I used a lettering sequence. JPB-FAM-0022_a, JPB-FAM-0022_b, JPB-FAM-0022_c would mean there are three identical prints of one photograph.

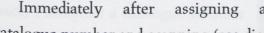
With a collection of this scale, the decision becomes whether to catalogue and database the articles arbitrarily, or to physically sort through the collection and then proceed with assigning catalogue numbers, which can take much longer. Because the collection had no original order, and I wanted to separate the categories, families and pair like photographs, I decided to physically arrange the collection before assigning catalogue numbers.

A museum or archivist might not have this affordability. Collections may be larger or may be a low-priority project, in which case, putting items through each stage of the process, cataloguing, databasing and properly housing the artifacts takes priority over physically arranging the collection as a whole.

Using this cataloguing system does not allow the determination of quantity of

photographs or items in an entire collection by merely using the final catalogue number. One way to determine the total amount of photographs is to keep track of the number of items during the archiving process. A database will automatically generate a *record number* for each item entered. This number will provide the number of records

but not the number of total individual items, since some items such as diaries and albums have multiple *record* entries for one root item. By using a code system, one can search how many photographs, postcards, diaries, letters, etc. are in the collection. (See databasing section.)





Images 32,33. Using the proper archiving tools is essential to upholding best practices in preservation.



catalogue number and scanning (see digitization section) any one item, I labeled it. I used a #2 pencil, recommended for its soft graphite, which does not cause damage to the photographic support or the emulsion on the reverse side. I gently wrote the catalogue number in the lower right hand side of each item. Some of the mounts were black or dark,

in which case I used a #11 white graphite pencil. As I assigned catalogue numbers and labeled the artifacts, I kept a handwritten list of the catalogue number and a brief description of the image. This proved useful in keeping track of the catalogue numbers and the relationship between image and number. Other cataloguing considerations came into account when there was writing on the photograph, the photograph was framed or mounted or in a photography studio folder. I discuss these considerations in the next section.

METHODOLOGY: A CASE STUDY DIGITIZATION

Viewing a digital facsimile is not the same as holding a photograph in one's hand; therefore, preserving the *integrity* of the photograph during the scanning is important. With each scan, I maintained the integrity of each photograph by including the support, enclosure and any other elements that I felt were important. I scanned the back of a photograph if it had writing on it. If it was mounted, I scanned it with the mount and as the photograph alone. Many photographs were

in photography studio folders. I scanned the front if it displayed that studio's information. If the inside of the folder had writing

on it, I scanned and saved the writing as a separate file. Each scan produces a digital file, which meant devising a cataloguing system for each scan of the same root photograph. I used the same system as the Photographic Collections Archive at George Eastman House. If a photograph had writing on the back, I assigned a catalogue number

to the root photograph, and used the same catalogue number followed by (v) to indicate verso (reverse). For

(r)	RECTO
(v)	VERSION
(m)	MOUNT
(f)	FOLDER
(ff)	FOLDER FRONT
(fi)	FOLDER INSIDE
(fb)	FOLDER BACK
(e)	ENCLOSURE

Table 3. Digital File Codes





Images 34,35. When scanning photographs, it is important to create a digital facsimile that preserves the *essence* of the photograph.

instance, the front of a photograph with writing on the back would be JPB-FAM-0021, the back JPB-FAM-0021(v). (If there was writing on the inside of a folder or the back of a photograph, I scanned only that area; scanning the entire surface was unnecessary, took much longer and created a larger file size. In the event of a mounted photograph, I differentiated the two digital files by putting an "m" behind the initial catalogue number, JPB-FAM-0147, JPB-FAM-0147(m). It is important to remember that each digital file must correspond with an actual tangible element. Therefore, on the back lower right side of each item, I wrote all of the corresponding catalogue and digital file numbers separated by commas. For instance, JPB-FAM-0147, JPB-FAM-0147(m). As scanning progressed, I found myself needing to create more abbreviations. I ran into trouble when I came across a framed photograph, as I had already been designated "f" for Folder. I solved this problem by using "e" for enclosure.

Since I was introduced to this coding system during my studies at George Eastman House, I used it. However, systems for abbreviations have been issued by SAA's *Standards of Archival Description*²⁸, *Rules of Archival Description* devised by the Canadian Council of Archives²⁹ and other institutions. These standards are well researched, work well with complex collections and within institutional settings with staff and resources to implement them. However, they are unwieldy for smaller museums and, in the case of LCHM, proved to be impractical due to a lack of staff, funding and technical infrastructure.

Digitizing to the highest possible level of quality practical with the given constraints and priorities is the best method of "future-proofing" images to the furthest extent possible against advances in imaging and delivery technology.³⁰

Dots per inch (dpi) is the measurement used for scanning images. Technically, the digitally correct term is pixels per inch or ppi, dots per inch is a term borrowed from the printing industry and used more frequently. I scanned all images at 1200dpi. Although this resulted in larger file sizes, it leaves me the option of using the images for printed materials measuring up to four times the area size of the image without an adverse

 $^{^{28}}$ Victoria Irons Walch and Marion Matters, "Standards for Archival Description: a Handbook."

²⁹ Canandian Committee on Archival Description, "Rules for Archival Description," 2003, http://www.cdncouncilarchives.ca/archdesrules.html, (accessed on July 26, 2006).

pixilation effect. I made this decision in anticipation of using the images in an exhibition or for signage later.

To achieve a high quality scan, a scanner's *optical resolution* must be able to produce the desired resolution. Most consumer scanners are capable of a comparatively high *optimized* dpi and much lower *optical* dpi. An optimized scan uses the scanner's software to interpolate pixels (creating like pixels based on surrounding pixels). Optical dpi means the lenses and mechanics of the scanner enable digital conversion of *actual* pixels during the scan producing a truer image. Ideally, a "pro-sumer" scanner capable of optical scans of at least 1200dpi is recommended. I used an Epson Expression 1680 with 16-bit (64K gray levels) / 48-bit color capabilities. Its optical resolution capability is 1600 dpi x 3200 dpi with an optimized or interpolated resolution of 13600 dpi x 18720 dpi. I scanned all images in color to capture the nuances of blacks, whites and grays in black and white photographs.



Image 36. Scanning images at a high optical resolution allows for future uses, minimizing access to original documents.

I saved all files as TIFFs (tagged image file format). A TIFF is a non-compressed format, which preserves the digital information (*lossless* format) without loss of pixels each time it is open. JPEGs (Joint Photographic Experts Group) are a *lossy* format, a compressed file which discards information each time it is opened.

Before scanning, I gently brushed the dust from each photograph with a soft brush, made sure no debris was on the scanner bed, and laid it on the clean glass. Oversized items were set aside for copy-stand photographic captures. As discussed in the previous section, the digital file name corresponds exactly with the catalogue numbers.

Methodology: A CASE STUDY DATABASE MANAGEMENT

There are many aspects to consider before purchasing database software. I used the Project Planning Tutorial downloaded from the FileMaker Pro website,³¹ to conduct a detailed analysis of my purpose for the database. That exercise, familiarity with databases, previous research and anticipating my needs led me to ask myself the questions listed in Table 4.32

Similar exercises and analyses are available through many online resources; they are designed specifically for museum personnel researching databases. Databases designed for museums feature sophisticated architecture with complex infrastructure to serve large collections and may be superfluous for the private collection. After discussions with Bruce Woods and months of researching various databases, I decided to use FileMaker Pro 8. At the time, LCHM did not have a database management system in place, however within the last month (July 2006) they purchased PastPerfect[™], software for museum collections.³³ Earlier, I had conducted extensive research on this software; it is not MAC compatible.

FileMaker Pro 8 suited my purpose. Its level user-friendliness is impressive, field customization is limitless, it features an ability to place images and video clips, and it is MAC compatible.

I customized the database to include over 40 fields, all of which are searchable, some of which are drop-down menus, and most allow for the entering of an infinite amount of metadata. Each record contains a thumbnail of the corresponding image. I allowed for multiple image boxes for each record. For example, if catalogue # JPB-FAM-0021 has writing on the back of the photograph, catalogue # JPB-FAM-0021(v) is viewable on the same field as JPB-FAM-0021, so the user can see both thumbnail images on one screen without having to toggle back and forth.

A database helps in many areas. One area is ascertaining what size housing materials are needed. A search in the size field for 5 X 7 will result in the number of images that are 5 X 7 for instance, informing the archivist of the quantity of enclosures or sleeves to order. A database also keeps track of inventory, how many items are in a collection, and how many of what items are in a collection, for example specific photographic processes.

FileMaker, Inc., "FileMaker Pro 7 User Guide," Planning a Database, 35, 1995-2004, http://filemaker.com/downloads/pdf/fm7_ug.pdf, (accessed July 2005).
 Taylor Whitney, "Preparing a Database for a Photographic Collection," 2005.

Pastime Software, PastPerfect Museum Software, 2005, http://www.museumsoftware.com.

1.	What purpose will it serve?	9.	Does the database accommodate
			images and video clips?
2.	Who will be using the collection?	10.	What are the computer
			hardware and memory
			requirements?
3.	How is the collection arranged,	11.	Is any supporting software
	stored and accessed?		necessary?
4.	What is the size of the collection?	12.	How much will the application
			cost?
5.	Equally important is the analysis	13.	Is there technical support
	of a database.		available?
6.	How user-friendly is the database?	14.	What other institutions or
			businesses are using this
			application?
7.	Can it be customized and to what	15.	Is the application cross-
	extent?		platform?
8.	Is it searchable? Is it searchable by	16.	Will the database be interactive
	date, by name, by catalogue		with other applications such as
	number, by keyword?		web-based programs?

Table 4. Questionnaire for Database Planning

CODE LEGEND

CODE ELGEND				
CODE	DESCRIPTION (OF CODE)			
PHOTO	Photographs (paper)			
DAG	Daguerreotype			
AMBRO	Ambrotype			
TIN	Tintype			
ART	Artifacts i.e., pins, ribbons, bookmarks, etc.			
LETTER	Letters and corresponding envelopes			
DIARY	Diaries			
BOOK	Books, pamphlets, booklets, bank logs, civil war logs			
PAPER	PAPER Posters, invitations, brochures, income statements			
ALBUM	Photo albums			
SCRAP	Scrapbooks w/ newspaper articles, postcards, some photos			
NEWS	NEWS Newspapers, newspaper articles (not in scrapbooks)			

Table 5. Description codes for Database Input

Catalogue Number	JPB-FAM-01014, 0104v)	Code	РНОТО			
Thumbnail Recto		Thumbnail Verso	Sorolly B. Gedenge Swell, Indiana			
Category Family	was to easy a service of					
Title	DOROTHY IDDINGS					
Date		Photographic Process	Gelatin Silver			
Image Size 3 X 4.5	Mount Size N/A	Folder Size N/A	a yaza A			
Duplicates	O Yes No					
Number of Duplicates	N/A					
Same Sitting	● Yes ONo	es the files to 7				
Number of Same Sitting	5					
Caption Recto						
Caption Verso						
Subject Name	DOROTHY IDDINGS					
Subject Name written on Phot		tat degraph to				
Birthdate of Subject(s)						
Birthdate of Subject						
Family	Iddings					
Relation to John Brown	Sister-in-law					
Other Family Relations	Sister of Jean Iddings					
Family History						
Studio						
Description	Formal Studio Portrait					
Promo Caption						
Keywords	1920s, Dorothy, Iddings, Aur	nt, Formal,				
Condition						
Comments	Silvering-out					
Date Moved						
Previous Location						
Permanent Location						

Image 33. The Brown Family Archive features fields customized to enable complex searches.

In order to calculate specified inventories, I devised a code system to enable such searches. I designated a field: CODE. I gave each item its own code, enabling item searches. For example, with this field, I can conduct a search of diaries, and the results will inform me of 17 diaries in the collection. Because I have a category field, I can also conduct a search of diaries only from the Civil War category of the collection. I can conduct a search for all records except letters, and the results will indicate that total. Below is the Code Legend as devised for The Brown Family Archive. (See table 5.) Again, there are standardized codes for this level of itemization in the museum setting.

It is unnecessary to use hi-resolution images for viewing on a monitor because screens are calibrated to read images at a much lower resolution such as 72dpi. Also, the height and width of an image only need be big enough to reference, called a thumbnail image. Not only is using large files unnecessary, it can overload the database and impeding the image loading process. Therefore, I downsized the files to 72dpi and 2.5 inches wide for input into the database. (For continuity, if the original photograph was smaller than 2.5 inches wide, I enlarged it, the master file scanned at 1200 dpi allows for enlargements, especially when lowering the resolution to that degree). I digitally archived the lower resolution images in a separate folder and tagged the file name with the dpi digit: JPB-FAM-0147_300dpi.tiff, JPB-FAM-0147(m)_72dpi.tiff, for example.

When I deposit the collection and the digital archive at Lake County Historical Museum, the files will have to be imported into an Excel document before they are importable into PastPerfect $^{\text{M}}$.

Methodology: A Case Study Housing

I covered an extensive amount of information regarding materials for housing in the overview. To reiterate, it is important to use quality materials, which have passed the PAT.

Since I do not have a lot of experience working with archival materials, I could not easily decide which supplier to use. Therefore, I conducted a survey and requested samples materials from reputable archival supply companies. I consulted David Wooters, Archivist at George Eastman House, on products necessary for archiving. He suggested a number of reputable companies in the archival supply industry. This was a good exercise as I became familiar with archival products by perusing their catalogues.



Image 38. There are now several reputable archive materials companies as opposed to only a few years ago.

Most of the catalogues were directed toward professional archivists, however, a few targeted photographers and amateur scrapbookers. I particularly liked the 2005 Conservation Resources Catalogue³⁴ as it began with a 10 pages of scholarly essay on archival papers including chemistry, acid deterioration and more. My requests unfortunately did not result in the receipt of enough samples to use for my case study.

³⁴ Conservation Resources. Silver Anniversary Issue: 2005 Catalogue: Archive Library & Museum Preservation "Archival Papers," (Va. Conservation Resources International, LLC., 2005), v-ix.

Time became a factor. Consequently, I used two companies local to Rochester, Lumiére and Archival Methods. Both companies are reputable in the field and the staff was very helpful.

Working with the supplies proved more challenging than I had initially anticipated, although many enclosure sizes are available, one can always expect something that just does not fit. In my case, I did not purchase the right sizes. I customized a few existing enclosures to fit a mounted photograph, and made an enclosure for a photo album from scratch. Jennifer made six enclosures for the albums she scanned. The most important concern in making enclosures is to seal the artifact from hazardous elements such as dirt, debris and air.

Often, conservation efforts are in order. In this collection, all of the cased images necessitate at least minimal if not major conservation efforts. The inside cushion of a daguerreotype case fell out every time I opened it. This can potentially cause further damage, so I decided to address the issue. I enlisted Jiuan-Iiuan Chang from George Eastman House Conservation to help me. We glued the cushion back in using pH neutral, PVA (Polyvinyl acetate) glue and applied pressure using small vice grips for about 30 minutes until it dried. I do not recommend conservation efforts without the guidance of a professional conservator.

I used the same daguerreotype for a school project the first year of my studies in Toronto. Professor and daguerreotypist, Mike Robinson, demonstrated the procedure for cleaning the glass that resulted in a clearer image. (See Appendix 1a.)



Image 39. Consult a conservator before attempting any conservation efforts.

Many items in the collection require conservation efforts, such as broken mounts, broken cases and hinges, cracked photographs and tightly wound panoramas. At this time, I have carefully placed them in archival containers. I will address their conservation issues as I move the project into the next level of completion.



Image 40. I was successful in getting some samples, however two local stores, Archival Methods and Lumiére Photo, were very helpful in the end.

Methodology: A Case Study Storage

For several reasons, I decided to store the collection at Lake County Historical Museum. The decision was a compromise, placing emphasis on the best *location* for the collection above the best *environment*. Storing the collection at LCHM amalgamates it with other Brown, Iddings & Banks family and First National Bank artifacts, photographs and supporting documents already in the museum. It makes the collection accessible to Crown Point and the surrounding area. Furthermore, placing the collection at LCHM fits well within its mission statement, to *collect, preserve, and display the history of the county, its pioneers and early settlers.*³⁵

The environmental conditions are not ideal. The temperature in the museum fluctuates from 48° F (8.8° C) average in the winter to 80° F (26.6° C) average in the summer, which is certainly not ideal. The average daily relative humidity in Crown Point is 68.5%; however, the walls are made of foot thick brick with cement stucco and covered in dry wall, which essentially insulates the rooms from exposure to outdoor conditions. The museum has no heat or air conditioning, thus there is little proclivity towards

³⁵ Crown Point Court House, "Museum," Lake County Historical Museum.

fluctuation in relative humidity within the rooms. The floors are cement with carpet, providing further insulation. The museum has had no infestation of insects since it opened in 1982.³⁶ There is no ventilation system; therefore, the presence of dirt, dust and debris is minimal.

Space is limited in the museum, storage areas are unorganized and overcrowded; finding a place to store the Brown Family Archive was not without challenge. Mr. Woods and I assessed various options before deciding on storing the collection in a metal cabinet in the Victorian Room. The other options were in the rafters of the museum, the third level in a storage room and a cabinet made of plywood in the Special Exhibits room.





Images 41,42. "Real world" conditions are not always ideal. The 3rd floor storage area on the left gets very hot in the summer, the cabinet on the right has obvious plywood issues.

The Victorian Room exhibits the least level of fluctuation in temperature and relative humidity of the three options. According to James Reilly of the Image Permanence Institute, "The ideal arrangement for storing boxed prints consists of closed metal cabinets.... Unfinished wood or plywood is the least desirable.³⁷ Therefore, the plywood cabinet was not an option, resulting in the metal cabinet in the Victorian Room the logical choice. The 1920s cabinet is large enough to accommodate the collection and has two lockable doors.

40

³⁶ In the summer of 2005, there is an insect infestation surrounding a "dough doll" collection. This problem was isolated to a display case, and remedied immediately upon its discovery.

³⁷ Reilly, 97.





Image 43,44. This 1920s metal cabinet will be cleaned out and made accessible for The Brown Family Archive. It measures $28H \times 41W \times 25$ deep with a removable middle shelf.

Lake County Historical Museum established its policy for accepting long-term loans in 1982. It based its policy on guidelines set forth by the American Association of Museums, and other institutions.

James-Paul Brown has offered permission to use the collection in any manner for use in my thesis project. Furthermore he has permitted use of the images on the Court House website³⁸ which has a link to the museum. James-Paul has given copyright permission for the following instances: 1) Extended family requesting copies of the images 2) Researchers (students, local historians, libraries, other museums) requesting copies of the images 3) The Lake County Historical Museum using images for publicity or promotional purposes. In any case of publication, credit to "James-Paul Brown: The Brown Family Archive" must be given. Once the collection is deposited at LCHM, I will work with James-Paul Brown and Bruce Woods in drawing an official copyright agreement conducive to the LCHM's policies, while upholding James-Paul Brown copyright protection.

Methodology: A Case Study Physical Arrangement

Before determining the purpose of the collection and deciding on the final storage location, I rearranged the collection chronologically. After discussions with James-Paul Brown, Bruce Woods and David Wooters, Archivist at George Eastman House, I decided to store the collection at Lake County Historical Society. At this time, the purpose of the collection became clear, to make it accessible to the community of Lake County. Taking the purpose into account as well as the obvious categories, Civil War artifacts, First National Bank artifacts and Family photographs, I decided to *physically* divide into three

³⁸ Crown Point Court House, "Museum," Lake County Historical Museum.

categories, with the Family category having three sub-categories. The three sub-categories for the Family category are Iddings, Banks and Brown.



Image 45. I began by dividing the collection into three categories: Family, Bank and Civil War.

In the event a photograph features multiple subjects – from both families, the photograph is cross-referenced with a note in the database and a print out of the digital facsimile of the photograph in the cross-referenced box. It is printed is on acid-free paper, sleeved in its own enclosure, and cross-referenced with a note indicating the box that holds the original photograph. The original photograph will go in the box of the dominant family (some group photographs are mostly of the Browns with a few Iddings, for instance). Alternatively, it will be placed in the box corresponding to the name written on the photograph such as Myrtle Banks, even if John Iddings is in the photograph with her.

Physical arrangement is also dependent upon the size of the photographs. As the project progresses I plan to administer conservation efforts with the panoramas, rendering them too large for the boxes which house the rest of the collection, at that time they will be placed in an alternative *physical* location in the museum than the rest of the collection and duly noted in the database.



Image 46. I then sorted the Family category into the Banks, the Iddings and the Brown families.





 $Image\ 47,48.\ I\ organized\ each\ family\ by\ subject,\ noting\ processes\ and\ formats.\ I\ then\ carefully\ place\ the\ artifacts\ in\ archival\ storage\ boxes\ to\ await\ proper\ housing\ techniques.$

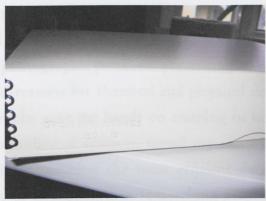


Image 49. Even though the labels are adhered to the box with plastic label holders, it is important to write the name of the box underneath in pencil, age and temperature fluctuation could cause the label to eventually fall off.





Images 50,51. The Brown Family Archive is on its way to becoming properly housed, stored and made accessible to the public.

The Brown Family Archive served as an ideal collection for use in this case study. It is comprised of historically and culturally significant photographs and artifacts. It offered a variety of photographic processes presenting an opportunity to date items and explore and understand reasons for chemical and physical deterioration. The various sizes of formats of photographs gave me hands on training in housing collections of this scope and size, and the multitude of artifacts, tested my skills in cataloguing. I achieved a new level of expertise in researching the most efficient database to serve my purposes. I explored technology as it happened in researching scanning equipment, and computer hardware necessary to digitize and database the collection. The level of knowledge in museum practices I achieved is invaluable.

I honed my oral history skills during videotaped interviews with James-Paul and William Brown, questioning Bruce Woods on every aspect of the Brown Family in Crown Point, and listening to Bud McFadden's stories as he identified people in the photographs for me. Working intimately with the collection brought welcomed dimension to my investigative skills in ascertaining intellectual order.

I deliver this thesis report and case study in hopes that my research and analysis will help others interested in preserving private family collections, whether in a domestic setting or in an institution such as a library, archive or museum.

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Joe Struble, George Eastman House, Archival supplies and methods.
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Jennifer Tyner, Ryerson Student, PPCM, class of 2006, Housing.
David Wooters, George Eastman House, Archival supplies and methods.

Appendices

APPENDIX 1a. Cleaning the Glass

Excerpt from: Cased Images: Analysis • Stabilization • Identification Edited July 26, 2006

DAGUERREOTYPES AMBROTYPES TINTYPES



CASED IMAGES

ANALYSIS . STABILIZATION . IDENTIFICATION

Taylor Whitney
Final Term Paper
19th Century: Materials & Processes
Professor Mike Robinson
Ryerson University
Written April 18, 2005 by Taylor Whitney.



Some of the tools needed to clean or work on cased images.

Cleaning the glass

This phase of stabilization is best performed professional conservator; the items are very fragile, sensitive to oxidation (daguerreotypes) and damage to the emulsion and one needs special tools to disassemble the case without causing further damage.

Cleaning the protective glass of a daguerreotype requires a different technique than that of cleaning the glass of an ambrotype or a tintype. The main difference is that the silver remaining in daguerreotype image is very sensitive to oxidation. If after inspection, if it is apparent that the seal is broken, loose or dried out and determined to need replacement, take advantage of the resealing procedure to clean the glass. If the seal is intact, forgo the glass cleaning. The risk of the damage to the image during cleaning is not worth clean glass.

1. Getting started

These helpful tips may seem like common sense but, if one's eyeglasses, a necklace, or pen hit the image, it will cause abrasions to the delicate surface:

Prepare a work area large enough to spread out free the area of any dirt and debris.

Do not have water or other beverages nearby.

Do not smoke while working on the images.

Tie hair back and secure or remove jewelry.

Make sure eyeglasses are secure.

Remove all ink pens from the area.

2. Removing the glass from the case

Sometimes the image will slip out of its case easily, but often it is in its place rather tightly. Do not try to force it. This may cause damage to the thin metal preserver which is essentially gold foil and very fragile. If the preserver is bent it may not fit back into the

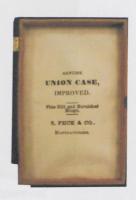
casing correctly. Conservators use a suction device purchasable at a hardware store. Gently place the suction device in the center of the glass and remove.

It is important to note some ambrotypes were misassembled with the emulsion layer up, which means the image layer is actually on the *surface* of the image - not protected by glass at all. In this case, using the suction device method will damage the collodion and interfere with the image; use a microspatula for removal instead of a suction cup.

If the image fits too tightly for the suction cup to pull it out, use a microspatula to gently lift it out. Carefully, insert the microspatula into the seam between the preserver and the wooden edge of the frame. It should pop out easily. Often a label featuring the name of the manufacturing company is under the image side of the case. This information can aid you in researching more information on the image.

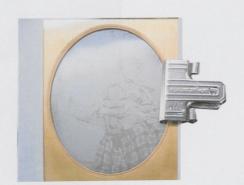
This is the inside of a Union Case housing a tintype.

The information aids in researching the date and identifying of the image.



2a. After removal from its case, access the preserver from the reverse side. The preserver may be tight; use of the microspatula to loosen it. Slide the microspatula under the foil rim and pry open a small section at a time. Do this carefully on all four sides before attempting to pull it off the front.

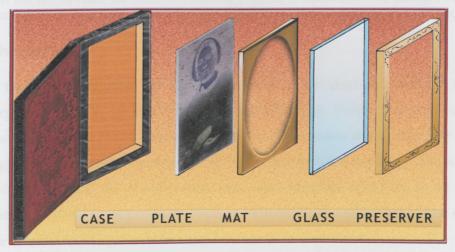




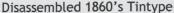
Once one side is completely loose, clip the mat and image together. It is important not to cause any (or more) abrasions to the surface, therefore hold the mat and image in place with a clip while removing the preserver.

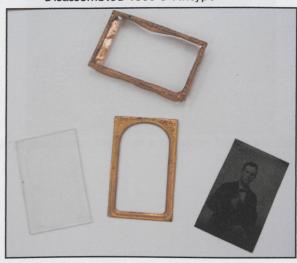
2b. Once the preserver is off proceed by carefully removing the clip and gently separating the mat from the glass. Expect the glass to be dirty and yellowed.

Note: If you are working with a daguerreotype, it is imperative that you protect it from exposure to environmental elements. For protecting the daguerreotype, leave it intact with the mat holding it with clip (careful to not touch the image with the clip) and place it in an airtight container such as Tupperware® with the lid closed.



Daguerreotypes were popular from 1839 to the mid 1860s, however they were made into the 1870's.







The image on the left reveals the patented Cutting process of assembly. The positive image of an ambrotype is actually a negative emulsion backed by a black cloth or sheet of metal.

3. Rinsing the glass

Rinse the glass in distilled water and polish with a soft cloth. It is helpful to place the glass in a carpenters vice to hold it while you are polishing. Polish the glass with strong vigorous hand movements for at least a few minutes. Sometimes it will take five minutes of cleaning the glass to get a perfectly clean piece. Since this is not something that will likely be done again within the next 50 or 100 years, you want to make sure you do all you can to make it look its best. Never use products such as Windex®; the ammonia in the cleaner will react with the alkaline in the glass and cause deterioration over time.



Carpenter's vice found at a common hardware store.

4. Observations while the image is disassembled

Once the artifact is disassembled, additional information on the history of the image may reveal itself. As has already been noted, the inside of the case often bears a label of the manufacturer. Often times there has been something written on the back of the image either by a family member or the photographer. If the cased image, at an earlier time, has been resealed, a note to that effect may be behind the image.

4a. The extent of deterioration can give an idea as to the date of the image. Ambrotypes sometimes exhibit *ferning*, a sign of the deterioration of the balsam glue used to adhere the two sheets of glass together. So-called because of the fern-like pattern formed on the glass. Often times there are brown spots, which before taking the object apart appear to be on the image, but are actually on the glass. This is the alkaline in the glass deteriorating. In daguerreotypes, the damage can look twice the extent that it actually is, because of the duplicated spots reflecting on the silver surface.





The spots on this daguerreotype (image on left) are actually less it seemed; they are reflections on the daguerreotype of alkaline breakdown.

4b. Always take special care while inspecting the image. It may seem a small piece of glass is easily replaceable, but actually the thickness of glass made in the 1800s may be different from what you would be able to find today; trying to fit a piece of ill fitting glass into the case will not work and could cause further damage to the already fragile case.

5. Cleaning the image

One should not clean the surfaces of daguerreotypes, ambrotypes or tintypes because the emulsion surfaces are very delicate and susceptible to mechanical abrasion as well as disfiguring fingerprints.³⁹

6. Reassembly

Carefully reassemble the object after the glass is clean; due to pits and scratches it may be impossible to bring the glass to an impeccable sheen, but that is the goal.

IMAGE ● MAT ● GLASS ● PRESERVER

One sign that an image has previously been disassembled is that was not put back together in the right order. One common mistake is putting the glass closest to the front wooden edge of the frame. Because of our familiarity with picture frames, which became popular shortly after albumen prints on a paper support replaced tintypes were by. The glass belongs inside the preserver. Laying the preserver next to the image (even with the mat in between the two) can cause undue physical abrasions to the emulsion layer.

Hold the first three elements together with the clip so as not to cause abrasions to the surface of the image. Using an archivally sound tape such as Filmoplast® tape the image, mat and glass together. Conservators recommended double enforcing the corners. Using a strip for the side and one for the edge and slicing the tape in a way that it lays across each corner twice accomplishes this. Conservators also recommended to documenting this procedure by writing a short note including the date (in pencil) on the sealing tape before wrapping it in the preserver. Carefully replace the preserver. Notice the clamp marks that *may* be present on the back of the daguerreotype, (this is a sign that the piece has been previously reassembled) line up the preserver with the indent marks. This will ensure you have replaced it in its original position, and not cause more stress on the preserver.

Replace the cleaned image in the case. Often the old seal will be stored in the back of the image side, to offer information to the next person that may disassemble the object.

³⁹ Ritzenthaler, Gerald, J. Munoff, Margery S. Long. Archives & Manuscripts: Administration of Photographic Collections. (Chicago: Society of American Archivists, 1984),104.

Case Study: Identifying a Tintype

My inclination at the start of this paper was to present a brief history of cased images and discuss stabilizing broken images including research on various condition reports used in institutions. I also wanted to identify the people in the cased images within the collection. I concentrated my efforts on the man in the image below.

It is a tintype in a Union Case. After some research on the Union Case, I ascertained it was a Scroll - Geometric Case, designed by the manufacturing company of Samuel Peck, die-engraved by Frederick C. Key⁴⁰. Peck was originally a photographer, but as the photography business grew, so did the need for cases to house them in, he made a substantial living at this trade.



Scroll - Geometric, carte de visite size, made by S. Peck and Company. He abandoned his photography business to open a manufacturing company and made a substantial living.

The Union Case with this design was popular in the 1850s, however it is possible it was used into the late 1860s.

The preserver is ornate and I believed it is from the mid 1860s. I speculated the man to be about 20 years old, and of some prominence; he has a gold ring on his pinky finger and a gold pin on his shirt. The colorist took care in bringing attention to these pieces of jewelry by adding gold leaf to the tintype, leading me to believe they must be significant.

⁴⁰ Adele Kenny. *Photographic Cases: Victorian Design Sources 1840-1870*. (Pennsylvania: Schiffer Publishing Ltd., 2001), 105.

The family thought it might be John Brown, the owner's great-grandfather. I compared it with several other photographs of John Brown, both young and old and did not see the resemblance. I conducted internet research on John Brown and found nothing to indicate this was the same man. The tintype came in a collection of 3,000 photographs that needed sorting. I used this identification process opportunity to start separating categorizing the images, while looking for some clue as to who the man in the tintype might be. The subject in a cabinet card caught my attention. He was a bit older than the young man in the tintype; he appeared to be in his forties. I looked closely at the young man in the tintype through my 8X loop. He is handsome; he has a head of thick wavy hair, freckles on his face and a straight nose. I looked at the man in the cabinet card through my loop, in better light; I began analyzing small parts of his face, the ears, the lips, the chin, and the hairline. I compared features between the cabinet card and the tintype.

The ear was most convincing. There was a distinguishing ridge at the top; it was similar ridge to the subject of the tintype's ear. The excitement grew. I felt a kinship towards my little tinman. I felt like I was giving him an identity, bringing him home. Of course, this was very preliminary research based primarily on dating photographic processes and calculating the man's age.

As I categorized more photographs, I eventually came across another photograph that I thought might be the same man, only in this gelatin silver photograph the subject appeared to be in his late 60s. The exciting is that there was a name on this photograph: Nathaniel P. Banks. I asked myself, could this be the same man as the man in the tintype and the cabinet card? I became increasingly convinced that these three images were the same man as I compared the three images back and forth and back again with my 8X loop.

At this time, I enlisted the help of a colleague and Ryerson University Professor, Don Snyder. I briefly discussed my project with him and produced the three images, but withheld my suspicions on the ear. I waited patiently as he meticulously examined each image. Finally, he muttered "...the ear" under his breath. I waited a bit longer. He looked up dramatically and said, "Did you notice the ear? I think it's the same ear." This was quite thrilling! Professor Snyder suggested I use a face-mapping program to match points in the face, something I, too, had previously considered. This would tell me absolutely if it was in fact the same person. I contacted the Toronto Police Department and the Toronto Coroner's Office but they were unable to assist me. I then considered using Photoshop® to match the ears and sort of bushy eyebrows. I took microscopic shots of those areas for each of the

images and imported them into Photoshop®, changing the opacity of the images to see if the ears aligned. Although this is not an exact science, it did provide another layer of evidence.

Don Snyder and I discussed was the timeline of the processes in relation to the age of the man. The young man was about 20 in the photograph, about 1865. The albumen process was popular in the 1880s, which would put the man in his 40s, which seemed correct. The older man looked to be at least in his 60s and the process was a gelatin silver print from the first decade of the 1900s. My observations were starting to make sense. The only clue we had so far from the photographs was that the gelatin silver was from the gentleman's 50th wedding anniversary and that his name was Nathaniel P. Banks.







Cabinet Card ca. 1880

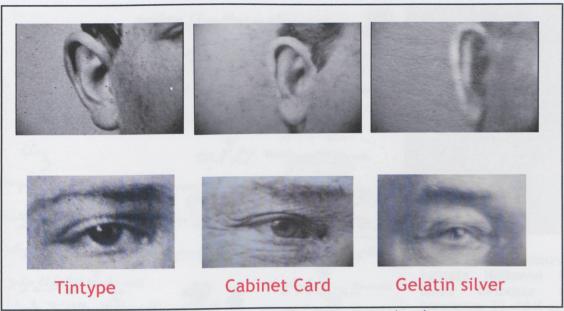


Gelatin silver ca. 1910s





Close-up on the faces of Nathaniel?



Extreme close-up on the ears, eyes and eyebrows.

Following my suspicions that this might be Nathaniel P. Banks, I started researching family history documents that came with the collection.

I discovered Nathaniel P. Banks was born on September 25, 1845, making my calculations correct if he was about 20 in 1865. He joined the military and fought in the Civil War from 1863-1865. I learned he was married in 1869 at the age of 24. The gelatin silver photograph was

his 50th wedding anniversary putting the photograph at 1919 and his age, 74.

Orin Banks and Olive Brown married Was Orin Banks-Jan. 25, 1803 - 62, 29, 1857. Olive Banks-Mpr. 12, 1805 - Jan. 27, 1887. BetayBankattkin-Jan. 19, 1824 - Oct. 16, 1885. CharleswestBanks-Oct. 28,1825 - May 2, 1910. MoroponBanks-Nov. 4, 1827 -Elisha Banks-Nov. 14, 1829 - apr. 1909. Parley Barres - apr. 3, 1832-July 20, 1834 - June 15, 1918. William allen Bankabet 28, 1836 - Wov. 7, 1904. George LovelBanks Get. 13, 1839 - Orig. 20, 1924. IraBanks-Tra Banks - Oct. 13, 1841 - Jel. Hemme Banks - Oct. 28, 1843 - June Nathamiel Banks - Sept. 25, 1845 - Wayle, 1927 Larobox Banks-Jan. 31, 1849-Grin Banka born someplace in New York a Rev. Soldiero. O rin died on a farmona a former. His father. Holland Whitehmar that he could recommo



Family history records indicate Nathaniel P. Banks birthdate at September 25, 1845 and his marriage to Clara Chandler in 1869 at the age of 24.





Nathaniel P. Banks Civil War diary, 1865.

Since I was relatively convinced this man was Nathaniel P. Banks, I started conducting research on him in the photographic collection as well as on the internet.

Nathaniel P. Banks (have still not been able to find his middle name) was in fact a Civil War soldier, evidentiary by the diary pictured above. He was a prominent member in his community (Crown Point, Indiana) once he left the service. In the collection is a diary of his, when he was a soldier.

Further research and meeting with the family should help me to conclude 100% if this is in fact Nathaniel P. Banks. I look forward to putting more pieces of the puzzle together. I will also trace Nathaniel to the current owner, James-Paul Brown and find out

how they are related. I think he is a great uncle on his mother's side, but have not yet confirmed that. For the short period I had to work on this mystery, I think I have at least uncovered into some promising leads, and hope to have time to break it completely open.

Note: The author received confirmation in January 2006, that the Cabinet Card is Nathaniel P. Banks. The tintype remains unidentified.

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Images

- Diagram of daguerreotype pieces: Ritzenthaler, Gerald, J. Munoff, Margery S. Long.

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- **Ambrotype images:** Courtesy of James-Paul Brown. Photography and digital manipulation by Taylor Whitney.
- **Tintype images:** Courtesy of James-Paul Brown. Photography and digital manipulation by Taylor Whitney.
- **Tools:** Courtesy of Mike Robinson. Photography and digital manipulation by Taylor Whitney.

- Tintype Union Case (inside): Courtesy of James-Paul Brown. Photography and digital manipulation by Taylor Whitney.
- Microspatula at back of daguerreotype: Courtesy of James-Paul Brown, Mike Robinson. Photography and digital manipulation by Taylor Whitney.
- **Disassembled tintype:** Courtesy of James-Paul Brown. Photography and digital manipulation by Taylor Whitney.
- Glass in Carpenter's vice: Courtesy of James-Paul Brown, Mike Robinson. Photography and digital manipulation by Taylor Whitney.
- Daguerreotype before and after: Courtesy of James-Paul Brown. Photography and digital manipulation by Taylor Whitney.
- Tintype, Cabinet Card and Gelatin Silver of Nathaniel Banks (all variations):

 Courtesy of James-Paul Brown. Photography and digital manipulation by Taylor
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- Family History Papers: Courtesy of James-Paul Brown. Photography and digital manipulation by Taylor Whitney.
- **Civil War Diary:** Courtesy of James-Paul Brown. Photography and digital manipulation by Taylor Whitney.

Encyclopedia, Genealogy and Biography of Lake County Indiana

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HISTORY OF LAKE COUNTY.

On December 6, 1851, she was united in marriage with Mr. Charles Marvin. He was born in the state of Connections.

N. P. BANKS

N. P. Banks, one of the practical and progressive farmers of Hobart

(Nathaniel P. Banks essay starts at the bottom of page 388.)

HISTORY OF LAKE COUNTY.

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township, resides on Section 6, and for many years has been a resident of the county. He was born in Lake county, Ohio, September 25, 1845, and in the paternal line is of Holland-Dutch lineage. His great-great-grandfather was born in Holland and, coming to America, served as a soldier in the Revolutionary war. Orin Banks, the father of N. P. Banks, was born in New York and was reared and married there, the lady of his choice being Miss Olive Brown, whose birth occurred in the Empire state and who was of English descent. He emigrated to Ohio in an early day, settling in Lake county, whence in 1845 he removed to LaPorte county, Indiana, establishing his home just within the boundary limits of LaPorte city. He afterward lived in Scipio township, that county, and in 1852 he came to Lake county, settling in Ross township, where he carried on farming. His last days, however, were passed in Hobart township, where he died at the age of fiftyseven years. He was a very public-spirited man, and was justice of the peace for a number of years. He also belonged to the Baptist church, was very active and zealous in its work, filled the office of deacon and did everything in his power to advance the cause of Christianity in his community. His life was honorable, his actions manly and sincere and he left to his family the priceless heritage of an untarnished name. His wife, a most estimable lady, lived to be about seventy-two years of age. In their family were twelve children, of whom two died in infancy, while ten reached manhood or womanhood and eight are now living.

N. P. Banks is the youngest son and eleventh child of the family, and was but six weeks old when he landed in LaPorte county, Indiana, with his parents. Seven years later he came with them to Lake county, and was largely reared in Hobart township, acquiring his education in the public schools. He was but sixteen years of age when in 1862 he enlisted in Miller's Chicago Battery for three years' service. He was No. 4 on the gun, and was afterward corporal chief of the caisson and gunner. During the last year of his service he held the rank of sergeant and received an honorable discharge in 1865, after having been a member of the army for almost three years. He was the youngest man in his company, and he took part in seventeen important battles and thirty-four skirmishes, including many of the most hotly contested engagements of the war. Among the number were the battles of the Atlanta campaign, and though he was often in the thickest of

the fight he did not receive even a scratch in all of his service. When the country no longer needed his aid he was honorably discharged at Chicago in 1865, and returned to his home in Lake county with a most creditable military record.

Desirous of enjoying better school advantages Mr. Banks then attended high school for one term, and later he engaged in teaching school through four winter seasons, while in the summer months he worked for wages on the farm.

On the 14th of February, 1869, occurred the marriage of Mr. Banks and Miss Clara E. Chandler, a daughter of T. P. and Betsey (Woodmansee) Chandler. The parents were natives of Vermont and in their family were four children, of whom Mrs. Banks is the youngest. Her birth occurred in the Green Mountain state January 1, 1850, and by her marriage she has become the mother of six children: Mary, the wife of J. M. Sholl; Carrie E., who is attending college at Oberlin, Ohio; Myrtle L., who is engaged in teaching in the schools of Hobart; Bessie, the wife of Rev. Dunning Idle, a celebrated minister of the Methodist Episcopal church; Flora, who is attending school in Hobart; and Marian, deceased.

After his marriage Mr. Banks located upon a farm in Hobart township and has since been engaged in general agricultural pursuits. He now has two hundred and forty acres of land, which is a well developed property, the fields being highly cultivated, while upon the farm are good buildings and all modern equipments. This constitutes one of the attractive features in the landscape, and a glance indicates to the passer-by the care and supervision of an enterprising, progressive owner. Mr. Banks is a stockholder and also a director in the First State Bank of Hobart. Mr. Banks is a director of the Lake County Farmers' Mutual Insurance Company, organized some years ago on a small scale, and now embracing the whole county. There are 1,310 policies and the insurance in force is about \$2,150,000.00, which exists amongst the best farmers of the county. There are five directors, four of them being N. P. Banks, Albert Foster, Star A. Brownell and John Borger. In public affairs he has also been prominent and influential, and his influence is always given on the side of right, reform and improvement. He was township trustee of Hobart for five years, and he has always been a stanch Republican, putting forth strenuous effort in behalf of the

party. He maintains pleasant relations with his old army comrades through his membership in Hobart Post No. 411, G. A. R., and he also belongs to the Odd Fellows society. No. 333, at that place. In matters of citizenship he is as true and loyal as when he followed the nation's starry banner upon the battlefields of the south.

AUGUST VOLTMER.

August Voltmer is a representative of that fine class of German-American citizens who have been such an important factor in the development of the material resources and in the social and intellectual life of Lake county. He is himself still a young man in point of years and vigor, but for the past twenty or more years has been making his influence felt for good and advancement in this county, and is also prosperous to an unusual degree in his own affairs.

He is a native of Will county, Illinois, where he was born October 28, 1861, being the fifth in a family of seven children, three sons and four daughters, born to Henry and Mary (Rabe) Voltmer. These children are all living, and there are three others who are residents of Lake county, namely: Henry, Lizzie, and Mary, who is the wife of William Neidert, a farmer of West Creek township. The father of the family was born in Germany, in the province of Hanover, and he is still living at the age of eighty years. He was a mechanic until he came to America, and since then he has given his attention to farming. He emigrated to this country when a young man, and from New York came to Will county, Illinois, being a poor but honest and industrious man, and in the course of his active career he accumulated one hundred and sixty acres in Will county, and also purchased two hundred and eighty acres in West Creek township of this county, where he still makes his home. He received his education in both the German and English tongues. He is a Republican, and is a member of the Lutheran church, as also was his good wife, who died about 1896.

Mr. August Voltmer was reared and educated in Will county, Illinois, and by early training is familiar with both the German and the English languages. He was reared to farming life, and has given principal attention to stock-raising. He has a number of pure-blooded Chester White swine, and his cattle are of high-grade Durhams.

He was married, May 2, 1897, to Miss Lena Balgemann, and of this

Excerpt from: Encyclopedia, Genealogy and Biography of Lake County Indiana

HISTORY OF LAKE COUNTY.

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The Boyd brothers are ardent supporters of the Republican party, and have always advocated strongly the principles of the platform. The first presidential vote they cast was for Lincoln, and they cast their votes for Grant, Garfield, Blaine and McKinley. Mr. Eli Boyd has yet in his possession a vest made in the year 1856, the year that General Fremont was the first nominee of the Republican party. The Boyd brothers and wives are attendants of the Methodist Episcopal church, and give to the benevolences, and all needy are well remembered.

Mr. and Mrs. Boyd are among the leading people of Ross township, and we are pleased to present this sketch.

DR. H. L. IDDINGS.

Dr. H. L. Iddings, of Merrillville, Ross township, has been the leading medical practitioner of this town for the past twenty years. He had already attained to considerable prominence in his profession before locating here, and since then he has not only found in Merrillville and the surrounding country a large field for his life work, but has also taken an active part in various matters pertaining to the general welfare of the community, filling in all respects the niche of a broad-minded, public-spirited and enterprising citizen.

Dr. Iddings was born in Kendallville, Noble county, Indiana, January 22, 1852, being the eldest of the seven children, four of whom are now deceased, born to Warren and Hester (Newman) Iddings. Warren Iddings was a son of Henry Iddings, a native of Pennsylvania and of Scotch and Welsh descent. He was born in Summit county, Ohio, where he remained till he was eleven years old, and during the rest of his life followed agricultural pursuits mainly in Noble county, Indiana, where his death occurred in his seventy-ninth year. His wife was also a native of Ohio, and of Irish and German descent.

Dr. Iddings was a student in the high school at Kendallville, Indiana, spent one year in the Fort Wayne Methodist Episcopal College and one year at Ann Arbor in the State University. He gained his early training mostly by his own efforts, and before taking up the study of medicine taught school for three years. He read medicine with Dr. Gunder Erickson at Kendallville, and in 1876 graduated from the Detroit College of Medicine,

at Detroit. For four years he was located in practice at Swan, Noble county, Indiana, and was then appointed to the office of physician to the state penitentiary at Michigan City, discharging the duties of that position for two years. He came to Merrillville in 1883, and has been in constant and successful practice here ever since. He is examining surgeon for the New York Life Insurance Company, the Equitable Life Insurance Company, and is district examiner for the Catholic Order of Foresters.

Dr. Iddings affiliates with the Knights of Pythias at Crown Point. He is a strong Republican in politics, and on the ticket of that party was elected to the trusteeship of Ross township, which office he held for seven years and a half.

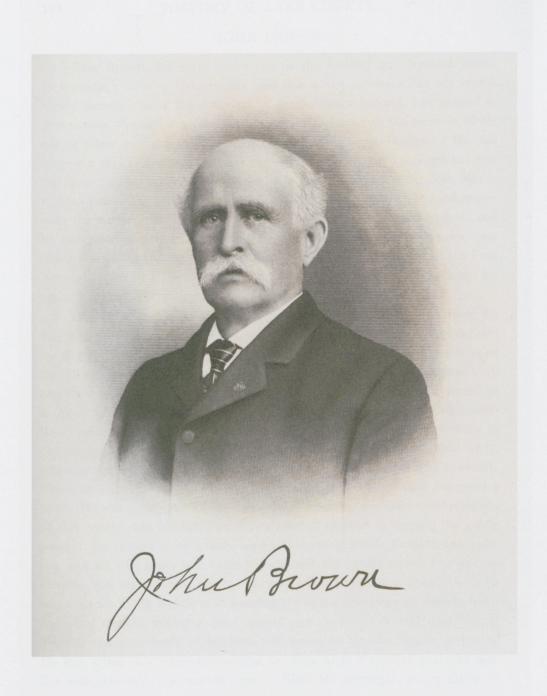
Dr. Iddings married, in 1878, Miss Mary E. Clark, the fourth in number of the seven children of Jonathan and Polly (Skinner) Clark. She was born in Noble county, Indiana. There are six children of this marriage: John, who is a student in the medical department of Northwestern University at Chicago; Harold and Harry, twins; Morris, Eva and Fred.

JOSEPH A. BEATTIE.

Joseph A. Beattie, who resides on section 34, Center township, and is filling the position of township trustee, was born in Winfield township, Lake county, Indiana, July 5, 1862. His father was William Beattie, a native of Ireland, in which country he was reared and married. His wife bore the maiden name of Rebecca Ross and was also a native of the Emerald Isle. Crossing the Atlantic, they became residents of Philadelphia, Pennsylvania, and thence removed to Lake county, Indiana, locating in Winfield township, where Mr. William Beattie carried on agricultural pursuits throughout his remaining days. He passed away April 9, 1899, and his wife also died in Lake county, the date of her death being June 1, 1899. In their family were nine children, three sons and six daughters, of whom three died in infancy, while six reached years of maturity and four are now living.

Joseph A. Beattie, the eighth member of the family and the only surviving son, was reared on the old family homestead and is indebted to the district schools for the early educational privileges he enjoyed. He afterward attended the high school at Crown Point, and when not engaged with the duties of the schoolroom he gave his father the benefit of his services by

APPENDIX 2c.
John Brown
Excerpt from:
Encyclopedia, Genealogy and
Biography of Lake County Indiana



JOHN BROWN.

John Brown, for many years one of the forceful and honored factors in financial circles in Lake county and one whose influence has not been a minor element among the financiers of northwestern Indiana, has attained to prominence through the inherent force of his character, the exercise of his native talent and the utilization of surrounding opportunities. He has become a capitalist whose business career excites the admiration and has won the respect of his contemporaries, yet it is not this alone that entitles him to rank as one of the foremost men of his day in Lake county. His connection with the public interests of Crown Point is far-reaching and beneficial, and he has aided largely in promoting community affairs which have for their object the welfare of the general public. He is now the president of the First National Bank of Crown Point and he has extensive landed possessions, his realty holdings comprising six thousand acres.

Moreover, Mr. Brown is entitled to mention in this volume from the fact that he is one of the native sons of Lake county, his birth having occurred in Eagle Creek township, on the 7th of October, 1840. The family is of Scotch lineage, and the grandfather, John Brown, was a native of New York and took a very active and prominent part in public affairs. He served as a major in the war of 1812 and lived to the very advanced age of ninetythree years. Alexander F. Brown, the father of our subject, was born in Schenectady county, New York, in 1804, and there remained until 1837, when he removed to Lake county, Indiana, settling in Eagle Creek township. There he secured land from the government and developed and improved a farm. He was widely recognized as one of the leading and influential residents of this county, and his influence was a marked element in shaping the public policy. He became a recognized leader in forming public thought and opinion, and all who knew him respected him for his loyalty to his honest convictions and his devotion to the general welfare. In his political views he was a stanch Whig and he held membership in the Presbyterian church, holding office therein, taking a very helpful part in its work and contributing liberally and generously of his time and means to various church activities. He was killed in a runaway accident in 1849 when forty-five years of age. His wife, who bore the maiden name of Eliza M. Barringer, was a native of

Schenectady county, New York, and there spent the days of her girlhood. She lived to be seventy-three years of age and died in Lake county, Indiana. On her husband's death she was left to care for a family of five children, one of whom was born after his demise. The eldest, a daughter, Mary, now the deceased wife of Thomas Fisher, was but twelve years of age at the time of the runaway accident which terminated the active and useful career of the husband and father. John was the second of the family. William B., the third, is a resident of Crown Point. Anna is the wife of William C. Nicholson, of Crown Point. George, the youngest, died when twenty-nine years of age, leaving a widow and three sons. Mrs. Alexander Brown reared her family of five children and much credit is due her for their success in life. She desired that they should have good educational privileges and thus be well fitted to meet life's practical and responsible duties, and she put forth every effort in her power to thus qualify them. She was one of the noble pioneer women of Lake county and all praise is due her from her children and friends.

John Brown remained with his mother assisting her in the work of the home farm until, feeling that his first duty was to his country, he enlisted as a member of Company I, Fifth Indiana Cavalry. He joined the army as a private in 1861, was promoted to the rank of sergeant and was captured with his regiment at Sunshine church in Georgia when on the Stoneman raid. He was held a prisoner for seven months. He was in many hard-fought battles. He took part in the entire Atlanta campaign until captured with Stoneman at Sunshine church, near Macon, Georgia. At Indianapolis, June 27, 1865, he was mustered out, having served for three years, during which time he was ever faithful to his duty, following the old flag in many a hotly contested battle, where he displayed marked valor and loyalty.

Mr. Brown at the close of the war returned to Lake county, where he began farming, following that occupation until 1870, when he was elected county treasurer upon the Republican ticket. He discharged the duties of the position so faithfully that in 1872 he was reëlected, and in 1876 he was chosen for the office of county auditor. In 1880 he was once more elected to that position and served for eight years, retiring from the office as he had entered it—with the confidence and good will of all concerned. He served for four years as county treasurer

and was township treasurer for a number of years, and in all these different public positions he displayed marked business and executive ability as well as unfaltering fidelity to the trust reposed in him. In the meantime he had become actively identified with financial interests of the county, having in 1874 established the First National Bank at Crown Point. He was one of the charter members and stockholders of this institution, which was capitalized for fifty thousand dollars. Its first president was James Burge, who was succeeded by David Turner, and Mr. Brown became the third president and is now acting in that capacity. He also has other business interests in the county, including a fine stock farm of about six thousand acres located in Eagle Creek and Cedar Creek townships. On this place he keeps about one thousand head of cattle and his annual sales of stock are very extensive and add materially to his income. In business affairs he is far-sighted and energetic, his judgment is correct and his plans are carried forward to successful completion.

Mr. Brown was united in marriage to Miss Almira Clark, and there were three children, a son and two daughters, born to them: Neil, who is now residing upon his father's extensive ranch; Mary Alice; and Grace Almira, who is the wife of E. S. Davis, of Chicago. For his second wife Mr. Brown chose Myrtle E. Ashton, and his present wife bore the maiden name of Jennie E. Northrup.

Mr. Brown is a member of the Grand Army of the Republic, identified with John Wheeler Post No. 149. He is also connected with the Masonic fraternity of Crown Point and holds membership with the Knights Templar at Valparaiso. In politics he is a stanch Republican, and it was upon that ticket that he was elected to the different positions which he has so capably filled. He has indeed been a prominent factor in community interests, and although he has conducted important and extensive business affairs he has never been remiss in citizenship, but on the contrary has contributed in large degree to the general welfare and progress.

GOTFRIED W. WAGONBLAST.

G. W. Wagonblast, who is now living a retired life in Center township, is numbered among those who have long been residents of Lake county, and, moreover, is entitled to mention in this volume because he was one of the

APPENDIX 3.

Questionnaire of a Photographic Collection
Excerpt from:
Interrogation of a Photo Album
(Edited July 12, 2006.)

1. When was the photograph made? 1a. Collection: What years does it span?	11. How has the collection been stored?
2. Where is it from?	12. Was the collection maltreated or neglected?
3. What materials were used?	13. Who owns it now?
4. Were the photographs put there	14. Who has owned the
(in the album) by the owner of the collection?	collection/photograph over the years?
4a. If not, who assembled the album? 4b. If so, who are the owners?	
5. What is the subject of the	15. What historical or cultural
photograph?	significance does the
5a. If travel photos, are they in order of the trip?	collection/photograph have?
5b. If family photos, what family or interrelated families is it?	
6. In what order are the photographs?	16. What family significance does it have?
7. What story are the photographs telling?	17. What role did the family play in the community?
8. Is there any writing on the	18. Is the collection missing any
photographs?	photographs?
	18a. What happened to the
	missing photographs?
9. Are there journals, letters, and/or	19. What physical damage is there?
diaries in the collection that	How did it happen?
pertain to the photograph?	
10. Are there any memorabilia that	20. Are there ever any repairs or
accompany the photograph?	conservation efforts?

APPENDIX 4.

Preliminary Collection Survey Worksheet
Excerpt from
Arrangement and Description in
Archives & Manuscripts

Preliminary Collection Survey

Name of Donor: Donor code for catalogue number: Name of Collection: Oversized material If yes see below Name of Donor: Donor code for catalogue number: Name of Collection: Oversized material					
Brief description and anal	ysis:				
-					
Physical condition: (we on	ly accept 'good' or 'excellent' cond	dition)			
Oversized materials:	Needs ov	Needs oversize storage			
	Dimensi	ons of oversized materials			
	Process	of oversized materials			
Processes in collection:					
Positive Processes:	Negative Processes:	Mounts:			
Daguerreotype Ambrotype Tintype Salt Print Albumen	glass negative wet dry	Album Carte-de-visite Cabinet card Sterograph Other			
Printing-out paper Developing-out paper Carbon	Color processes:				
Platinum Gum Bichromate Cyantoype Photomechanical Lantern Slide 35mm Slide Other	Kodachrome Cibaprint Autochrome				

APPENDIX 4.

Preliminary Collection Survey Worksheet

Excerpt from Arrangement and Description in Archives & Manuscripts

Preliminary Collection Survey

Name of Donor: Donor code for catalogue number: Name of Collection: Oversized material yes / no If yes see below					
Brief description and ana	lysis:				
Physical condition: (we on	ly accept 'good' or 'excellent' cond	lition)			
Oversized materials:	rsized materials: Needs oversize storage				
	Dimensi	ons of oversized materials			
	Process of	of oversized materials			
Processes in collection:					
Positive Processes:	Negative Processes:	Mounts:			
Daguerreotype Ambrotype Tintype Salt Print Albumen Printing-out paper	glass negative wet dry	Album Carte-de-visite Cabinet card Sterograph Other			
Developing-out paper Carbon Platinum	Color processes: Kodachrome				
Gum Bichromate Cyantoype Photomechanical Lantern Slide 35mm Slide Other	Cibaprint Autochrome				

APPENDIX 5.

Representative Institutional Requirements for Conversion Excerpt from

Excerpt from Moving Theory in Practice: Digital Imaging Tutorial

	Printed Text	Pictorial Materials	Oversized Materials	Manuscripts
Library of Congress	300 dpi, 1- bit, TIFF ITU-T.6	3,000 to 5,000 pixels 8-bit gray or 24-bit color, TIFF, uncompressed	[Maps] Color: 300 dpi, 24-bit, TIFF, uncompressed	300 dpi, 8-bit gray or 24-bit color, uncompressed TIFF or JPEG 5:1 compressed
NARA	300 dpi, 8-bit gray, TIFF, uncompressed	3000 pixels—long side, 2700 for square, 8-bit gray/24-bit color, TIFF, uncompressed	200 dpi, 8-bit gray or 24-bit color, TIFF, uncompressed	See printed text
Columbia	600 dpi, 1- bit, TIFF ITU-T.6	200 to 300 dpi, 8- bit gray or 24-bit color, TIFF	[Large format transparency] 4096x 6144, 24-bit, PhotoCD or TIFF	See pictorial materials
<u>IIDI</u>	300 dpi, 8-bit (24-bit for color, tinted or discolored originals), TIFF v.6, uncompressed	[Photographic prints] Same as printed text. [Art works] 600 dpi, 8-bit gray /24-bit color, TIFF, uncompr.	Scan from photo intermediates at 2400 dpi minimum	
Memory of the World	200 dpi, 1- bit, TIFF v.6, ITU-T.6	100 dpi, 8-bit gray or 24-bit color, TIFF-JPEG lossless or lossy for non- critical images	100 dpi, 8-bit or 24- bit, TIFF-JPEG lossless. For maps larger than A3, use photointermediates.	100 dpi, 4-bit gray, 24-bit color, TIFF- JPEG lossless, or lossy for non- critical images

Table 3-1: Representative institutional requirements for conversion, pg. 1. The information in this table is a highly condensed summary of each institution's requirements. Please visit the listed sites for complete details.

Colorado Digitization Project	600 dpi, 1- bit, TIFF, uncompressed 300 dpi, 8-bit gray, 24-bit color, TIFF, uncompressed	[Photographs] 3000 to 5000 pixels, 8-bit gray/24-bit color or greater, TIFF, uncompr. [Graphic Materials] 3000 pixels or 300 dpi, 8-bit gray/24- bit color or greater, TIFF, uncompressed	[Maps] 300 dpi, 8-bit gray/24-bit color, TIFF, uncompressed	
California Digital Library	600 dpi, 8-bit gray, TIFF- LZW	600 dpi, 24-bit color, TIFF-LZW	600 dpi if possible, but no less than 300 dpi, 24-bit color, TIFF-LZW	See pictorial materials

Table 3-1: Representative institutional requirements for conversion, pg. 2. The information in this table is a highly condensed summary of each institution's requirements. Please visit the listed sites for complete details.