

**Loyola Marymount University**

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**From the Selected Works of Kristine R. Brancolini**

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2000

# U.S. Steel Gary Works Photograph Collection

Kristine R. Brancolini, *Loyola Marymount University*



Available at: [https://works.bepress.com/kristine\\_brancolini/11/](https://works.bepress.com/kristine_brancolini/11/)

**Indiana University Digital Library Program  
Innovative Library Services and Technology Act Grant Proposal**

***Steelmaker–Steeltown: U.S. Steel Photograph Collection, 1906-1941***

*When I got off the train and looked about one minute, I said to myself, 'this is my town.'...What I could see looked like a brand new gold mining camp. Everybody busy, everybody hurrying. Graders, carpenters, mill construction workers. I knew how to handle myself in a mining camp and knew what to do here.*

— Albert Lee Anchors, 1907

In 1907, acting on impulse, Albert Lee Anchors bought a 35-cent train ticket from Chicago to Gary, Indiana. He liked what he saw, and he never looked back. (Lane, 1978, 60) When much of the frontier was disappearing and much of the Midwest was already well established, Gary boomed as a rough-and-tumble outpost that attracted opportunists, immigrants, and capitalists.

In the first part of the twentieth century, U.S. Steel Corporation transformed Gary by constructing a mill and creating a planned industrial community. The company's documentation of its presence in and influence on the town forms the basis of an impressive series of photographs.



**Description of the Project**

In partnership with the Calumet Regional Archive, the Indiana University Digital Library Program proposes digitizing and presenting on the World Wide Web the *U.S. Steel Photograph Collection*, a series of 1,900 photographs of the Gary Works steel mill and the corporate town of Gary, Indiana. The photographs document the construction and growth of a town conceived and built by the United States Steel Corporation and documented by U.S. Steel photographers from 1906 to 1941. In images of compelling diversity, students, scholars, and the general public will view all aspects of this planned industrial community: the steel mill, the city, and the citizens who lived and worked there.

Of interest to Hoosiers across the state, the project will tell the story of a town that is unique to Indiana. We are exploring additional partnerships with public libraries in the Gary region to assist us with usability testing of the site and to develop the content further by including their collections and expertise.

Funds from the Library Services and Technology Act grant will be used to pay for a computer and personnel costs that the Digital Library Program and the Calumet Regional Archive cannot cover with existing resources. This project represents the Digital Library Program's first efforts in creating a learner site for students from grades 4 through high school designed to present and

encourage interaction with a collection of archival photographs. We hope to use what we learn to enhance and improve existing Digital Library Program sites, such as the Hohenberger Photograph Collection and the Hoagy Carmichael Collection.

### The Collection

From 1906 to 1941, U. S. Steel photographers documented the building and growth of both the U. S. Steel Gary Works and the town of Gary for publicity purposes. Throughout the years, photographers depicted all aspects of life and work in and around the steel mill. Many images furnish information on company housing and Gary's North Side development, controlled by the Gary Land Company. Other photographs depict Gary schools, downtown landmarks, city parks, and the Gary Country Club. Although the latest photograph is dated 1941, the majority of the collection centers on the period from 1906 to 1931, the first twenty-five years of Gary's history. In the mid-1970s the United States Steel Corporation donated these photographs to the Calumet Regional Archives at Indiana University Northwest, located in Gary. The collection is comprised of approximately 1,600 8 x 10-inch glass negatives and contact prints, plus an additional 300 prints without negatives. (Please see <http://www.dlib.indiana.edu/new/steel.html> for selected images from the collection.)

In 1905 the United States Steel Corporation decided to construct a new steel mill in the Midwest. The corporation purchased a tract of land on the south shore of Lake Michigan to be the site of the largest and most modern steel mill in the world: the Gary Works. U.S. Steel also planned to build a town on the nearly deserted and undeveloped site. Hoping to avoid the recent mistake in Pullman, Illinois, U.S. Steel created a separate entity, the Gary Land Development Company to build the town of Gary, Indiana. Both the steel mill and the town were named for Judge Elbert H. Gary, Chairman of the Board of U.S. Steel.

### Significance of the Collection

The *U.S. Steel Photograph Collection* documents the building of the steel mills of Gary Works and the company town of Gary. The collection was created under the auspices of the Gary Works between 1906 and 1941. Many other historical images of the mill and town exist, but this collection offers striking photographs in a continuous, chronological sequence. The prints illustrate the impressive, laborious process involved in constructing the world's largest steel mill during the height of America's industrial revolution. They also provide a visual record of the downtown district and North Side residential areas designed and built by the corporation in its First Subdivision and the activities of the mill's workforce. Only through such photographs can the immensity of the Gary project, and its role in history, be appreciated. A selection of these photographs were exhibited as "Steelmaker-Steeltown: Building Gary, 1906-1930," in September 1990, with the support of the Indiana Humanities Council and Indiana University Northwest. However, the entire collection has been accessible only to scholars who could visit the Calumet Regional Archives.

The *U.S. Steel Photograph Collection* represents a unique resource for three areas of study: industrial history; the history of urban planning, specifically planned industrial communities; and the history of architecture. Furthermore, the collection supports the study of Indiana history at all levels. Teachers from the elementary level through post-secondary education have used the collection to teach Indiana history and many more would be able to use the collection were it accessible on the Web.

The *U.S. Steel Photograph Collection* documents significant developments in the history of the steel industry and the history of urban planning. Gary, Indiana, was a company town, “the child of modern American industry” (Mohl & Betten, 1972, 203). Company officials were familiar with other company towns, both unsuccessful and successful. The Indiana Steel Company was organized in 1906 as a subsidiary of U.S. Steel to build and operate the steel mills. At about the same time, Indiana Steel created the Gary Land Development Company to lay out and build the town. In this way Indiana Steel hoped to avoid the mistakes of Pullman, Illinois, a paternalistic community in which the company had “owned the houses, stores, schools, and in general had sought to regulate the private lives of their employees” (Moore, 1959, 262-3). The steel company was influenced by its success in Ambridge and Vandergrift, Pennsylvania, where the company’s subsidiaries built the cities and provided utilities, but employees could buy their own homes. In its formative stages, contemporary observers call Gary “the city of the century,” an “industrial utopia” made real by American technology (Fuller, 1907, 1482). Yet, Gary failed as a planned industrial community. According to historians Raymond Mohl and Neil Betten, “the gridiron imposed a dreary uniformity on the city; high-priced housing forced low-paid immigrant workers into slum housing put up by private real estate developers and builder’s in Gary’s unplanned but growing ‘south side’” (1972, 203). The *U.S. Steel Photograph Collection* offers a unique, corporate view of Gary’s potential and promise.

At the time it was founded, Gary was “Indiana’s last frontier” (Moore, 1959). In June 1906, before construction of the mill began, the Gary Land Company counted 334 people in the area. In 1915, Gary officially became a second-class city with a population of 55,370. Ten years later the population had increased to 100,426 residents (Moore, 1959, 341). Gary was a turn-of-the-century boomtown at a time when the rest of the Midwest had been settled for many years. Gary attracted immigrants from Europe, African Americans from the South, and fortune-seekers from other parts of the country. In 1930 Gary residents represented 15 nationalities numbering 500 or more, the most numerous being Mexicans, Poles, Czechs, Slovaks, Yugoslavs, Greeks, Italians, and Russians, in that order (Moore, 1959, 342). Many of the services offered by the Gary Works to its employees reflected the largely immigrant workforce, particularly in unskilled jobs. Photographs show language and culture classes in addition to industrial furnaces and hearths. (Please see Appendix A for sample photographs.) Many of the problems that Gary encountered stemmed from racial segregation and discrimination against ethnic groups. Despite the company’s desire to portray an idealized image of the steel mill and the town, the photographs illustrate the barriers facing the workers and their families.

None of the *U.S. Steel Photograph Collection* has been mounted on the Internet, with the exception of the small preview sample on the Digital Library Program web site. The only public showing of the photographs was the 1990 exhibition, “Steelmaker–Steeltown: Building Gary, 1906-1930,” which was described above.

### Audience and Users

The U.S. Steel photographs are housed in the Calumet Regional Archives at Indiana University Northwest in Gary, Indiana. Although a small portion of the photos have been exhibited publicly, published in an exhibition catalog, and published in books and articles about Gary and the Gary Works, few people have seen more than a small selection of the images. Presenting the entire collection on the Internet will improve dramatically access to the collection for the general public; students, grades 4-12 and postsecondary; and scholars. Although scholars and local users can see the photographs in the Calumet Regional Archives, Web access will permit a broader range of users to use the photographs. Without geographical barriers, users from around the world will be able to see these important documentary photographs.

## Preparation and Preservation of the Collection

The collection totals approximately 1,600 8 x 10-inch black and white photographic prints with glass negatives and approximately 300 additional photographs without negatives. The prints are high-quality reproductions in good condition, which were contact printed from the negatives. We will digitize the prints.

## Ownership and Copyright Issues

The USX Corporation donated the “United States Steel Photograph Collection” to the Calumet Regional Archives. A “Deed of Gift Agreement” signed by Thomas Farrell of USX Corporation reads in part, “I understand and agree that my gift of the Property includes all rights, including literary rights and copyright.” There are no restrictions on this gift. Therefore, all photographs in the collection may be presented on the Internet.

## Goals and Objectives

The U.S. Steel Photograph Collection web site will preserve and provide improved access to the most significant collection documenting the establishment, growth, and development of the U.S. Steel Gary Works and the city of Gary, Indiana, during its first thirty-five years. The goals of the project relate to both preservation and access:

- Digital preservation of the photographs, the majority of which have only one print made from a fragile negative. Three hundred of the prints have no negatives at all.
- Access to all of the photographs on the World Wide Web, in an online environment that appeals to and is usable by a wide range of users.
- Access to digital versions of contextual material, such as articles written about Gary at the time it was founded.
- Online learning activities appropriate for students grades 4-12.

In order to meet these goals, the project has a number of objectives:

- Digitize the images in the U.S. Steel Photograph Collection.
- Create a web site for presenting these images.
- Digitize articles and other textual materials; write new essays especially for the web site.
- Create a “User’s Guide for Teachers.”
- Conduct usability testing with a broad spectrum of users, including students and the general public.
- Supply a printer to the Calumet Regional Archive that will be used to print study copies of the photographs, reducing wear and tear on the actual prints.

## The Plan of Operation

### Intellectual Access

The digital collection will be described to the item level. Each photograph will be accessible by a Persistent Uniform Resource Locator (PURL). The PURL will point to a Web page which contains a thumbnail image of the photograph. From this page, the user will click to access the reference version of the same image. PURLs will also be provided that point directly to the

thumbnail images so that these images may be incorporated into the results screen from searches of the collection. For an example of this type of presentation, see The Frank M. Hohenberger Photograph Collection at <http://www.dlib.indiana.edu/collections/lilly/hohenberger/index.html> or The Hoagy Carmichael web site at <http://www.dlib.indiana.edu/collections/hoagy/>.

Intellectual access will be provided through Dublin Core (DC) metadata, MARC records, and an online finding aid. Access to the collection on the WWW will be facilitated by the use of several full Qualified Dublin Core records to be integrated into the headers of the collection home page and the texts. One metadata record will be provided at the collection level, and one for each text document of any significant length (essay, article, book excerpts, and user guides). These Dublin Core records will provide access via subjects, creators, contributors, titles, descriptions, publisher, and so on, as well as contain other useful information about the document (e.g., coverage, language, type).

Once the Dublin Core records are created, a DC/MARC crosswalk will be used to generate MARC records. Each entity that has a Dublin Core record will also have a MARC record. Therefore, a collection-level MARC record will be created that points to the top-level page for the entire collection, and MARC records will also be created for the substantial text documents. On each of these MARC records for secondary documents will be Electronic Location and Access Fields (856) providing PURLs (Persistent URLs) for both the individual document and for the top-level page for the collection. The MARC catalog record will appear in the Indiana University online catalog (IUCAT) and in OCLC WorldCat. The MARC records will use Library of Congress Subject Headings (LCSH).

An item-level finding aid for the images in the collection will be created in Encoded Archival Description (EAD) format, using version 1.0 of the EAD document type definition (DTD), maintained by the Library of Congress and the Society of American Archivists. Users will either be able to browse the entire finding aid or search it using keywords. The search will retrieve a list of entries from the finding aid. These entries will contain descriptions and links to the digital objects.

### Intellectual Context

In order to provide an intellectual context for the digitized collection, introductory materials will consist of three sections: 1) the history of Gary, Indiana; 2) the history of the Gary Works of U.S. Steel; and 3) information about the collection itself. These three essays will be written by an historian hired for the project, who will be supervised by the Archivist, Calumet Regional Archives, Stephen McShane. The site will also feature reprints of full-text articles written at the time the Gary Works and the town of Gary were being built and later articles and book excerpts written by scholars of industrial history, the history of urban planning, and architectural history. The early articles are in the public domain. We will seek permission from copyright holders to reproduce the later texts. The essays and full-text resources will be SGML-encoded and fully searchable. The Web site will also include: a bibliography of primary and secondary sources related to the Gary Works, the town of Gary, Indiana, and the photographs; and links to related Web sites.

For grades 4-12 users, the Digital Media Specialist will assemble a team of teachers, representing the elementary and secondary levels, to create a "User's Guide for Teachers," with suggestions on ways teachers can use the Web site to teach U.S. history and Indiana history. These user guides will include suggestions for ways in which teachers might use the collection with students, sample exercises/assignments for students at all levels, and links to related information. The user

guides will be modeled upon the American Memory Project “Learning” page <http://memory.loc.gov/ammem/ndlpedu/index.html> and the National Endowment for the Humanities EDSITEment <http://edsitement.neh.fed.us/> lesson plans.

## **Digital Conversion Methodology**

### **Production Process**

The digital conversion of the *U.S. Steel Photograph Collection* will be performed in-house by Indiana University. All of the approximately 1,900 photographs in the collection will be digitized by scanning the photographic prints at high resolution using equipment in the Indiana University Digital Media and Image Center. The computer requested in the project budget is for this purpose.

The supplemental textual materials (essays, articles, and book excerpts) and user guides will be OCR scanned, edited and SGML-encoded following the Text Encoding Initiative Guidelines. The text files will be indexed and fully searchable using OpenText software.

### **Format**

High-resolution 8-bit grayscale TIFF files will be scanned from each photographic print; GIFS and JPEG derivatives will then be created for use as thumbnail and reference images. Please see Appendix A for a table of image file formats and resolutions.

### **In-House Production**

All digital conversion and quality control will be performed in-house. To digitize the photographic prints, we will use a Microteck Scanmaker 9600XL flatbed scanner, capable of up to 600x1200 dpi optical resolution. Technical staff will perform quality indexing on 10 percent of the image files, examining both display and printed output.

## **Provision of Network Delivery and Access**

Ongoing World Wide Web access for the digitized collection will be provided by Indiana University. All images and structural/administrative metadata will be stored in the Digital Library Program's IBM Digital Library system, running on an existing IBM RS/6000 server. These servers were granted to IU by IBM in 1997 via IBM's Shared University Research (SUR) program. Loading of images and delivery of web access to images will be provided via Java-based software tools already developed by Indiana University for the Hoagy Carmichael Collection. The EAD item-level finding aid for the collection will be stored and made available using OpenText version 5 software, also presently installed at IU.

Indiana University has experience in mounting large digital collections on the WWW and providing sustained support for network access to these collections. For Internet access to those collections, please visit the Collections home page for the IU Digital Library Program <http://www.dlib.indiana.edu/collections/>. The most similar project undertaken by the IU Digital Library Program is The Frank M. Hohenberger Photograph Collection <http://www.dlib.indiana.edu/collections/lilly/hohenberger/index.html>. This Web site includes the complete finding aid for approximately 8,500 photographs housed in Indiana University's Lilly Library and a selection of 500 digital images. The Hohenberger collection successfully uses a

technical plan very similar to that proposed for the U.S. Steel project, with images stored in IBM Digital Library accompanied by an EAD finding aid.

### **Preservation and Maintenance of Files**

Access to networked information resources is supported at Indiana University by the data center services of University Information Technology Services (UITS). The UITS data center operates all day, every day to provide students, faculty, staff, and the international scholarly community with continuous access to university information resources. Through a regular program of upgrade and replacement, UITS maintains currency in hardware, software, and storage media. Information resources of long-term or permanent value are kept current as part of this upgrade and replacement cycle. UITS and the Indiana University Archives have participated in the research program of the National Historic Publications and Records Commission, studying means and methods of preserving digital content. To date, and in practice, our most reliable means of preservation has been a combination of routine content copying (to preserve against media decay), and periodic content conversion, as part of the equipment or application upgrade cycle (to preserve against hardware or software obsolescence). These practices, and the institution's commitment to maintaining the scholarly record, help assure preservation and continued access to networked information resources.

### **Evaluation**

The primary evaluative tool for this project will be usability testing, conducted by the UITS Usability Lab at IU Bloomington. Digital Library Program staff have been working with this lab to conduct usability testing of the Hoagy Carmichael Web site. The Usability Lab will be involved in the project from the beginning, guiding us in both formative and summative evaluation. We anticipate that their staff will conduct testing in schools, public libraries, and academic libraries. The Digital Library Program staff will evaluate the Web site for technical performance, while the Usability Lab will focus on ease of user and user satisfaction.

### **Expected Impact on the Community**

The project participants anticipate that the project will provide improved access to an important archival collection, contribute to the national efforts to digitize important cultural resources, and demonstrate to teachers, librarians, and users how a digital library project can provide primary resources to a wide variety of users. We are eager to work with teachers to make these resources more accessible to school-age learners through guided learning activities. The U.S. Steel Photograph Collection would be a valuable contribution to the growing number of digital collections that could be combined to create an Indiana Heritage site similar to the California Heritage site created by the University of California Berkeley <http://sunsite.berkeley.edu/CalHeritage/> and the American Memory site created by the Library of Congress <http://lcweb2.loc.gov/ammem/ammemhome.html>.

### **Primary Staff: Roles, Duties, Authority**

***Kristine Brancolini***, Acting Director/Associate Director, Digital Library Program. Oversee the grant and manage the project. She serves as project manager for the Hohenberger Project and she currently serves as Co-director of the Hoagy Carmichael Project.

**Jon Dunn**, Manager of Operations and Software Development, Digital Library Program . Provide technical assistance for the project. He is managing the technical aspects of the Hohenberger Project and he currently serves as Co-manager of the Hoagy Carmichael Project.

**Stephen McShane**, Archivist, Calumet Regional Archive. Coordinate the compilation and creation of contextual materials on the Web site. He has extensive knowledge of the U.S. Steel Photograph Collection and was responsible for the grant-funded project in 1990 that resulted in the only public exhibition of the photographs.

**Aaron Reichert**, Digital Media Specialist, Digital Library Program. Design and program the web site; oversee the creation of the user guides and the usability testing. He has designed all of the Digital Library Program Web sites and is currently overseeing the usability testing of the Hoagy Carmichael site.

### **Time Frame for the Project**

The project will be completed in ten months, running from September 1, 2000-June 30, 2001.

#### Phase 1: Preparation

September 1, 2000-October 31, 2000	Purchase and install computer for scanner. Purchase printer for Calumet Regional Archive. Hire .5 FTE Digitizing Technician.
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#### Phase 2: Digitization

November 1, 2000-December 31, 2000	Digitize photographs and perform quality control.
January 1, 2001-January 31, 2001	Digitize the texts, OCR process them, then edit and SGML-encode them.

#### Phase 3: Contextual Material

September 1-December 31, 2000	Make final selection of texts to be digitized for the site. Clear copyright permissions for any texts that are still protected by copyright.
January 1, 2001-April 30, 2001	Write essays, compile bibliography for the site and relevant URLs for related information.

#### Phase 4: Web site

September 1-January 31, 2001	Begin working with Usability Lab to plan Web site and initiate the design process. Design the Web site and begin usability testing with sample images.
February 1, 2001-April 30, 2001	Formative evaluation of the Web site.

Phase 5: Evaluation

May 1, 2001-June 30, 2001

Summative evaluation of the Web site.

Write final project report.

**Budget**

**Budget Narrative**

Indiana University will contribute significant matching funds to this project, primarily for staff and equipment support.

Equipment

The Digital Library Program has the necessary scanners to complete the project, however, for the purposes of this project, it is necessary to create a separate workstation. Therefore, we are requesting a personal computer, which we will use with an existing scanner. We already have the necessary software.

- Dell Computer:

OptiPlex GX110 Mini-Tower: Pentium® III processor, 500MHz with 512K half speed cache & Int NIC P50X11T - [460-4305]

Memory: 256MB Non-ECC SDRAM (1DIMM) 256N - [311-2540]

Keyboard: Performance (Mechanical) PK - [310-2548]

Monitor: 21" (19.8" viewable) Dell P1110 Monitor P1110 - [320-0382]

Video Card Upgrade: NVIDIA M64 16MB PCI Video Card for Win9X and WinNT only NVPCI - [320-3145]

1st Hard Drive: 13.6GB 5400rpm EIDE Hard Drive 13 - [340-6146]

Floppy Drive or SuperDisk LS-120: 3.5" 1.44MB Floppy Drive 3 - [340-3224]

Operating System: Windows NT 4.0 Workstation SP5 with CD using FAT16 SP5EC - [420-1780]

Mouse: Microsoft IntelliMouse (wheelmouse) for Windows 9X and Windows NT IM - [310-3556]

Optical Devices (CD-ROM and DVD-ROM): 20/48X EIDE CD-ROM CD48 - [313-0619]

Sound Card: Sound Blaster AudioPCI (64 Voice) for use with Optical Device SB64OP - [313-0567]

2nd Hard Drive: 13.6GB 5400rpm EIDE Hard Drive 13A - [340-6148]

Price: \$2,518

- Tektronix Solid Ink Color Printer:

Phaser 480

Although all of the photographic prints are black and white, a color printer is necessary to give black and white images the correct tone. This printer would be installed at the Calumet Regional Archive in order to make high-quality prints from the digital files, eliminating the need for the vast majority of users to handle the prints. These images would also be reproducible.

Price: \$2,928

## Personnel

In addition to the Indiana University personnel described above, the following staff members are necessary.

Working four hours per day, we estimate that it will take 8 weeks for the Digitization Technician to digitize the photographs. It will take another month for this person to digitize and encode approximately 200 pages of textual material.

20 hours per week @ 10.75 per hour for 12 weeks = \$2,580

Usability testing will begin with the design of the web site and end in the final month of the project. We will work with the Usability Lab of University Information Technology Services (UITS) to conduct the evaluation. We have worked with them on the Hoagy Carmichael Project. 60 hours @ \$50.00 per hour = \$3,000

We will hire 3 teachers, one who teaches fourth grade, one who teaches middle school, and one who teaches high school, to assist in evaluating the web site and write the online user's guides. 3 teachers, 40 hours @ \$25.00 per hour = \$1,000 each = \$3,000

We will hire a research assistant, who will work in Gary and report to Steve McShane, to write an interpretive essay about the photograph collection, compile a bibliography of supporting materials, and compile URLs for important related web sites. This individual will also finalize the list of copyright-protected articles and book excerpts for the Web site, then contact copyright holders seeking permission to reproduce these resources as searchable texts on the site. 80 hours @ \$25.00 per hour = \$2,000

**TOTAL LSTA Request \$19,664**

## References

Fuller, Henry B. (1907) "An Industrial Utopia: Building Gary, Indiana, to Order," *Harper's Weekly*, 51 (October 12): 1482-1483, 1495.

Lane, James B. (1978) *City of the Century: A History of Gary, Indiana*. (Bloomington, IN.: Indiana University Press).

Mohl, Raymond, and Betten, Neil. "The Failure of Industrial City Planning: Gary, Indiana, 1906-1910. *Journal of the American Institute of Planners*, 38 (July 1972): 203-214.

Moore, Powell A. (1959) *The Calumet Region: Indiana's Last Frontier*. (Indianapolis, IN.: Indiana Historical Bureau).

**APPENDIX A  
IMAGE DEFINITIONS AND CHART**

Photographs

Thumbnail:	a small image presented with the bibliographic or index record to allow users to judge whether they wish to take the time to retrieve a higher quality image.
Tonal depth:	8 bits per pixel
Format:	GIF
Compression:	Native to GIF
Spatial resolution:	Circa 200 x 200 pixels
Reference:	a higher-quality, larger image to provide the user with sufficient information and legibility for study.
Tonal depth:	8 bits per pixel
Format:	JPEG
Compression:	8:1
Spatial resolution:	750 x 600 pixels
Archival:	highest quality image with lossless compression for permanent retention.
Tonal depth:	8 bit grayscale
Format:	TIFF
Compression:	LZW (or its successor)
Spatial resolution:	3000 x 2400 pixels

