

## Millennium Project

### History Activities

After the Duderstadts left the presidency, it was natural that one of the major activities within the Millennium Project would become an effort to document the history of the University of Michigan. The early contributions were a series of books that utilized the powerful technologies of desktop publishing and digital photography both to contribute to major historical milestones such as the 150th anniversary of engineering education at Michigan and the evolution of its campus over the past two centuries.

In addition, they were able to utilize the unique resources of the Duderstadt Center to develop new ways to present this history, including three-dimensional virtual reality simulations of the Michigan campus in various eras, a highly detailed computer model of the historical evolution of the campus (Mort's Map), and an array of web-based databases intended to document the contributions of the University's thousands of faculty members, students, and staff.

#### Documenting the University's History

Both the mission of the Millennium Project and its location in the Duderstadt Center provided a unique access to rapidly emerging digital technologies that were ideal for supporting history projects. Anne recognized that the challenge of capturing the rich history of a complex, consequential, and enduring institution such as the University of Michigan is considerable. To be sure, there are numerous scholarly tomes and popular histories of the institution, its leaders, and its programs. Yet the history of the University required much more. In fact, Michigan's history, those characteristics evolving over time that have determined its distinctiveness and shaped its impact on society, assume the form of a saga requiring many forms of narratives, words, images,

music, and even digital simulations!

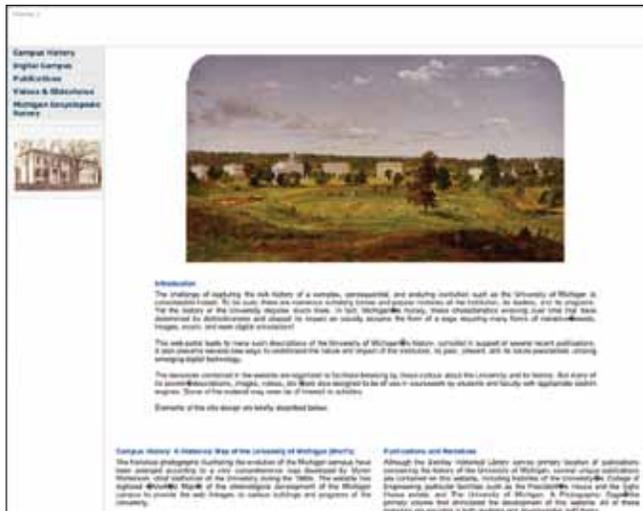
So where to begin? One of the purposes of the Millennium Project was to explore the use of emerging digital technologies in the development of new approaches to instruction. Anne's first effort was to develop a more interactive way to explore and understand the history of the University's campus. But she first needed to gain a better understanding of the history of the Michigan campus itself. So she turned to Fred Mayer, University Planner, and Paul Spradlin, Director of Plant Extension (new construction), both of whom immediately replied: "You need to look at Mort's Map!"

#### Mort's Map and Campus History

During the 1960s, Myron Mortensen, the chief draftsman of the Plant Department, had researched the history of every building on the campus and drawn a very detailed map showing the historical evolution of the Ann Arbor campus from its origin to the 1960s. Using "Mort's Map", Anne worked with undergraduate engineering students in the Millennium Project to develop a web version of this map that enables one to use a timeline display and accompanying narrative to describe the evolution of the campus throughout its history. She then linked the digital maps to hundreds of historical photographs from the Bentley Library to illustrate the evolution of the campus. The Mort's Map website can be found at:

<http://umhistory.dc.umich.edu/mort/>

But Anne was interested in going beyond this. During our years in the presidency there had been a significant effort to develop digital representations



### The Web Portal for Campus History

of the contemporary campus that could be used in campus planning. In fact, the Plant Extension Department, under the leadership of Paul Spradlin, had assembled a quite sophisticated team (including the use of programmers in Russia) to build these digital representations of the campus. Our goal was to build similar digital models that would describe the historical evolution of the campus, beginning with the earliest campus in 1836. We sought to explore several of these approaches, including a comprehensive 3D digital simulation of the campus and its evolution, virtual reality simulations, digital video and DVD-based materials, and sophisticated database methods for organizing and searching through scholarly materials. Working with Plant Department staff, our students were able to create a 3D virtual reality version of the campus for earlier eras that allowed both navigation as well as the development of videos. The website containing both the digital version of Mort's Map as well as the 3D simulations can be found at the website:

<http://umhistory.dc.umich.edu/>

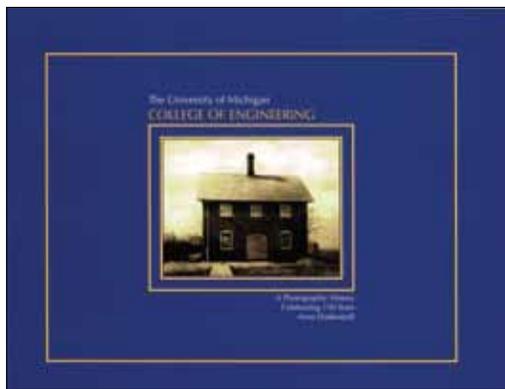
Unfortunately President Bollinger's appointment of a new VPCFO resulted in a massive turnover in the Plant Department, including many of those involved in the digital campus work, resulting in the termination of this University project and the loss of most of its software. While our work still remains, much of the early work of the Plant Department was purged, a



Mort's Map (by Myron Mortensen)

tragic loss for the University.

Anne next turned to a more traditional project to learn how to use the University's archive of historical photographs to develop books describing the evolution of the College of Engineering, which was preparing to celebrate its 150th of engineering education in 2004. Rather than simply writing the text and selecting the appropriate photographs for an experienced designer, she decided to master the process of digital design by learning to use Adobe's Creative Suite of applications: InDesign, Photoshop, Illustrator, Acrobat, etc. She then worked closely with the University Printing Service to design and develop her first major book on University history:



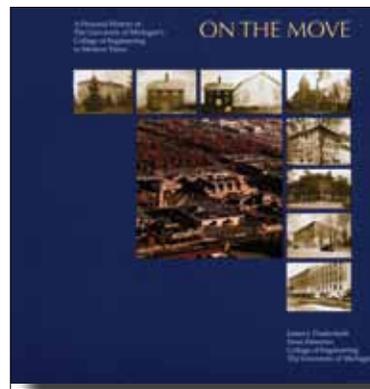
A Pictorial History of the College of Engineering

*A Pictorial History of the College of Engineering*

<http://catalog.hathitrust.org/Record/003884452>

Drawing on the resources of the Bentley Historical Library, University publications such as *The Michigan Technician*, *The Michigan Alumnus*, and *The University of Michigan: An Encyclopedic Survey*, but also on the vast writings, personal papers and photographs of two Engineering Deans, Mortimer Cooley and James Duderstadt, Anne was able to create a pictorial history of the college. Although this photographic essay was focused on the evolution of the campus of the College of Engineering, it also attempts to introduce the people and events that contributed so much to the College's history. It stitched together images with the words of members of the Michigan family who participated directly in the building of the College. This photographic history not only documented and honored the remarkable achievements of the College of Engineering during its century-and-a-half of leadership in engineering education but has provided a resource to guide those who will determine and benefit from its activities in the future.

Following Anne's lead, Jim also mastered Adobe's Creative Suite sufficiently to develop a personal history of his years as Dean of Engineering, a period that covered the move of the College of Engineering from the Central Campus to the North Campus of the University.



On the Move: A Personal History of the UM College of Engineering in Modern Times

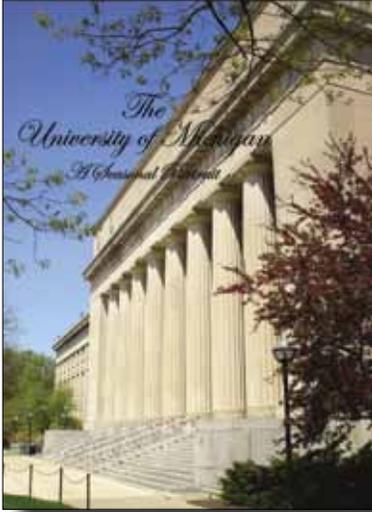
*On the Move: A Personal History of the University of Michigan's College of Engineering in Modern Times,*

<http://catalog.hathitrust.org/Record/003884451>

More recently, we have extended our skills to Apple's iBook Author software so that we could transform these books into interactive iBooks that can be downloaded directly from the Millennium Project website:

<http://milproj.dc.umich.edu>

Anne's next project involved a massive effort to utilize historical photographs to develop a book describing the history of the entire Michigan campus, including not only its buildings but as well the activities of its students, faculty, and staff. To learn more about how to handle the design and color schemes necessary for such a project, Anne decided to first use technology to create a more modest book of contemporary photographs (mostly taken by Jim) to illustrate the appearance of the campus during the changing seasons. This was similar to a book she had helped design during our presidency that we used as gifts to visitors, but in this case she did the entire project herself: design, photographic layout, digital development (again using InDesign), and finally working with the University Printing Services to produce the final project.



The University of Michigan:  
A Seasonal Portrait

*The University of Michigan: A Seasonal Portrait*

<http://catalog.hathitrust.org/Record/005121919>

Anne also produced several important photographic books concerning the President's House and the Inglis Highlands estate of the University, both because of her personal activities with these two historical buildings as well as because of the role that she played in their renovation. These books can be downloaded from the the HathiTrust website.

*The President's House of the University of Michigan*

<http://catalog.hathitrust.org/Record/003494187>

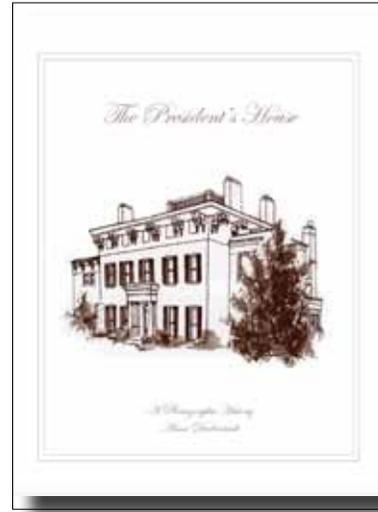
*The Inglis Highlands Estate of the University of Michigan*

<http://catalog.hathitrust.org/Record/011706>

Both books have been rewritten and are now available in iBooks format from the Millennium Project Website:

<http://milproj.dc.umich.edu>

With this experience, Anne turned back to the "Michigan Saga" book. The scale of this history project



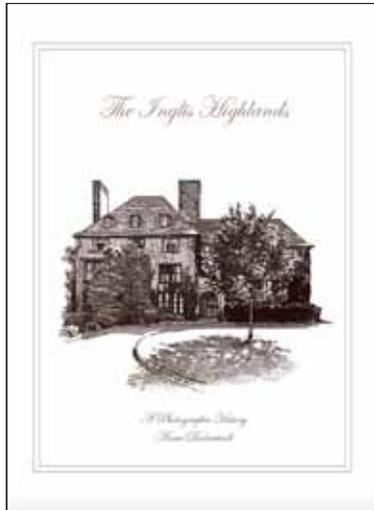
The President's House of  
the University of Michigan

was immense, not only consisting of over 1,000 high definition photographs, many of which she scanned herself, along with text that generated over 60 GB of data, pushing the limits of the Millennium Project computers. In fact, by the end of the project, Anne was using the most powerful computer in our complex. She worked closely with one of Ann Arbor's leading commercial printers, University Lithoprinters, to complete the project, including spending a day and night supervising the final printing runs to make certain that the design format and colors were correct. The entire project took over three years.

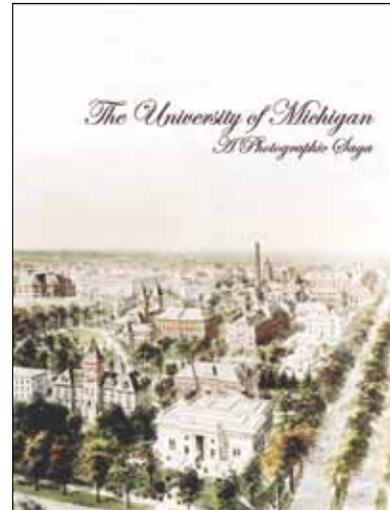
*A Photographic Saga of the University of Michigan*

<http://catalog.hathitrust.org/Record/005399524>

Although this project made extensive use of the photographic assets of the Bentley Historical Library, it also involved digitizing materials from many other Michigan publications and resources, including the *Michigan Alumnus* magazine, the *University of Michigan: An Encyclopedic Survey*, and student publications including the *Michigan Technic* and the *Michiganensian* yearbook. Books and articles written by Michigan faculty, students, and alumni were also of great value. In particular, the letters, diaries, and various papers of faculty and students provided a glimpse of what life



The Inglis House Estate



The University of Michigan:  
A Photographic Saga

was like in the early years of the University.

Of great value in reconstructing the early history and evolution of the Michigan campus was Mort's Map, a work created by Myron Mortensen, an engineer in the Plant Department until 1954 when he became Chief Draftsman. The map provides the footprint of all of the buildings that existed on the campus from the 1840s through the 1960s.

This photographic saga provides vivid evidence of the profound impact that the University of Michigan has had on the evolution of higher education in America and hence upon its state, the nation, and the world during the first two centuries of its long and distinguished history."

This book can also be viewed from the Millennium Project website:

[http://umhistory.dc.umich.edu/history/publications/photo\\_saga/Saga.html](http://umhistory.dc.umich.edu/history/publications/photo_saga/Saga.html)

### Creating New Digital Historical Resources

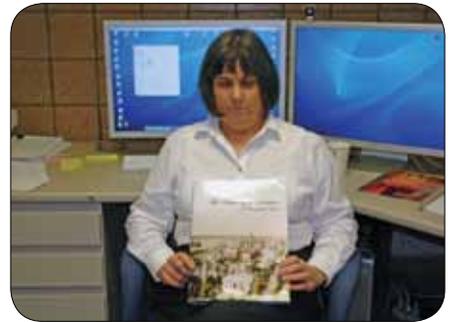
With one of the largest and most sophisticated university libraries in the world, the University had long provided leadership in providing new forms of access to its 8 million volume collection. During the 1990s it had led the effort to merge the catalogs of the 11 universities

of the CIC (the Committee on Institutional Cooperation of the Big Ten plus U Chicago). As digital scanning technology became more sophisticated, the University worked with the Mellon Foundation to build the JSTOR archive of journals in economics and American history (whose computers were located in the Media Union). Faculty members in its College of Engineering and School of Information worked on a major research project for the National Science Foundation to build a digital library for scientific materials.

Anne and I decided to extend our historical projects to demonstrative just how powerful the University's rapidly expanding digital technology environment could be in gathering and providing access to its activities, both present and past. The combination of the University's cyberinfrastructure environment, search engines such as Google, and most important of all, the leadership of the University of Michigan Library in digital archiving and distribution, gave Michigan a quite extraordinary opportunity to define the path these knowledge-intensive institutions should take in the digital age. Working closely with both students and staff of the Duderstadt Center, Anne played a leadership role in the development of these important new digital histories of the University.



To produce a high quality photographic volume concerning the history of the College of Engineering required mastering many skills, including the collection and arrangement of historical photographs through digital scanning and then careful edit using digital tools such as Photoshop. The actual layout of the book required desktop publishing skills (in this case, InDesign, Illustrator, and Acrobat). The next stage involved working closely with the printers. The final stage involved boxing and shipping the final copies to hundreds of readers, including the faculty of the College of Engineering.



The production of the “photographic saga” of the history of the University was considerably more complex, involving thousands of illustrations, extensive historical research, and the use of the full power of the Adobe Creative Suite to design, layout, and produce the final digital files for the printers (in this case, a high-quality commercial printer, University Lithoprinters, Inc.). Since the final digital files were over 60 GB in size, the computing requirements for this project were considerable. From initial concept to final product required roughly three years of continual effort! (Jim provided a small cake to celebrate success!)

## The UM 1817-2017 Web Portal

The first effort was to design and build a comprehensive web portal to a vast array of historical information about the University of Michigan, including summaries of the histories of its academic programs, visual material concerning its campus and activities, links to hundreds of historical documents, and databases providing both biographical information and memoirs of its faculty, staff, students, and alumni.

[http://um2017.org/2017\\_Website/Entry\\_Page.html](http://um2017.org/2017_Website/Entry_Page.html)

This website provides an array of links to access this rapidly growing collection of materials designed to be easily searchable and readily available in digital form. Included in these resources are:

- 1) Information about the many thousands of faculty members who have served the university since its earliest years, searchable and available as biographies, memorials, and photographs.
- 2) Histories of the myriad academic programs of the University—schools and colleges, departments and programs, centers and institutes, with a particular focus on the intellectual life and academic impact of the institution.
- 3) The evolution of the Ann Arbor campus of the University through the years, with interactive maps and histories of all of the major buildings and facilities of the University.
- 4) Information on the important role of staff members in the University, both through brief histories and short vignettes illustrating their remarkable talent, dedication, and diversity of roles.
- 5) Student life through the years through an array of historical documents.
- 6) Access to an interactive collection of memoirs by contemporary Michigan faculty members concerning the intellectual life of the University.



The UM 1817-2017 Web Portal

- 7) A vast collection of historical photographs and video materials made available in digital format.

In many of these efforts, Anne has been using the powerful resources of the HathiTrust, already the largest digital library in the world. We have persuaded the Regents of the University to release copyright control to provide full-text access to all University publications, books and periodicals, which have relevance to the history of the University. These can be found in a special search collection:

<http://babel.hathitrust.org/cgi/mb?a=listis;c=745985614>

## The Faculty History Project

The next project was even bolder. Anne led the effort in the development of a database providing information about all of the faculty members who have been associated with the University of Michigan since 1837, organized by their schools and colleges. Working



The Faculty History Project

with a very talented undergraduate, Alex Burrell, who quickly became experienced in programming in Drupal, Anne developed a website capable of accessing information on every faculty member who had ever worked at the University, with dates of appointment, fields, memoirs, and photographs, if available. In fact she personally scanned over 3,000 photographs from the Bentley Library and compiled information on more than 20,000 faculty members.

<http://um2017.org/faculty-history/>

As she noted in the preamble to the website, one can only understand the intellectual impact of the University of Michigan by understanding who its faculty members were (and are) and what they did (and are doing). To appreciate the intellectual vitality of this institution, it is necessary to trace the lives of its faculty members, their contributions, and their circles of discourse. One needs to capture their stories and link them to the University's academic programs, its schools and colleges, departments and institutes.

Yet this is a formidable challenge since many of the University's schools, colleges, and departments have only brief histories on websites or buried away in file drawers. Furthermore those histories that do exist are usually more concerned with buildings or enrollments or who was dean or chair than the intellectual life or achievements and impact of the faculty."



The Faculty Memoir Project

The broad intellectual span and size of the institution makes it hard to capture its history (or even understand its present nature) through conventional means such as popular histories or occasional papers. Instead it seems more productive to take advantages of the University's exceptional capacity in digital technology to build online resources that would evolve over time to serve those wishing both to understand and analyze not only the University's history but even its intellectual structure and impact today.

This Faculty History Website represents an attempt to begin this effort. The goal is eventually to include every faculty member who has been appointed at the University, working with the University's schools, colleges, and departments to fill in these databases with information such as photos, biographies, memorials, and even video oral histories for more recent faculty members.

The goal of this project is to document, remember, and celebrate those achievements of our faculty that have made Michigan a great university; to use such resources to reaffirm academic achievement and excellence as the cornerstone of the quality, strength, and impact of the university; and to rededicate today's faculty members and University leaders as faithful stewards for the remarkable legacy left by previous generations of Michigan faculty members, accepting the challenge of adding their own contributions to extend this legacy

Today the Faculty History Project has over 20,000 entries for the Ann Arbor campus (with ongoing additions and corrections). It has already become an invaluable tool for understanding the role of faculty at the University, and its open access availability leads to its frequent appearance in Google searches for people with Michigan ties. (Note: This includes only past faculty members up to the Bicentennial Year 2017 and not those who were currently active at the University at that time.

#### The Faculty Memoir Project:

A similar database was created to contain the memoirs of senior faculty members concerning the intellectual life and impact of the University.

<http://www.lib.umich.edu/faculty-memoir/>

The University of Michigan Faculty Memoir Project assembles the memoirs of senior University faculty members concerning both their personal academic work and their reflections concerning the intellectual life of the University more generally. It is intended both to capture the history of the Michigan faculty as well as to provide a vivid demonstration of the extraordinary impact that faculty members have had on the quality, strength, and impact of the University throughout its two centuries of service to the state, the nation, and the world.

This website has been designed to enable senior and emeritus faculty members to contribute reflections on their intellectual experiences through an interactive process that allows them to add and edit their biographies, curricula vitae, photographic or video materials, and memoirs, thereby helping build a rich and accessible resource describing faculty contributions to the University and broader society.

#### The Staff Memories and Memoirs Project:

A similar database has been developed to contain both the memoirs and memories of the staff of the University throughout its history.

<http://www.lib.umich.edu/staff-memoir/>

The University of Michigan Staff Memories and Memoirs Project assembles the memories and stories provided by members of the Michigan staff family over their long careers at the University as well as the memoirs for earlier staff members as they completed their years of service to Michigan. This project is intended both to capture the history of the University from the perspective of its staff while recording the contributions of earlier staff members, thereby providing a vivid demonstration of the great impact they have had on the institution.

In addition to providing a record of the Memoirs for earlier staff members, the website also enables senior and retired staff members to contribute directly their memories, stories, and reflections concerning the life of the University through an interactive process that allows them to add and edit their contribution.

Over time it is hoped that this website will become a rich and accessible resource describing the degree to which staff members have influenced the growth, evolution, quality, and continuity of the institution.

#### The Town-Gown Historical Maps Project

Anne has recently launched another project to develop interactive historical maps of the City of Ann Arbor with links to the historical photographs and descriptions of key buildings. The maps begin with the original platting of Ann Arbor in 1824 and then continue through each decade until the early 20th century. By using the power of IOS technologies to develop a "MapApp", this powerful technology will be capable of extension to the study of other historical maps. Key in her efforts has been the extraordinary collection of the University of Michigan Library's Map Collection and the programming skills of an extraordinary Michigan undergraduate, Nathan Korth.

<http://specular.dmc.dc.umich.edu/map/drag/>



The Ann Arbor UM MapApp Project



Expanding the Ann Arbor Map to show the campus