

Project A and Beyond: The Role of the Rockefeller Foundation in the Rise of Microfilm

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In 1927, the Library of Congress (LOC) started a comprehensive project of copying manuscripts related to the history of the United States and the Americas, stored in the libraries, archives and museums of several European countries. Internally referred to as “Project A”, research assistants ventured out in order to select and superintend the systematic photographing of masses of documents preserved in institutional and private collections throughout Europe. Project A was financed through a substantial grant¹ from the Rockefeller Foundation (RF) for an initial period of seven years and resulted in over three million still images. The LOC made ample use of microphotography, a photographic technique that was not new, but subject to major improvements starting in the 1920s.² These improvements concerned the camera and projector technology as well as the development of fire-resistant celluloid acetate film as a purportedly stable image carrier. Compared to manual copying and earlier forms of reproduction photography, such as Photostat duplication, the storage of visual data on light-weight and flexible 16mm, 35mm and 70mm film rolls enabled the reproduction of entire books, journals, newspapers, individual documents or bits of information.

In the framework of the reorientation of the Humanities program during the early 1930s, the Rockefeller Foundation played a decisive role in supporting microphotography as a scientific aid and as a medium for the diffusion and preservation of research material.³ As a consequence of the support for various pilot projects carried out between 1927 and 1945, the project reports and the internal and external correspondence held at the Rockefeller Archive Center (RAC) sketch a picture of the national and transnational efforts and networks that were established in order to promote microphotography as an information technology of the future. My research at RAC, which was conducted in 2015 and 2016, revealed that the RF’s contribution went well beyond the mere financing of individual projects, extensive though they were. The foundation assumed the role of what could be called a “discrete coordinator.” Through their long-established contacts in the library and scientific world in the US and abroad, and through the oversee offices, in particular the Paris Office (Daniel O’Brien), the RF acted as a focal point and at times also as

negotiator between the institutions, the photographic industry, individual researchers, technicians and emerging businesses.

From the Office to the Library

Prior to its application in the field of humanities, microphotography was already widely used in U.S. banks, insurance and retail companies as a means of producing a backup of customer data and providing copies of the same set of documents to the multiple branches of expanding companies. Eastman Kodak, the leading manufacturer of camera, film and projector technology, sought to expand its success in business administration to the use of photography in libraries and archives.

The very idea of using photography as a scientific aid and library technique reaches back to the 1870s, when national libraries and archives such as the British Library, the French Bibliothèque Nationale, the Staatsbibliothek in Berlin as well as some local research libraries not only collected photographs and set up photo libraries but installed darkrooms, hired professional photographers or allowed their readers to make their own photographs of research material. However, it was only around 1920 that a new interest in these ideas evolved. This resulted from the technological advances mentioned earlier and the growing use of “new media” in education and documentation. With the expansion of film, sound recordings and radio, photography experienced a renaissance in terms of its cultural, aesthetic and economic significance.

However, in the initial phase, namely the mid-1920s, Eastman Kodak as well as other existing and emerging manufacturers were cautious about entering the potential market of libraries and archives as the demand and user acceptance were still difficult to predict. It was precisely at this moment that the RF’s support for the implementation of pilot projects became crucial. The foundation helped in gaining

experience and developing best practices that could eventually be applied in the field.

The RF support should be considered as a continuation and expansion of its decade-long policy of transnational and transatlantic knowledge transfer. Parallel to the acquisition of foreign books, the support of European libraries and the exchange programs for researchers, the RF (alongside the US librarians and academics) hoped that the new technology would help to equip American libraries and archives with much sought-after research material. The joint efforts of the historian Samuel Flagg Bemis (1891-1973), the director of LOC's European Mission (and later Yale University professor), and the Head of the Division of Manuscript, J. Franklin Jameson, who previously had worked for the Carnegie Institution, resulted in the creation of Project A. Project A was the first comprehensive, transatlantic microfilming project that stemmed from the collaboration with European institutions. In a preliminary report, the Librarian of Congress Herbert Putnam stressed its "very far reaching significance" to "technicians and the community of research investigators",⁴ and as Jameson pointed out, Project A "provided the Library of Congress and American historical students with copies of material distinctly needed from the archives of all the countries of Europe[...]."⁵ Microphotography, as it was argued, was a way to complement the existing collections and to substitute material that otherwise would not be accessible. The LOC and the National Archives (founded in 1934), as well as several university libraries, such as Harvard, Yale, Duke and Chicago, which during the first decades of the twentieth century aimed at expanding their research collections, called for the support of the RF and the Carnegie Corporation for equipping on-site microfilm laboratories.

The RF's support was widespread and geographically far-reaching. To name a few examples:

In 1936, arrangements with the National Library and the Medical College in Peiping (Beijing) were made to reproduce Chinese classical works on medicine and medical records for the LOC, the Surgeon General's Library and the Institute of the History of Medicine at Johns Hopkins University.⁶ In 1937, the RF co-financed the exhibition of the latest microfilming technology at the World Exhibition in Paris

and also sponsored the first World Documentation Congress, held simultaneously in September 1937. The Congress brought together over 460 delegates, among them the librarians of the national libraries, the aforementioned Paul Otlet, the writer and author of “World Brain” H.G. Wells and several American representatives. The RAC holds ample information on the preparation, organization and technical challenges of the exhibition, as well as on the presentations and discussions held during the Congress.⁷ As expressed in correspondence between Robert C. Binkley, the chair of the organizing committee and James T. Shotwell,⁸ the director of the Social Science Research Council, the organizers held high expectations in the microfilm exhibition:

... there should result not merely an array of apparatus to be exhibited, but a report of progress already made in giving to new apparatus its actual revolutionary use in scientific documentation, library science and archival science. In other words, I think that we can present Europe by 1937 with something that will be as striking on the intellectual level as the Taylor system of scientific management or the Ford assembly line work in industrial technology. Our objectives should be no less high than this.⁹

The RF not only sponsored these two events, but actively assisted in shipping technical equipment from the US and China (where high-tech equipment was in use) to Paris. It furthermore helped in the negotiations with the French Bibliothèque Nationale, which provided library holdings for the microfilming demonstration at the World Exhibition with precious library holdings.

Parallel to these projects and events, the RF and the Carnegie Corporation funded several surveys, which were commissioned to scientifically assess and determine the potential of microfilm. In 1929, the American Council of Learned Societies (ACLS) and the Social Science Research Council (SSRC) established the Joint Committee on Materials for Research, headed by Robert C. Binkley, which analysed the costs and advantages of several new research and publishing techniques, including microphotography. Published in 1935, the report predicted a bright future for microfilm, due to its unequalled cost efficiency.¹⁰ Also in 1935, the US National Bureau of Standards issued a chemical analysis on the stability of cellulose acetate film that suggested its suitability for permanent records.¹¹ Further research was carried out at the New York Public Library on the user acceptance of microfilm, in particular on the viewing process. The latter was even subject to a Symposium

on Visual Fatigue, organized by the Committee on Scientific Aids to Learning in 1939, of which protagonists such as Vannevar Bush were part.

The venture that may best illustrate the stakes and the overlapping roles played by institutions, commercial companies and scholars of various disciplines was the British Manuscript Project. It was conducted between 1941 and 1945 and almost fully financed by the RF under the umbrella of the Emergency Program. In 1938, with the looming war in Western Europe in mind, the American Council for Learned Societies and the Association of Research Libraries called for the immediate implementation of a vast copying project that consisted in photographing “irreplaceable” research material and cultural heritage in Europe and, to a lesser extent, in China.¹²

The Emergency Program was carried under the auspices of the American Council of Learned Societies, which hired University Microfilm International of Ann Arbor (UMI), one of the first services specialized on microfilm in the United States.¹³ Its director, Eugene Power, who had already installed several reproduction cameras in British libraries, among others at Cambridge University Library and the British Library and who was part of the American delegation at the 1937 Paris congress, was appointed chief operator in Britain. Although the need for such a large-scale reproduction project was unquestioned, the cooperation with the British, as well as with other continental libraries and museums, often proved to be more complicated than the American side had anticipated. As Waldo G. Leland, the secretary of the ACLS (1927-1939) and later its director (1939-1946) and founding member of the International Committee of Historical Sciences pointed out in correspondence with David H. Stevens: “The custodians of depositories of important materials do not conceal their apprehension with respect to projects of mass copying.”¹⁴ Many librarians, especially in France, feared the loss of control over the contents of the materials in their custody. Leland called for “great tact” in negotiating these collaborations and suggested the long-term exchange of materials between American and European institutions. Beyond its financial support, the RF’s soft power in this matter consisted in activating its contacts in the scientific and library world. These were the result of various previous collaborations, such as the contribution to the construction of new library buildings in the UK or the systematic acquisition of books from British and continental publishers. Through the RF, the

project was subsequently approved by John Forsdyke, the director and principal librarian of the British Library and Owen Frederick Morshead, the director of the King's Library at Windsor Castle, which encompassed, among others, one of the largest private collections of drawings.¹⁵ It needs to be noted, however, that most of these collaborations between US institutions and their European counterparts were asymmetric in the sense that the master negatives would be sent to the US and only a positive copy remained in Europe. As Llewellyn Raney, the librarian of the University of Chicago put it in a letter to Stevens: "The great threat of war does seem to offer the opportunity of bringing dramatically and effectively home the idea of reproducing source treasures for safe deposit elsewhere."¹⁶

Projects like the Emergency Program carried out during WWII undoubtedly accelerated the large-scale testing of microfilm. They also provided a clearer idea of the possibilities and practical applications of the medium, as well as the resources and the transatlantic and institutional collaboration needed for the successful implementation of microfilming. Again, the RF papers (and to a lesser extent the Carnegie Corporation papers) reveal that without the continued financial support and involvement of the Rockefeller Foundation, the microfilm technology as a scientific aid would not have succeeded; the many technological insufficiencies that plagued the medium in the early decades may very well have led to its cessation.

¹ The donation amounted to 450,000 USD. Letter Putnam to Stevens, February 24, 1933, Box 242, Folder 2888, RG 1.1. 200 R, Library of Congress, Project A, Rockefeller Foundation records, Rockefeller Archive Center.

² In the context of this report, the term microphotography is used as an umbrella term for all micro-reproductions on transparent film, which alongside to the film reel include aperture cards and microfiche. The American Library Association at its 1936 meeting defined microphotography as follows: “Photography on a greatly reduced scale (compared to Macrophotography, i.e. reproduction on an enlarged scale, and Photomicrography, the photography of minute objects as magnified by a microscope attached to the camera). Any photograph so small as to require visual aid to discern its features may be called a microphotograph.” See M. Llewellyn Raney, ed. *Microphotography for Libraries: Papers presented at the Microphotography Symposium at the 1936 Conference of the American Library Association* (Chicago: American Library Association, 1937).

³ William J. Buxton, “John Marshall and the Humanities in Europe: Shifting Patterns of the Rockefeller Foundation Support,” in: *Minerva* 41, 2003, p. 133–153.

⁴ *Idem*, note 1

⁵ Report by Jameson, March 20, 1934, Box 242, Folder 2889, RG 1.1. 200 R, Library of Congress, Project A, Rockefeller Foundation records, Rockefeller Archive Center.

⁶ Folder 85 to 87, Box 9, Series 601, 1936–1943, RG 1.1. Microphotography, Rockefeller Foundation records Rockefeller Archive Center.

⁷ Folder 2476 to 2481, Box 2008, 200 R, 1936–1943, RG 1.1. American Library Association, Rockefeller Foundation records Rockefeller Archive Center; Folder 221 and 224, Box 16, Series 216, RG 1.1. Illinois – Humanities and Arts, University of Chicago – Microphotography – Reprints & Pamphlets, Rockefeller Foundation records, Rockefeller Archive Center.

⁸ See also: Harold Josephson, *James T. Shotwell and the Rise of Internationalism in America* (Associated University Presses, Cranbury, London, 1975).

⁹ Letter by Binkley to Shotwell, March 19, 1936, Folder 2053, Box 213, Series 304, Microphotography 1935–1939, General Education Board records, Rockefeller Archive Center.

¹⁰ Robert C. Binkley, *Manual on Methods of Reproducing Research Materials* (Ann Arbor: Edwards Brothers, 1936): 183–200.

¹¹ B. W. Scribner, “Resumé of Research at National Bureau of Standards on Materials for Reproduction of Records,” *Journal of Documentary Reproduction* 1, n. 1 (Winter 1938): 37–38.

¹² The documents that bear witness of the urgency of the matter are numerous. Both, the American Library Association and the American Council for Learned Societies solicited support from the RF. See, for example, Folder 2480, Box 208, 200 R, 1936–1943, RG 1.1. American Library Association, Microphotography, Rockefeller Foundation records, Rockefeller Archive Center.

¹³ University Microfilm International started out as a one-man company in 1936. It was bought by the Xerox company in the 1960s and later became a part of Proquest, a global information content company specialized on applications for libraries and research.

¹⁴ *Idem*, note 7.

¹⁵ Folder 750 to 752, Box 401, R57, 1941–1944, RG 1.1. King’s Library Windsor Castle – Microphotography, Rockefeller Foundation records, Rockefeller Archive Center.

¹⁶ *Idem*, note 12.