THE INTERNATIONAL EXPOSITION AND THE WORLD DOCUMENTATION CONGRESS, PARIS 1937

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The International Exposition in Paris in 1937 was of interest to librarians and documentalists for two reasons: an American exhibit of a major microphotographic copying project directed by Herman H. Fussler, and the meeting of the World Congress for Universal Documentation. These two events mark noteworthy stages in the development of library technology and international organization for purposes of bibliographic control.

The World of 1937

In 1937 when the International Exposition of Arts and Technology in Modern Life opened in Paris on May 24, international relations were in a perilous state. In two years the Second World War would break out. Already Hitler had reoccupied the Rhineland. Mussolini had defied the League of Nations and had conquered Abyssinia. Civil war raged in Spain. Japan invaded China.

In France the divisions between parties of the Right and of the Left had led to violent civil disturbances. In 1936, the socialist leader Leon Blum formed a government of the Front Populaire, a coalition of radical and socialist elements. He secured an end to the strikes that were paralyzing industry. He could not, however, achieve the support of the financiers and industrialists necessary for national fiscal reform, and the country fell into near bankruptcy. Early in 1937 there were confrontations at Clichy between the police and communist demonstrators that
left five dead and 200 wounded. Further disturbances were followed by more strikes and a deepening depression.

The year 1937, however, was not in itself a particularly dramatic year either for France or for the world. Rather it was just another year in that eventful decade during which, helplessly it seemed, international order disintegrated into war. Yet, in the spiritual life of the nations, there welled up irresistibly still a longing for peace, a hope of renewal in national and international institutions, a vision of civilization at once enlarged and refined through the growth and sharing of knowledge, an indomitable if ultimately impotent faith in the power of the intellect, in the necessity of international association, in the inescapable reality of mankind’s interdependence. Thus it was that an exposition held in Paris in 1937 “to unite the nations in peace and to celebrate the progress of Art and Science” [1, p. 108] could attract some 33 million persons [2, p. 430]. Thus, too, a World Congress of Universal Documentation convened on the occasion of the exposition, supported by the League of Nations Organization for International Intellectual Cooperation, and bringing together 460 persons including the official representatives of governments and international associations [3, p. 5] was not inevitably an absurdity.

The International Exhibition

Forty-four governments responded to the French request to participate in the exposition, a record number it was claimed [4, p. 2]. The date of the opening of the exposition by Albert Lebrun, president of the French Republic, had originally been set for March 2, 1937. The industrial disturbances and financial crisis that racked the country at the beginning of the year forced a three-week postponement [4, p. 164]. An even longer delay occurred in completing the arrangements in the right wing of the Trocadéro for the exhibits associated with class II of the exposition “libraries and literary phenomena” [5]. For class II to be an appropriate part of that premier group of exhibition classes that centered on questions of the intellect, scientific discovery, radio and the cinema, many of which had separate pavilions and received considerable public attention, Julien Cain, administrator general of the Bibliothèque nationale and president of class II, hoped to achieve something more than a museum of rare and costly books. He observed that, “written, printed, bound, illustrated, a book ends up in a public or private library” [5]. In keeping with the theme of the exposition, what was needed was a “Palace for Literature, the Book and Graphic Arts and Crafts”; part of the exhibition to be mounted there would be dedicated to professional
librarianship. Developing the exhibits and arranging them in the Trocadéro were not completed until the end of July.

There were four major parts of what was known as the library exhibit. First an actual library was set up with shelves along one wall, the collection divided by broad subject classes, various kinds of tables and chairs provided for readers. A second part dealt with individual libraries in France and around the world. Here photographs and plans were used to create murals, or were mounted in large movable panels which were hinged together at the wall at waist level to form what one might call display codices. A third section was dedicated to matters of professional librarianship. Here the displays dealt, among other things, with the creation of various kinds of catalogs, a number of professional associations, and examples of what today are called library "outreach" activities to hospitals and other agencies. Finally there was a section dealing with library equipment and machinery. In an upstairs gallery was set out a selection of wooden furniture for various library purposes. In the main hall, there were models of French and German book-conveyer systems. A French engineer exhibited "a new apparatus for the disinfection and sterilization of books by means of a blade-shaped bacteria-destroying gaseous jet of formic aldehyde acting in an enclosed circuit" [6, p. 628].

In addition to these exhibits were two stands devoted to microphotography. One showed equipment in use in the Bibliothèque nationale. This consisted of one of six exemplars of a camera constructed in Paris in a small shop near the Pasteur institute; the camera was designed by Ather- ton Seidell, at that time a professor in the National Institutes of Health in Washington, and L. de Saint Rat [7]. The other stand was much more interesting. It contained two cameras and a complete laboratory for processing film. What set this exhibit apart was that the cameras and laboratory were in continuous operation on a major microphotographic copying project during the entire exhibition. The stand was an American one. The equipment was provided by the University of Chicago, which also lent a member of its staff to organize and carry out the whole project. This is how Herman H. Fussler, twenty-three years old, happened to be in Paris in the spring of 1937.

The American Microphotographic Exhibit

The exhibit over which Herman Fussler presided in Paris had taken nearly two years of discussion to bring to fruition. The initial suggestion had resulted from an invitation extended to the American National Committee on Intellectual Cooperation by the International Institute of Intellectual Cooperation, the executive arm of the League of Nations
Organization for Intellectual Cooperation. M. Llewellyn Raney, director of the University of Chicago libraries, expressed the thinking that lay behind this invitation thus: “What the world needs above all is to work together. People in intellectual pursuits should lead the way. What better place for a demonstration than an international exposition. So why not set aside a great hall, assign each nation its sector and have all, in their several ways, bend ingenuity to visualizing the gain of displacing rivalry with dovetailed effort for the common good” [8, p. 151]. The American committee decided that microphotography was an appropriate subject for an exhibit for an occasion like the exposition. As Fussler remarked, “it was logically suggested that microphotography offered more hope of practical international intellectual cooperation than any other medium in the manner in which it could make the exchange of documents practical” [9, p. 104].

Microphotography had only recently become a subject of interest to the American scholarly and bibliographic community, but in some circles that interest had become ardent. The National Archives was exploring its use for the preservation of documents. The function of microphotography in the publication of research materials was being studied by a Joint Committee on Materials for Research of the American Council of Learned Societies and the National Research Council. The chairman of the joint committee, also a member of the American National Committee on Intellectual Cooperation, was Robert C. Binkley, who was closely allied in their mutual interest in microphotography with Watson Davis, the director of Science Service, an agency for the popularization of science. Davis had created a Documentation Division within Science Service in 1935 to explore the role of microphotography in enhancing scientific communication, and in the absence of any effective commercial interest in such developments, actually to sponsor the design and construction of improved microfilm equipment. An experimental microfilm interlibrary loan service, the Bibliofilm Service, had been set up in 1934 in the United States Department of Agriculture library. The camera used in this service, the management of which was taken over by the Documentation Division of Science Service in 1936, had been designed by Rupert H. Draeger, a lieutenant in the U.S. Navy who had been working closely with Davis. The American Library Association’s involvement with microphotography for library uses, in its turn, was formalized in a Committee on Photographic Reproduction of Library Materials, of which Raney was chairman. The committee was created in 1936 and sponsored the publication of The Journal of Documentary Reproduction, the first issue of which appeared in the spring of 1938.

Raney wished to create at Chicago a microphotographic laboratory, of which a small machine shop would be a component, where experimental
equipment could be built, used, and modified as necessary both for filming and for the “completely-mechanized continuous processing” of exposed film [10, p. 296]. It was perhaps not unexpected that, given Raney’s activities and the high national profile that they had brought him, in November 1936 after a long period of discussion, the University of Chicago should be asked formally by the American National Committee on Intellectual Cooperation to implement the microfilm exhibit idea, “lending staff and apparatus, framing the budget and conducting all negotiations” [8, p. 155]. To make the exhibit worthwhile, it was decided that it was necessary to find cameras that could “accommodate high reduction ratios and long footages”; all the camera operations would need to be “so coordinated in construction as to respond to a single light impulse and thus leave nothing to the human agent after the initial adjustment except pressure of button and turn of pages”; it was also necessary to find similarly mechanized processing equipment “to handle developing, fixing, and drying” [8, p. 153]. Above all it was also agreed that “the game was not worth the candle if apparatus were merely to be set up and looked at. It must be a going concern” [8, p. 152].

For this to be possible, special arrangements were necessary in Paris. A location had to be found at the exposition where a laboratory could be set up with a darkroom, filtered running water, electric power, and temperature control. The laboratory would need to be both secure to protect the equipment and the materials being filmed yet accessible to passersby. Moreover, for the project to make sense it was necessary to film materials that were important and for this special cooperation from French libraries, especially the Bibliothèque nationale, would be necessary.

The details of this formidable program were in fact fairly quickly worked out. It was decided to microfilm French revolutionary journals and as far as possible such important long-running periodicals as *Le Journal des débats* or *Le Temps*, or those titles or segments that were not held in the United States by any library. The Rockefeller Foundation agreed to provide funds to support the project. Contracts were let for an automatic processor that would receive rolls of film from a camera at one end and deliver them ready for use at the other, and for a photorecord camera, that would “illustrate portability with the maximum of mechanization then possible” [8, p. 156]. Arrangements were also made with the navy for Lieutenant Draeger to construct one of his cameras, intended for high-volume newspaper work, for the project. This involved obtaining permission from the secretary of the navy and the postponement of a trip already planned for Draeger to China to film documents for the Library of Congress. He was instructed to go to Paris for six months to work on the camera for the American exhibit and thus avoided the sack
of Beijing by the Japanese. The exposition officials at first arranged for the project to be set up in one of the buildings of the new Musées d’Art Moderne that had been erected especially for the exposition. But as planning went forward for the library exhibit under the guidance of Julien Cain, it was decided to locate the American project in the Trocadéro. It seemed appropriate at this point to seek to change the sponsorship of the American exhibit, and this was passed from the American National Committee on Intellectual Cooperation to the American Library Association.

Raney made a quick trip to Paris to survey conditions and to arrange the details for the loan from the Bibliothèque nationale of the material to be filmed. Herman Fussler and Gladys Fussler, his wife, who like him was a librarian with a library degree from the University of North Carolina and who was to act as secretary and bibliographer for the project, sailed for Paris early in April 1937. With them went crates containing Recordak and Optigraph reading machines; Lieutenant Draeger’s camera, still in the process of construction; the automatic film-processing machine and “such miscellaneous equipment as would be necessary for the running of the equipment and darkroom, as well as a substantially complete machine shop” which Draeger needed to finish his camera [9, p. 105]. In Paris they conferred briefly with Raney. The workshop for Draeger was housed in the Maison de Chimie, where the other equipment was set up until work on the Trocadéro was completed.

The delay in the opening of the library exhibit in the Trocadéro was welcomed by the Fusslers. The new, specially designed equipment for the exhibit had not arrived in Chicago in time to be tested; in Paris, after the long sea journey, it needed both to undergo repair and to be adapted for installation in the Trocadéro. In fact, the delay in completing the Draeger camera was so great, that it was in operation only for the final month of the project. Problems with the bearings in the automatic film-processing equipment plagued the operation throughout: contrary to specifications, the balls in the bearings were of brass and were corroded by the chemical baths; it proved impossible to secure them in stainless steel in appropriate sizes in Paris, so they had to be continually replaced.

Despite these and a variety of other problems, the exhibit was a huge success. Each day or so, Gladys Fussler brought materials in a taxi from the Bibliothèque nationale. By the end of the project over 200,000 pages had been copied in full view of passersby; the positive film copies were made available to any library that wished to order them. Reading machines, adjacent to the cameras, were constantly used by interested spectators. Important groups and individuals studied the work: the president of the Republic was one; the Comité international des bibliothèques (the executive body of the still fledging International Federation
of Library Associations) and the World Congress of Universal Docu-
mentation were given special demonstrations. On the occasion of the
visit of the World Congress of Universal Documentation, the library
exhibit wing of the Trocadéro was closed to the public, and the Bib-
liothèque nationale gave a luncheon for the delegates gathered just
beyond the counter of the American exhibit. In the award of exhibition
honors for class II, the American Library Association and the University
of Chicago were both given a “grand prix”; gold medals went to Draeger
and the companies that had constructed the equipment, and a silver
medal to Herman Fussler as a “co-operator.”

The World Documentation Congress

The idea of documentation as a field of study and a professional occupa-
tion originated in the work of Paul Otlet and his colleagues in Brussels.
They had founded the International Institute of Bibliography (IIB) in
1895 and under its auspices had begun to compile a Universal Biblio-
graphic Repertory. The Universal Decimal Classification, derived from
the Dewey Decimal Classification but modified in a number of ways, was
elaborated over a period of ten years or so and was used to provide
subject access to the repertory. During this period and later, in a series of
seminal papers [for example, 11–13] Otlet developed his conception of
bibliography into what he called “documentation.” He wanted to go
beyond books, journals, catalogs, and libraries to embrace in a new
system of organization, with new and sophisticated modes of intellectual
access, all documents, whatever their format, that contributed to our
knowledge and understanding. He hoped to find ways of transforming
the universal catalog, ceaselessly proliferating during those years, into
what he called a Universal Documentary Encyclopedia. For this to be
successfully accomplished practically a universal network for document-
tation was needed and, theoretically, a fuller understanding of the
nature and the interaction of the parts and processes of documentation
was also necessary. Very early Otlet envisaged an important role for
microphotography in his various documentary schemes [14], and he was
to come back again to its potential for improving scholarly communi-
cation [15]. Later he was to speculate about the interconnections of the
radio and cinema and even of television in the organization and dissemi-
nation of knowledge [16]. In 1931 the International Institute of Bibliog-
raphy changed its name to become the International Institute of Docu-
mentation (IID) to reflect its more general interests.

When the League of Nations created a Committee on Intellectual
Cooperation in 1922 one of the first subcommittees it set up was to study
questions of bibliography. The committee attempted to come to an arrangement with the IIB to coordinate their bibliographical interests and work. Eventually a formal agreement was signed between the two organizations, although the agreement was never actually implemented to any degree. In 1925 when an executive arm of the league committee, the International Institute for Intellectual Cooperation (IICC), was founded in Paris, relations between the two institutes, because of personality conflicts and ideological differences [17, pp. 290–94, 304–12], degenerated to such a degree that for a number of years little productive contact occurred between them.

The interest of the League of Nations Organization for Intellectual Cooperation in documentation was rekindled, however, in 1932 when Jean Gérard presented a report on the Union Française des Offices de Documentation (UFOD) to the league’s Committee of Library Experts then meeting in Paris. Gérard, administrator general of the Maison de Chimie in Paris, was largely responsible for the creation of UFOD, which had been organized during 1931, and had been elected its president.

The discussion provoked in the Committee of Library Experts by Gérard’s report on UFOD:

On the one hand brought to light the urgent need of encouraging new connections established between documentation centres in the same country; and, on the other hand, set forth how desirable it would be for the International Institute [for Intellectual Cooperation] to draw upon the basis of suggestions made during the discussion, the documents that had already been submitted, and the requests received during the year, a memorandum to be submitted as soon as possible to the principal national centres already in existence, in order to get their advice and suggestions. The material thus compiled would be useful for subsequently drawing up a working programme dealing with the problem of Documentation within the frame-work of the Organization for Intellectual Cooperation, and in connection with already existing bodies. [18, p. 72]

It became clear from a preliminary inquiry in 1932 of documentation centers throughout the world and then a more formal survey in 1933, that “the first requirement . . . was that of an international Guide to Documentary Information Services, clearly indicating the scope and object of documentation as well as mechanism [sic] for rationalization. Such a work, it is considered, would greatly facilitate the organization of a universal and rational system of documentation” [19, p. 24]. A meeting of experts in Paris in November 1933 examined a scheme proposed by Gérard for such a guide. Eventually, in July 1935 a “voluminous” draft, Guide international de documentation, was submitted for discussion and comment to the Committee on Intellectual Cooperation and to the Fortieth Anniversary Congress of the International Institute of Documentation meeting in Copenhagen. The result must have been some-
thing of a shock. So strong were the misunderstandings and the opposition provoked by the draft Guide that nothing the IIIC could do was able "to reconcile the different points of view" and win "general acceptance" [20, p. 180].

The disagreements and conflicts over the Guide were partly an expression of deep-seated problems in the IID. In the early 1930s it was torn by a struggle for a succession of leadership and for organizational reform. Younger men were questioning, and ultimately repudiated, the philosophical underpinnings for its work that Oplet had propounded. After 1932 the influence in the government of the IID of Oplet and La Fontaine, the cofounders, was very much curtailed, though it was not until 1939 that, elevated to the ceremonial office of honorary vice-presidents, they ceased to be secretaries-general. Nevertheless, Oplet was an articulate figure of considerable eminence, and there were many whom he had inspired professionally and who also offered him considerable loyalty; thus his opinions about many of the changes that were occurring and his distress were not without effect. At issue was a range of intricate, difficult problems: the place of the Universal Bibliographic Repertory in the work of the IID; the place of the institute itself in the complex of organizations Oplet and La Fontaine had created in Brussels and called "Mundaneum"; the relationship of the institute to the International Office of Bibliography, originally a headquarters for the institute and partly subsidized by the Belgian government; who owned the copyright to the Universal Decimal Classification. To these issues Jean Gérald, separately in papers to meetings of the IID's conferences and through his influence on the work for documentation of the IIIC, had inevitably added others. He had particular ideas about the national organization, as expressed in UFOD, that was needed to advance the cause of documentation; he also argued for the creation of an International Union for Documentation. Both Gérald and the preliminary league documents showed ignorance of some of the achievements and the recent changes in the IID; they appeared in some respects to be suggesting competing or at least alternative organizational possibilities. Thus, to the internal conflicts were added external complications that further divided the IID and created the appearance of insoluble problems outside it. The IIIC's Guide international de documentation in 1935 simply provided a focus for the passions that, over a period of several years, had gathered around a number of organizational and technical matters of documentation.

The World Congress of Universal Documentation, then, was potentially an ideal form for identifying and perhaps defusing some of these curiously divisive issues. Indeed in the Institute for Intellectual Cooperation's journal the congress was described as representing an assembly of
“a kind of Estates General of Documentation,” meeting in “conditions of absolute independence and autonomy” [21, p. 68]. The occasion of the Paris exposition was thought to be particularly felicitous for such a congress. As Jean Gérard, president of the congress’s organizing committee, remarked, “the promoters of the International Exposition of Art and Technology wanted its program to encompass whatever dealt with the expression of thought, the conservation of knowledge, and the diffusion of understanding. A Congress like ours could not find a more appropriate occasion. . . . Documentation is the basis of intellectual production. It is, in all areas, one of the principal instruments of international cooperation” [22, p. 27].

Representatives of thirty-one governments and of forty-eight international organizations were among the 460 delegates who assembled for the congress in the rooms of the Centre Marcelin-Berthelot in the Maison de Chimie. The official American delegation to the congress consisted of seven persons. Among their number were Herman Fussler; Douglas Waples, professor in the University of Chicago Graduate Library School; and Watson Davis, director of Science Service in Washington and head of the delegation. The conference papers were issued as a preliminary volume of communications in order to serve as the basis for discussion at the conference which met in plenary sessions. Rupert Draeger and Atherton Seidell presented papers describing the microfilm cameras they had designed; Seidell also discussed the use of microfilm in the compilation of voluminous scientific data. Watson Davis’s paper was a brief account of the American Documentation Institute which had been organized in July 1937 as an independent body to take over the functions of the Documentation Division of Science Service. Herman Fussler examined recent progress in microphotography in the United States.

As it proceeded, the congress seemed to have three major aspects: technical discussions; the discussions about a world network for documentation; and the inspiring presence of Watson Davis, H. G. Wells, and Paul Otlet. The technical discussions were not very extensive and are now of little interest. They dealt with the use of documentation equipment, problems of conservation, and so on. Reflecting the interests of Watson Davis, who introduced the resolution, the congress recommended “That libraries and organizations of documentation should unite in a world net of microfilm (bibliofilm) services, preserving individual operation but utilizing such uniform methods, order forms, prices, etc., as to facilitate interchange of requests, and that such cooperation be organized through a national center in each country” [23, p. 107]. By and large, however, the American delegation took little or no part in the discussions of the conference as reflected in the Compte rendu, though the
contents of the American papers were summarized at the session on “Equipment and Tools” on the afternoon of Thursday, August 21.

There can be no doubt that the underlying purpose of the conference was to resolve the difficulties that had occurred internationally in the organization of documentation; to define appropriate forms of national participation in a “Worldwide System of Documentation” [22, p. 189]; and, as a result, to determine what would become of the IID. The discussion on these issues, which consumed all of Friday the 20th of August, seems to have been surprisingly frank given the nature of the occasion. The inadequacies of the IID organizationally and in terms of what it conceived its work to be were commented on critically. It was resolved, for example, “to ask the International Commission for Universal Classification of the IID to develop, in an objective spirit, the work it has already undertaken on the different classifications and on the theory and the general principles of classification, by securing a larger participation of organizations and personalities concerned with these problems . . .” [23, p. 106]. When the president of the IID, J. Alingh Prins from Holland, indicated that the IID as presently constituted fulfilled the desiderata for an international organization for documentation under discussion, he was, in effect, contradicted by Jean Gérard. Gérard observed “that the establishment of a network is not a question of statutes but of facts” [24, p. 82]. Gérard referred to the draft statutes for an International Union for Documentation that Otlet had elaborated and which had been adopted, but never implemented, in 1919 by the International Research Council. In Gérard’s view the IID fell far short of what he had proposed himself and what had been proposed then. After a solemn polling of the nations, and having been assured by its officers that the IID would accept its proposals, the congress formally invited the IID to transform itself into an International Federation for Documentation and to make other modifications in its statutes to give effect to the congress’s resolutions.

In retrospect, the congress was given a special quality by the presence of three men who could not have been more unlike. Watson Davis was a relatively young, brash, entrepreneurial American. H. G. Wells, the English novelist and social theorist, was world renowned but his voice, raised in warning of the perils of the time, was no longer heeded. And finally, there was Paul Otlet, white-haired, white-bearded, peering through small wire-rimmed glasses, bringing with him the whole history of the European documentation movement.

Davis was consumed by a vision of the possibilities that microfilm presented. In his address as leader of the American delegation at the opening session of the congress, he said: “I conceive that it is our purpose meeting here to bolster, protect and set up very practical chan-
nels for the exchange of intellectual intelligence [sic] between various parts of the earth” [25, p. 34]. Microfilm, as “one of the newer and most promising tools of documentation” [25, p. 35] in his view held out the prospect of revolution in scholarly communication. “The world’s documentation will become available to even the most isolated and individualistic scholar.” As a medium of “auxiliary publication” microfilm “will supplement other forms of publication and make accessible material of all sorts that cannot now be printed because of economic factors. It will make available valuable research data that now go unrecorded. It will make available out-of-print and rare books. It is adapted to the publication of photographs and illustrations” [25, p. 35]. Moreover, microfilm could at last make realizable “a world science bibliography,” and Davis suggested a procedure for coding and mechanically selecting microfilmed documents located in a world center in order to tailor, from the world bibliography, individual bibliographies responding to particular interests.

H. G. Wells had been writing for a number of years on what became known as the “World Brain.” Indeed, his several essays on the subject were to be published as a book in 1938 [26]. He was aware of and responded to Davis’s sense of the potential of microfilm. Referring to Davis, Wells observed that “Knowledge need not have the vulnerability of physical material centralization because the continually increasing facilities of photography render reduplication of our indices and records continually easier and cheaper. In these days of destruction, violence and general insecurity it is comforting to think that the brain of mankind, the race brain, can exist in numerous identical replicas throughout the world in Peru, Iceland, Wales and New Zealand as well as here in Paris” [27, p. 229]. For Wells the work of the documentalists whom he was addressing had a primary function: it provided “the rudimentary framework” for the world brain. “This new and great encyclopedia, this race brain whose foundations you are laying,” he conceived of as a “mighty structure for the comparison, reconciliation and synthesis of common guiding ideas for the whole world” [27, p. 229]. At a banquet on the night of Thursday, August 19, Wells suggested that this new encyclopedia, this new world brain, “would link all intellectual workers in a kind of community of spirit. Informing without making propaganda, directing without tyrannizing, it would not be the work of a group or coterie, but of all well-meaning men” [28, p. 10].

Otlet was present and participated in most of the sessions of the congress. He was described as making a “magnificent improvisation” at the closing session [29, p. 9]. Throughout the proceedings were expressions of appreciation of his achievements in the foundation and development of the IID. He spoke frequently. But it was clear that the organiza-
tion he had created was now moving away from him. His thinking as expressed in his public writings had become ever more abstract, theoretical, and unconcerned with practical issues of personality and organization. In the *Communications* of the congress is the text of a paper which he hoped would serve as a basis for its discussions [16]. It is typical of his writings at this time. A general discussion of documentation, its 8 pages are divided into 15 numbered parts; each part is further subdivided into numbered sections; each section in its turn divided still further by letters of the alphabet. The first part defines documentation; other parts deal with new forms of documents—photographs, films, discs; he moves to a discussion of synthesis in scientific thought and to the idea of a new form of encyclopedia. The last is a subject with which he had been concerned throughout his life. Wells merely recapitulated, in a way, Otlet's own ideas about this. He discusses documentation in relation to museums and the objects they contain; and he moves from organisms of documentation, to world organization, to a universal network for documentation. Unlike Wells and Davis, Otlet is no longer making a case for something, arguing a point, seeking to explain and convince. He is interested in setting out in a carefully developed arrangement all of the elements, the components of a complex situation; to flesh out briefly an encyclopedic schema; to prepare, almost, an entry for the new encyclopedia which he had attempted to envisage.

Such men as Davis, Wells, and Otlet in their different ways were visionary. That the World Congress of Universal Documentation brought them together makes understandable the observation that was made following the banquet at which Wells spoke: "In parting company the participants unanimously declared that this Congress marked one of the most important steps in the history of documentation" [28, p. 10].

Conclusion

The exposition of Paris and the World Congress of Documentation are, in fact, of limited importance. They did not prevent war. They were not so splendid or their results so far-reaching that they serve as points of reference when later expositions and congresses are discussed. In the history of documentation, despite the enthusiasm of the congress participants, they constituted merely a not uninteresting event. What they represented was the ongoing struggle of men to share knowledge, to resolve differences, especially in the modern world to harness technology for the improvement of social conditions and international relations. No stage or moment of this struggle can be fully ignored. At the exposition and congress a new technology, along with possibilities of new
kinds of international association, were among the principal matters of concern. Microphotography, practically demonstrated by Herman Fussler at the exposition, had served as a potent source of inspiration for Davis, and was embraced by Wells and Otlet as they elaborated their grand, inspiring, impractical schemes. The unrealistic expectations of this technology and its failure to introduce a bibliographic or documentary millennium neither hampered the acceptance of microfilm nor troubled dreams of encyclopedia or of the expanding and beneficial role of documentation in the intellectual progress of mankind. Microfilm found its level as an indispensable library technology, now taken for granted in the preservation and dissemination of voluminous or little used materials especially. Visionary expectations have been transferred to the new technology of telecommunications and computers which also incorporates, extends the potential, and harnesses the earlier microfilm technology in new ways and for new purposes. In 1937 there was a sense of possibility that, with the technological assistance of microfilm and organizational change, documentation might achieve a potential discerned by visionaries like Otlet, Davis, and Wells. Today with new technologies, new organization, a new approach to the study of documentation now called information science, visions of universal bibliographic control and of encyclopedia still tempt and inspire.

REFERENCES


