CHEMICAL HERITAGE FOUNDATION

DOUGLAS J. FOSKETT

Transcript of an Interview
Conducted by

W. Boyd Rayward

at

Portsmouth, England

on

3 July 2000

(With Subsequent Corrections and Additions)

CHEMICAL HERITAGE FOUNDATION
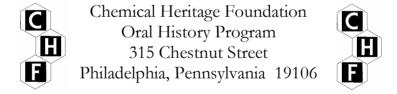## Oral History Program
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Chemical Heritage Foundation
Oral History Program
315 Chestnut Street
Philadelphia, Pennsylvania 19106

DOUGLAS J. FOSKETT

1918	Born in London, England on 27 June
2004	Died on 7 May

Education

1939	B.A., Queen Mary College, London
1954	M.A., Birbeck College, University of London

Professional Experience

Ilford Municipal Libraries
1940-1948	Librarian

1940-1946	Royal Army Medical Corps/Intelligence Corps

Metal Box Company Ltd.
1948-1957	Librarian

University of London
1957-1978	Librarian, Institute of Education

Honors

1965-1990	Honorary Library Advisor, Royal National Institute for Deaf People
1975	Honorary Fellow of the Library Association
1976	President of the Library Association
1978	Order of the British Empire Award
1981	Honorary Fellow, Polytechnic of North London

ABSTRACT

Douglas J. Foskett begins the interview by describing how he entered the field of information science and began working at Ilford Public Library. After serving in the Royal Army Medical Corps for six years, he returned to Ilford and met his wife Joy. Eventually, Foskett left the Public Library to take over Barbara Hill's position of running the information section at the Metal Box Company Ltd. When the Metal Box research department relocated to Swindon, Foskett decided, as an alternative to moving, to join the University of London's Institute of Education. During his twenty-one year career at the University of London, Foskett became director of the University Library and Goldsmiths' Librarian. In his interview, Foskett next discusses the formation of the Classification Research Group [CRG] to address the need for new ways to classify scientific literature. Foskett has been a member since CRG's formation, and Foskett developed faceted classification schemes for education and safety and health that are still in use. Foskett also met with NATO representatives and secured five thousand pounds of funding for the CRG to develop a new general classification scheme. Foskett then recalls S. R. Ranganathan's influence in the field of information science. Ranganathan was the first person to demonstrate that facet analysis could be applied to terms in a system of classification. Foskett next describes the theory of integrative levels and why the Dorking Conference was so significant. Foskett concludes his interview by addressing the expansion of the Library Association to include special librarians and the eventual formation of the Association of Special Libraries and Information Bureau [ASLIB].

Douglas J. Foskett was a very important figure in the developing field of information science. He passed away on 7 May 2004.

INTERVIEWER

W. Boyd Rayward is a research professor in the Graduate School of Library and Information Science at the University of Illinois, Urbana-Chamapaign. He turned to librarianship after graduating in English literature from the University of Sydney. He received his Ph.D. from the Graduate Library School at the University of Chicago in 1973. He has held positions in the University of Chicago (where he became Dean of the Graduate Library School). He served as Professor and Head of the School of Information Library and Archive Studies and Dean of the University's Faculty of Professional Studies at the University of New South Wales in Sydney where he is now professor emeritus. He has published two books related to Paul Otlet, Belgian documentalist and internationalist, and a great many articles on history of national and international schemes for the organization and dissemination of information.

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INTERVIEWER: W. Boyd Rayward

LOCATION: Portsmouth, England

DATE: 3 July 2000

RAYWARD: Douglas, would you tell me about your background and where you were educated?

FOSKETT: I was very lucky because the deputy borough librarian of Ilford, my hometown, had attended my school. When my graduation grew near, I still wasn't sure what field I wanted to go into, so I asked the deputy librarian for advice. He said, "The library takes on temporary people during the summer holidays, when the regular staff is off on vacation. Would you like to work at the library and see if you like it?" That's how I started. I first went to work at Ilford Public Library in the summer of 1937, my first vacation from college. I went there again in 1938. In 1939, when World War II [WWII] was imminent, I was deferred from the draft because of my eyesight. Basically, I was put on an extended leave from the army. The borough librarian gave me a permanent job, which meant that I had a job to come back to after the war. I managed to finish my B.A. in 1939, but if I hadn't had a permanent job, I most likely would have continued my education.

RAYWARD: What university did you attend?

FOSKETT: I attended Queen Mary College in London. Incidentally, the university exists on the site where my grade school was founded in 1737. There is a road next to Queen Mary College called Bancroft Road, and I attended Bancroft School. A curious fact.

RAYWARD: What happened to you during the war?

FOSKETT: I was eventually called up by the RAMC [Royal Army Medical Corps]. I didn't really advance through the ranks and stopped at lance corporal. [laughter] In 1942, the army started inviting people who could speak another language into the intelligence corps. I transferred into it and spent a year in Nigeria. Then, I spent another year, on and off, in hospital, and was finally placed in Germany until the end of the war.

RAYWARD: Was German the other language that you spoke?

FOSKETT: No. It was French, but I did learn a bit of German at school. Also, the intelligence corps sent us off to Brighton College to study German when it seemed Germany would be losing the war and troops would be sent there. My undistinguished army career in the intelligence corps ended as a fruitless search for people like Martin Bormann [chancellor of the Nazi Party and private secretary of the Fuhrer]. That was our job, chasing after Nazis.

Although it sounds harsh to say, searching out the Nazis was quite fun. We put away a few and nearly caught Martin Bormann on one occasion, but he always got away just in time. Afterwards, I came back to Ilford Public Library, where I met my wife Joy. She worked at the library with me during the war. Joy said that she couldn't marry me until I got a better job, so I applied for any position I could find, although there weren't many opportunities. Luckily, I found a job advertised in the *Library Association Record* for the Metal Box Company [Ltd.].

RAYWARD: By that point, had you completed your qualifications through the LA [Library Association]?

FOSKETT: I finished the ALA [Associate of the Library Association] Part I in 1940 and Part II in 1946. Then, I prepared for the FLA [Fellow of the Library Association] by private study and managed to complete it. I chose "special libraries" for the optional subject on the FLA exam on the basis of having no experience, but I managed to pass.

RAYWARD: Did you apply to Metal Box when you first saw that a position was available?

FOSKETT: No, but after seeing the ad, I never forgot about the company. I was just waiting for the right time to work there.

RAYWARD: Can you tell me about Metal Box? It sounds like an interesting place to work.

FOSKETT: It was very interesting because the information section had four people, one of whom was an ALA. The section, however, was run by a Miss Barbara Hill, an FLA. She had been on the staff of Birmingham Public Library, which was a great force in the library world in those days. Barbara Hill was a splendid woman, very jolly and outgoing. Before the war, she had made a great success of the little library and information service at Metal Box. Barbara was engaged to an Austrian jeweler named Siegl. They were separated by the war, but she later left the library to marry Mr. Siegl.

Last year, I was in Vienna, standing on the banks of the river, and I saw the name "Siegl" on the top of a jeweler's shop. I went inside and asked, "Is Mrs. Siegl around?" It turned out that she had died about twenty years earlier. The shopkeepers were surprised that somebody who had known Mrs. Siegl so many years ago turned up and found the shop just by chance!

When Barbara left for Austria, I took over her position at Metal Box. One of the most useful features of the information section, when I began working at the company, was a little bulletin called *The Information Letter*. It came out mimeographed once a fortnight and had about twenty items from current periodicals. Part of my job was to identify which articles to include in the bulletin and write summaries of them, indicating their relevance to the company and how they fit in with Metal Box's research production.

Metal Box had a small but first-rate library. The information section subscribed to about one hundred eighty of the best scientific and industrial journals, particularly on the subjects of metallurgy and food technology.

RAYWARD: How did you find out about what was going on in the company, so you could tailor the abstracts to those particular interests?

FOSKETT: Metal Box had a very excellent system of short courses, given twice a year, for new interests of the company. It just so happened that one of these classes began within a week or so of my arrival. Not only was I placed in the course to learn, but I also had to give a lecture on the information service. Fortunately, the chap who'd kept the place going in the time between Barbara's departure and my arrival had left a few notes that were very helpful. His name was [R.] Taggart, and he was later instrumental in the development of aerosol, particularly the valve on the top of an aerosol spray.

RAYWARD: Was the Metal Box Company a leader in the development of this technology?

FOSKETT: Absolutely! They had a tremendous interest in food sciences through the canning industry. The canning industry didn't have very much in the way of research; it relied on Metal Box Company technology.

RAYWARD: Was there a separate research department for the company that you had strong liaisons with?

FOSKETT: Yes. Actually, the information unit was a part of Metal Box's research department at Acton. The research department had very close links with many factories. There was a group of people whose entire job consisted of visiting factories and finding out about any problems

occurring in production. After each visit, people in the group would relay information back to Acton to see if the research department could suggest any production changes.

The information unit had been established in the early thirties and run by an Oxford science graduate. It included lab reports written since its founding. Of course, holding so much information required us to store it in such a way that articles could be easily located and retrieved.

RAYWARD: What techniques were you using to classify information so it could be easily retrieved?

FOSKETT: We listed subject headings alphabetically and did a lot of abstracting. The information unit also had a full-time abstractor. In one room, we were amassing a vast index of periodical articles. Next door, there was an equally vast index of the archives being built up.

Let me describe my prized achievement while at Metal Box. One of the manufacturer's research service chaps for Liaison came back with a problem. He asked me, "Do you have any information that would help solve this dilemma?" Luckily, I unearthed something from our own registry and another article from *Chemical Abstracts* without much difficulty. I gave the two articles to the chap who asked for information, and he took them up to the factory. When he came back, the man said, "The factory adopted that method you told them about, and they reckon that will save the company a lot of money." I helped that factory save something like ten thousand pounds a year. That was more money than my salary for the year! [laughter]

RAYWARD: Did they give you a bonus?

FOSKETT: They did, actually, about ten quid. I always like to share that story because a solution was achieved entirely using library techniques that I'd learned in a public library—indexing, classification, and then retrieval.

RAYWARD: But you used a different set of documents than the public library, right?

FOSKETT: Oh, yes! I used microinformation to get a much more precise pinpoint.

By that time, Joy and I had a house built in Gerrards Cross by an architect friend of mine. We moved into that house in 1952.

RAYWARD: Have you stayed in Gerrards Cross ever since 1952?

FOSKETT: Yes. Living there was very convenient for driving to work in Acton. The trip was quite reasonable, although it got worse as the traffic built up the following years. That was when I realized that, to progress within the Metal Box Company, I would have to stop doing what I enjoyed and sink to personnel management. The real incentive to change positions came from the fact that the Metal Box research department moved to Swindon, which was too far away for me to commute. Having had our house built just for us, Joy and I were quite reluctant to move! Also, we had two children in school, and Joy had formed a circle of friends. No one wanted to leave.

Instead of moving to Swindon, I began to look for another job. I was hankering after a position more in my humanities line. The head of the North London Polytechnic School of Librarianship asked me if I would partner with the head of the University of London Library. Then, Dr. [John H. P.] Pafford called and asked me, "Do you know anyone who would be suitable for University of London's Institute of Education?" When he told me more about the job, I realized that the most suitable person I could think of was me! [laughter] Also, though I didn't know at the time, one of the staff members at the Institute of Education had worked with me at Ilford Public Library before the war and another was married to someone that worked with me at Ilford Public Library. So I had a very good reception there.

The Institute of Education was the focus point in the University for a number of teacher training colleges in the Southeast of England. When I interviewed for the position, I explained why I thought that my experience at Metal Box would be useful. I described how I had been acting as a focus point for research and development for a number of outstations. Metal Box's relationship with its outstations was quite similar to the University's relationship with teacher training colleges. I ended up getting the job, and I worked there for twenty-one years.

I had a wonderful time there. The Institute of Education wasn't one of the world's great places because, to me, education is not one of the great subjects. However, within the field of education and educational studies, the Institute was the world center. I had a terrific list of international contacts that included education librarians around the world. That list proved very valuable on more than one occasion.

RAYWARD: Were you at The Institute of Education when Bill [William] Taylor was principal of the University?

FOSKETT: Yes, I was very fond of Bill Taylor. Along with being principal of the University, he was director of the Institute. I think Bill contributed to the downgrading of the principal's job. If ever there was a man who could fill the previous principal's shoes, it was Bill Taylor. Instead, he said, "This is a non-job, and I want nothing of it!" He went off to be vice chancellor of [University of] Hull.

Later, there was a report written about the University of London library system by a committee that Robin [L.] Humphreys chaired. He was the head of the Institute of Latin American Studies and a world figure in that subject. The report recommended setting up a coordinating body for the libraries of the University of London. It also suggested the appointment of a director of central library services with three deputies: one to run the University library; one to run the library resources coordinating committee; and one, which I myself inserted, for the information services committee. The University library had an information services deputy as well, Alina Vickery. Within the University, she did a lot of good for information work used by college librarians, particularly the scientific librarians. I managed to convince Alina Vickery to take the post of head of Information Services. She introduced a lot of databases, and I was able to obtain funding to update her section.

RAYWARD: When did you become the director of the University Library and Goldsmiths' Librarian?

FOSKETT: When Pafford retired, Don [Donovan T.] Richnell, who had been the Pafford's deputy for many years, went back to be the Goldsmiths' Librarian. He was the first Director of Central Library Services and Goldsmiths' Librarian.

RAYWARD: So he would have gone to the British Library when it was created in 1973 or 1974?

FOSKETT: That's right, but Don was in charge of the reference division of the British Library. When he moved to that division, Kenneth Garside, who was the librarian of King's College at the time, took over for Don. In retrospect, Kenneth's appointment was a mistake because he retired after only four years. Upon his retirement, I was rung up and asked to apply for the position. I did, and I got it.

My new title was the longest title of any job—director of Central Library Services and Goldsmiths' Librarian.

RAYWARD: Did the ordination begin while you were director?

FOSKETT: Yes. Don Richnell got the American firm Research Publications Incorporated [RPI], which was splendid. They do microfilms of whole collections, and they wanted to film the Goldsmiths Library, full text. The program was initiated by Richnell and still in production when I joined the staff.

RAYWARD: What was the collection they were filming?

FOSKETT: They were filming the best collection of economic history literature in the world. It was donated to the University by the Goldsmiths' Company in 1903. Thereafter, the University Librarian was always known as "The Goldsmiths' Librarian." Unfortunately, that tradition later ended. People complained that it was too confusing to give the librarian of Goldsmiths [without an apostrophe] College the title of "The Goldsmiths' [with an apostrophe] Librarian."

RAYWARD: Did the University keep up the collection building of the college?

FOSKETT: Yes. The catalogue of the Goldsmiths' Collection was published as a book in Pafford's time by Peel Hill. The archive film is offered together with a library of a similar kind at Harvard.

RAYWARD: Was it a joint project with Harvard [University]?

FOSKETT: It was a joint project with RPI. The library didn't really have anything to do with Harvard, I'm sorry to say. I knew a few of the librarians there well, especially Dick [Richard] De Gennaro.

RAYWARD: How many volumes were involved in the project?

FOSKETT: I think there were about two hundred thousand.

RAYWARD: What led to the creation of the [Pafford] lecture so long after he died?

FOSKETT: There is an organization called "The Friends of the University of London Library," of which I was a committee member, then chairman, and finally president. The Pafford lecture was one of our proposals. We thought it would be nice to recognize his contribution because he didn't publish a great deal. His main contribution was editing *The Winter's Tale* for the Arden Shakespeare Collection (1). Pafford spent a lot of time on that project, and his introduction is very interesting. Mind you, he was ninety-six at the time the lecture was created! In fact, he died in 1996—he was as old as the century.

RAYWARD: The record is fairly good for Goldsmiths' Librarians.

FOSKETT: Unfortunately, there have already been two or three Goldsmiths' Librarians after Pafford. Richnell was there for some years, but afterwards, there was a succession of short-term people. I'm sad to admit, I was one of them.

RAYWARD: How long were you a Goldsmiths' Librarian for?

FOSKETT: I held that position for five years, which wasn't enough.

RAYWARD: Did your career at the University of London take place mainly in the Institute of Education, other than those five years as Goldsmiths' Librarian?

FOSKETT: Yes, and by being on the committee that established the Library Resources Coordinating Committee, I was very much at the center of University Library development from early on. That was actually by accident. The University had a little group called SCOLLUL [Standing Conference of Librarians of Libraries of the University of London], which was more or less founded by Pafford. Humphreys Committee was established to look at this scene, and the chairman of SCOLLUL was put on Humphreys Committee. The chairman, at the time, happened to be me. I got the committee to establish an information services subcommittee, chaired by a professor of electrical engineering at King's and a very powerful, valuable professor of chemistry from University College [of London, UCL]. By giving them the chairmen positions, we got Kings and University College both committed to the information services subcommittee.

RAYWARD: Were there special needs for the management of the literature because of the potential avenue of computing coming in through chemistry? Were there discussions on computerization and the development of online services of that kind?

FOSKETT: Oh, yes. Alina Vickery mainly handled the development of online services. I also broached a discussion on the topic in my committee. I said that we needed to take advantage of the developments in computerized retrieval and dissemination of individual items of information, as well as conglomerates like books. Of course, Alina had been working on exactly that at Imperial College. Being director, I was able to influence the way in which her individual technology developed. Alina was able to get a lot of the latest equipment, even if it was only at an experimental sort of level. I was very proud of that fact.

Alina always had a dynamic personality. Everyone said that when she retired, the workplace was just not the same.

RAYWARD: How did the CRG [Classification Research Group] form?

FOSKETT: There are accounts of its formation in a big encyclopedia that I wrote myself (2). Almost immediately after I joined Metal Box, the Royal Society set up a scientific information conference in 1948, a result of the 1946 Empire Scientific Conference. At the 1948 conference, [John D.] Bernal made a revolutionary proposal to create one great national center responsible for collecting literature from everywhere in the world. That proposal eventually came to pass at Boston Spa.

One idea of Bernal's proposal was that journal publishing should decline in favor of the publication of individual papers, which would then be deposited in a center, produced, and later distributed. That was why Bernal's proposal was more or less held down, particularly by the editors of the journals that considered it a threat to their autonomy.

At the 1948 conference, the need for a new way to classify scientific literature was addressed. A. J. [Jack] Wells was editor of a newly established British National Bibliography [BNB], and Bernal asked him for help with classification research. I knew Wells because he had worked with me at Ilford before the war. We were old friends and would often discuss classification together. After Bernal spoke with him, Wells asked me to research a new way of classification with him. That was how the Classification Research Group first formed.   Other members of the CRG included Jack Mills, Derek [W.] Langridge, Brian [C.] Vickery, Denis [V.] Arnold, Kathleen [L.] Watkins, and about fifteen to twenty others. During those years, several of us had to devise detailed classification schemes of our own, for our own industries. For example, Jason [Farradane] worked on diamond technology, Brian did soil science, Magda Whitrow did the history of science, and I was responsible for occupational safety and health and packaging.

One person whom I ought to have mentioned at the start is Bernard [I.] Palmer. He was education officer of the Library Association and a close friend of Jack Wells. Those two contributed the first exposition of faceted classification to be published in the U.K. [United Kingdom]. It was called *Fundamentals of Library Classification* (3).

RAYWARD: Did Vickery write the manifesto of your group?

FOSKETT: Yes. It came from the Dorking Conference, so that was quite a bit later. Luckily, Bernard Palmer met and befriended [Shiyali Ramamrita] Ranganathan when he had served in the war in India. Ranganathan was considered the father of library science in India. Palmer came back to America full of Ranganathan's ideas on classification, which he more or less sold to Jack Wells. From the beginning, the principles of facets analysis [developed by Ranganathan] were put into operation using the Dewey Decimal Classification [DDC] system in

the BNB. An American reviewer of the volume once quoted, "This is a new departure—a national bibliography for the U.K. that is classified by Dewey, and the subject index is a dream." I will always remember that quotation because it shows how the classification followed Ranganathan's principle of chain procedure indexing.

That was a tremendous boost to the CRG. For the first few years, we were very much concerned with devising classification schemes in given specialty subjects like Jason's diamond technology, Brian's soil science, and my packaging. I also did one in the Institute of Education for the field of community development. The Institute had a department of community development with special reference to India and Africa, where many of the staff had served as education officers.

RAYWARD: Were the classifications that you developed actually put into practice and used?

FOSKETT: Oh, yes! As far as I know, the occupational safety and health classification system that I worked on has been in use since its completion in 1956. It was used as a basis for classifying abstracts, which were then printed like Library of Congress cards and made available around the world. I first went to the International Labor Organization [ILO] to look at their in-house information service. The library of the ILO was run on very traditional lines by the former librarian of the League of Nations library. He was very conventional, and divisions like the Occupational Safety and Health Department were beginning to worry and build up their own collections around about the building.

A visionary chap called Roberto Payro invited Geoffrey Woledge, librarian of the LSE [London School of Economics], to look at the ILO Library and recommend someone who could devise a classification system for their documentation service. It was a very big library, but static. Roberto could see that was endangering the library service by creating fragmentation. Woledge asked me to work on the system, so I requested leave from the research department at Metal Box. My request was approved, and I was at ILO for six weeks of unpaid leave.

RAYWARD: Did the U.N. [United Nations] pay you?

FOSKETT: Yes, via the ILO. I wrote a report and devised a framework classification in fair detail for the library. The Occupational Safety and Health Division liked the classification system and was interested in starting up a card abstracting service. The idea of having a nice classified notation to put on it appealed to them. The system should be fully automated by now because, when I left, George Thompson, who replaced the previous ILO librarian, had just begun the mechanization process. I remember standing on a hill with George, looking at the old ILO building from prewar times, down by the lake. George said, "Look at that! It looks just like an IBM [International Business Machines] card!" A new building for the ILO has since

been completed, and I think George retired to Switzerland. He has a very nice house on the French side of the lake there.

[END OF TAPE, SIDE 1]

FOSKETT: I have an anecdote for you.

I experimented with literal notations with the packaging scheme, and I devised one system. In it, the facets could be indicated by capital letters, and the terms within the facets, by small letters. As I talked to people about the system, it became obvious that where a three-letter symbol could be pronounced, it would be pronounced. That's when I came up with the idea to make all the three-letter symbols pronounceable. Instead of having to say "B-u-d-s-u-r-k-a-b," people could say, "Budsurkab." Also, it was different from "628.79198023," the Dewey competitor. [laughter] Anyway, I put that scheme into effect sometime later, but it didn't really last because the size of the notation was reduced considerably by introducing a vowel into a second phase. It was a nice thought, though. I liked that idea!

To get back to the anecdote, there was an unexpected problem. In a faceted scheme, the most specific topics are right at the end of the schedule. If you start A, B, C, D, E, the most specific topics begin with X, Y, Z, and not with A, B, C. In a document subject, the order must be: "XYZ-nbg-abc," instead of "ABC-xyz." This worried me, and I couldn't overcome the requirement. I went and looked at an archive collection that had been notated by a Japanese person who naturally read from right to left. After seeing the collection, I didn't bother any more with my packaging scheme! [laughter]

The packaging scheme came up later with the European Packaging Federation. They saw the scheme that I'd created for the Metal Box registry for their correspondents' lab reports and other specific topics. That project was in full swing. The printed version came out just as I left Metal Box, but it was carried on by John Rippon. He took over my place at Metal Box and later became a member of the council of the Institute of Information Scientists, in spite of having no science degree. He was a very good chap, and I'm very sorry to say that he later passed away.

RAYWARD: When did Ranganathan come over to the United States?

FOSKETT: Ranganathan was invited to visit the United States by the Society for Visiting Scientists in London in 1948. He gave a very good lecture at ASLIB [Association of Special Libraries and Information Bureau], which was somewhat sponsored by the Society of Visiting Scientists. I think his lecture was about a self-perpetuating scheme of classifications and was published in a very early volume of *J. Doc* [*Journal of Documentation*] after the war. Later, *J. Doc* merged with a publication of the British Society for International Bibliography [BSIB].

That's where [A. F. C.] Pollard, [Samuel C.] Bradford, [Robert] Fairthorne, and [Donald J.] Urquhart worked. That was in the early days of Urquhart's career. Fairthorne worked at the Royal Aircraft Establishment [RAE], at Farnborough Surrey, and he had had two lectures published in the *BSIB Proceedings* during the war. One was called "The Mathematics of Classification," and the second was called "The Classification of Mathematics." They were both in the same volume of the *BSIB Proceedings* (4). Did you ever meet Fairthorne?

RAYWARD: No, I didn't.

FOSKETT: Oh, he was a card! A wonderful chap! Fairthorne was an eminent mathematician who, without doubt, made considerable contributions during the war. However, no one knew about them because of the Royal Aircraft Establishment. He was also one of the first members of the CRG. Fairthorne and Vickery worked very well together and had a good exchange of views.

RAYWARD: Did Vickery have a chemistry background?

FOSKETT: Yes. He had been in industrial chemistry during the war. Then Vickery got the job of librarian at ICI Akers, named after Sir Wallace Akers. Akers had been the director of Research for ICI for many years, and a lot of their advances came from him.

Coming back to Ranganathan, when he visited, he stayed with Jack Wells in Ilford. One day, Wells invited a number of other staff members to meet Ranganathan at his home. There, I vividly remember Ranganathan demonstrating facet analysis on the subject of knitting. [laughter] All these library girls, sitting around the room knitting, suddenly became very interested.

Ranganathan also came to a CRG meeting and had great discussions with Eric [J.] Coates—the chief subject cataloguer of BNB and produced the best book on cataloguing ever written (5)—Jack Wells, Derek Langridge, who recently died, and me. I shall miss Derek severely. He was a very strong advocate for classification in the humanities, a subject he wrote a book about.

Vickery, Langridge, and I produced the three books: classification indexing in science (6), social science (7), and humanities (8) that made the trilogy. Derek excelled in understanding the theoretical basis of subject analysis. He was very much influenced by the work of modern professors of the philosophy of education, who have their own ideas about the grouping of natural phenomena and human products as part of natural phenomena. Forms of knowledge were Derek's theme.

Let me give an example of Derek's approach. Where most classification people would take a book on the history of science and say, "Obviously, that book goes in the science section," Derek would say, "No, it's a history book. History is a particular form of knowledge, separate from science. The history of science, the history of medicine, the history of art, et cetera are all in a form of knowledge known as history." That view was the epitome of Derek's approach. He defined approximately half a dozen forms of knowledge, of which, science and history were two.

To get back to the CRG, a crucial moment came when none of us could get past the same problem. We needed a reservoir of knowledge to draw upon. Like in packaging, there is the facet called "packs," which includes anything from aspirins to battleships. I didn't want to have one classification for the whole of everything as a facet in my classification scheme. When I worked on the classification scheme for education, I ran into a similar problem because anything can be taught. I didn't want a classification of everything in one facet of the education classification. We needed an Ur classification, a vast conglomeration of every term you could think of, but not necessarily a classification of it. The CRG concluded that we needed a new general classification scheme, something that was more than a collection of schemes. The new scheme needed to have its own internal structure and methods of analysis, synthesis, and use. That's how the CRG came to be involved with the new edition of Bliss.

Jack Mills was teaching at the Northwest Poly [Northwest Polytechnic], later renamed the University of North London. He used to teach his students by making them create schemes in their own fields of interest—I don't think Jack produced even one scheme of his own. Eric Coates did a lot of work on additions to Dewey. In fact, while he was still with the BNB, a technique of enlarging Dewey by brackets one was developed there. For example, —[1] —and then a verbal extension. The verbal extensions enabled the chain indexing procedure to be carried out automatically better than using the notation, which is what Ranganathan's technique did.

I happened to see a note in one of the scientific magazines that NATO [North Atlantic Treaty Organization] was interested in a new classification of the sciences. I wrote to NATO and said, "We, in the Classification Research Group, have reached the same conclusion ourselves but have no resources." In response, NATO invited me over to Paris to meet with their head of science. I told him that the CRG could make advances if funding was available, and he gave us five thousand pounds. Then, the CRG called a conference and handed out little pamphlets titled "Classification for a General Index Language," in which we outlined our thoughts about the relationship between specialist schemes and general schemes. The pamphlets also described what the structure of a general scheme could look like and what sort of techniques would be needed.

We used the five thousand pounds from NATO to recruit an excellent UCL graduate named Helen Pates. She wrote two or three really good papers, including one on the classification of politics that was subsequently incorporated into the new Bliss classification work. Only six months into our scheme, she married a fellow graduate of UCL, and they moved

to Cambridge. Helen said she couldn't carry on working for the CRG anymore—after such a short time!

Five thousand pounds in those days was quite a decent sum. We could afford to employ someone full time for a year! The CRG hired Derek Austin, who was then employed by the BNB and rather favored by Jack Wells. Derek didn't know anything about faceted classification. I remember he would come to my office at the Institute of Education, and I would give a lesson on facet analysis. [laughter] And what did he do? He went off and invented PRECIS [Preserved Context Index System]. He made an internationally famous name for himself out of CRG money, but it was to no advantage of our scheme whatsoever! Where's PRECIS now? Gone with the wind, which is what it was! [laughter] I had organized the five thousand pounds myself, and I could not make him deviate from this path, which was an alphabetical system. Everyone thought it was the bee's knees, and now, it's dead! No one I know has even heard of it.

RAYWARD: Was PRECIS prominent when it was created?

FOSKETT: Oh, yes! I know Tony [A. C. Foskett] gave some time to it in his subject approach (9). But it went nowhere. If the CRG had the equivalent of those five thousand pounds now, we would be able to finish the scheme. It's really heartbreaking for me.

RAYWARD: Was anything developed that you could send back to NATO?

FOSKETT: No, nothing. We sent back the conference proceedings, and the LA also published a bigger research pamphlet—Number Two—that contained quite a lot of CRG stuff. NATO got something out of the information, but they didn't have their new general classification of the sciences. The project is actually almost complete at the moment, having been worked on part time by a lot of people.

RAYWARD: Had work on the second edition of Bliss been going on for a long time, and is it in any general use now?

FOSKETT: Work on Bliss has been going on for quite a long time, yes! Also, there is a Bliss classification association, but I don't think it's much in use in the States. It astonishes me that the classification is American, but no one ever hears about it there. I've got a theory that the basic American philosophy of life is the exaltation of the individual above any systems; therefore, alphabetical subject cataloguing is the natural library concomitant of that philosophy.

RAYWARD: Does that call for specific entry?

FOSKETT: Specific entry, yes. [laughter] How specific is specific? [laughter]

RAYWARD: Ranganathan was very important and influenced the way many think about classification. Do you think he's dropping out of sight now, especially for the younger generation in America?

FOSKETT: I know what you mean, but I think he has achieved the fate of all the best inventions. Ranganathan's ideas have become so embedded in classification that people forget he developed the theories they use everyday. I always found that, when talking to people like the packagers and the occupational safety workers, they understand facet analysis, the material, the energy, the historical time, the geographical location, and the end product immediately. Of course, they also comprehend the systems theory of [Ludwig] Von Bertalanffy and Ervin Laszlo, from whom Ranganathan ultimately derived his work.

I wrote a paper for an Indian Library Association conference years ago called "The Personality of the Personality Facet." In the article, I said that there is general systems theory that centers around the idea of the whole being greater than the sum of its parts, and the personality of any subject field is the end product in technology. That's what facet analysis is. Of course, Derek [Langridge] was very good at using the theory in the classification of humanities and other, more academic subjects. The idea of these categories of material is as old as the Greeks, but Ranganathan was the first to demonstrate that they could be applied to terms in a system of classification.

RAYWARD: Do these object oriented databases follow a similar process?

FOSKETT: Yes, cruder, but similar. If I were twenty years younger, that's the area I would work in. I would classify everything and put it on the Internet on a web site called class-dot-com. [laughter]

RAYWARD: You should do it. It's never too late, Douglas! [laughter]

FOSKETT: I've got other hobbies that take up my time, like my ancestor research. I've already traced myself back to the British Civil War. There's a village in North Buckinghamshire that I just visited called Foscot Manor. Unfortunately, I don't think I'm entitled to own it because my grandfather in that era was the last son, not the first. [laughter] Though, I did take a photograph of it.

RAYWARD: What was Ranganathan like?

FOSKETT: Oh, he was tremendous fun and full of laughter! Ranganathan had all the arrogance of genius with his Indian friends and colleagues, especially those who were on his staff, but not so much with us at the CRG. He behaved in what you can only call an imperial way. [laughter] He was absolutely dedicated to librarianship and particularly classification.

Ranganathan has a very fine son called [Triplicane Ranganathan] Yogeshwar, an engineer who now lives in Luxembourg. He's an excellent chap! Yogeshwar is married to a continental European girl, and they have a son—making Ranganathan a grandfather. In fact, at a conference in Delhi recently, Ranganathan's grandson came and spoke about his grandfather. It was really lovely to hear him talking about how he used to play with him as a little boy.

I remember when I was in Geneva at the ILO, I went to visit Ranganathan during his two-year stay in Zurich. His son Yogeshwar took us around, and it was very interesting to watch Yogeshwar putting his old man in his place. "Pa," he called him.

Ranganathan was utterly dedicated. He lived a most austere life. Like [Mohandas K.] Gandhi, whom he admired greatly, Ranganathan never spent anything on himself. Bernard Palmer once told me a story from when he knew Ranganathan in the war. He said that Ranganathan came home from work one day when Yogeshwar was a little boy, and on the wall, Yogeshwar had written, "Librarians may be very good for humanity, but they're not much good for their family." [laughter]

RAYWARD: Is there an account of Ranganathan's response?

FOSKETT: No, but I'm sure he laughed.

Yogeshwar has now written a biography of Ranganathan (10). It's not yet published. Perhaps I could ring him up and let you know.

RAYWARD: I'd be very interested to see it out of general interest in the subject matter. Does he have a publisher?

FOSKETT: I don't know. It's published in India now. I made some contributions to the book, and I expect it may be published by his own or his mother's trust. Ranganathan devoted all his money to the Sarada Ranganathan Trust. Sarada Ranganathan was his wife. In fact, she was his second wife because he was first married in his childhood as Indians often are.

RAYWARD: Was it an arranged marriage?

FOSKETT: Yes, it was an arranged marriage. I don't know what happened to his first wife, but I don't think she was Yogeshwar's mother. T. R. Yogeshwar. The Indian system of naming children is different from ours. The first T stands for Triplicane, which is where he was born. The S of S. R. Ranganathan is for Shiyali, where Ranganathan was born. Then the second is the family name, so his name is Triplicane Ranganathan Yogeshwar. In Western fashion, he's known as T. R. Yogeshwar. If he were a Christian, Yogeshwar would be his Christian name. He's very well adjusted to his father's fame and international status. Yogeshwar was a research professor in one of the twelve universities in India, which, for the library profession, is a tremendous honor. It's almost equivalent to being a member of the Order of Merit here. He was a great one for the early morning before breakfast walk. Several times during the Dorking Conference, I got up early to have a walk around the place before breakfast with him.

RAYWARD: Did Ranganathan wear Western dress or did he wear a dhoti?

FOSKETT: No, he never wore Western dress.

RAYWARD: I suppose the Dorking Conference was a milestone in the world of classification research.

FOSKETT: Yes, it was! As I said, Gene [Eugene] Garfield was there. Barbara Kyle and Helen [L.] Brownson also attended. I believe that Helen was working with the NSF [National Science Foundation] at the time. I ought to mention more on Barbara, who was a dear friend of mine and died much too soon. She was the social sciences person in the CRG and did a lot of work on analyzing whether our theory of integrative levels would fit in with the social sciences.

RAYWARD: Can you tell me what the theory of integrative levels is?

FOSKETT: It's very similar to the general systems theory, though it traces back a long way further to a paper by Joseph Needham, the great China expert from Cambridge University. He published a book of essays called *Time, the Refreshing River* (11). It contained the theory of integrative levels, in which individual items or entities form relationships with one another, much like facet analysis. By virtue of those relationships, they can combine to form one entity that is greater than all of them. That greater entity consists of all the individual items and their relationships.

To explain, I usually use a bicycle as a crude example. Out of bits of rubber and metal, one can make a pedal or a wheel. With a bit of steel, bars can also be made. All of these can be laid on the ground as separate entities. Each one does nothing much until it's put into a permanent relationship with something else. For instance, the pedal goes with the axle and the axle goes with the wheel and the wheel goes with the frame. When you've put all these separate entities together, they make a machine for transferring rotary motion to horizontal motion—a bicycle. Of course, in the classification of bicycle manufacture, the bicycle is the personality; iron, steel, rubber, and plastic are the materials; and nuts and bolts are the parts. These things drop naturally into various categories.

That's what general systems theory is. However, instead of bicycle parts, people use abstract terms like "wholes" and "entities" and "entities in relationship," which make new wholes, which by virtue of the relationship between them, make the whole more than the sum of its parts. If the relationship is destroyed at the highest level, all that is left is a heap of parts with no personality; but at the level below, each one of those parts is its own personality.

RAYWARD: Why do you think the Dorking Conference was so important?

FOSKETT: It was the first time that a group of individuals who generally worked on their own inventions without knowing that a lot of others were working in the same area, got together. People had to be selected and invited to take part in the conference. Helen Brownson, [Eric] De Grolier, and Cordonnier [Georges] were all there. Overall, it was a very small conference. [William C.] Berwick Sayers came and opened the event, Pauline Atherton was the reporter there, and De Grolier gave the final general analytical report of the conference.

RAYWARD: I missed talking to De Grolier; he died several years ago.

FOSKETT: Oh, did he? I didn't know that! Michael Waynes and I were wondering about him the other day.

RAYWARD: Yes. Some time ago, Sylvie Feyet Scribe acknowledged De Grolier and his contribution to her work, and someone mentioned that he had died.

FOSKETT: It's awful that no one even knew about it! I thought his death would be publicized because he was so well known.

FOSKETT: Oh, absolutely! At the time, he was one of the best-known scientists in the world because he dabbled in so many fields.

It was really fun to see De Grolier and Ranganathan interact at the Dorking Conference!

RAYWARD: Did they have any disagreements, because their views couldn't be more opposite?

FOSKETT: De Grolier and Ranganathan never really clashed. They seemed to accept the other's point of view, like a child accepting his parents' views. However, De Grolier was always very firm that Ranganathan's principles did not agree with the Cartesian principles. He said, "As a Frenchman, I'm naturally Cartesian," more than once. [laughter] [Ranganathan was] very pragmatic, where De Grolier wanted to be philosophical in academic terms.

RAYWARD: One of the accusations that [John Wallace] Metcalfe used to make of Ranganathan was that he was not merely theoretical, but mystical—that he carried things to a level completely unrelated to the practical reality.

FOSKETT: That certainly wasn't true. Ranganathan was not of the European academic philosophical analysis traditions like [René] Descartes, [Gottfried Wilhelm von] Leibniz, [Baruch] Spinoza, and [Arthur] Schopenhauer. He did teach a class in code and classification, which was called something like mysticism, right in the middle. He also had the inclination to codify processes a bit in relation to layers of spirituality, like his APUPA [Alien Penumbral Umbral Penumbral Alien] pattern. He used to describe the scheme like an onion. When people see the outer skin of an onion, they say, "That's an onion." After that layer is pealed off, it still looks like an onion, but it's not the same onion. The cycle continues until they get to the heart of the matter. [laughter] That is the essence and truth, which in mystical terms, is given by revelation or intuition. Nevertheless, the subject specialists, in practice, could always catch onto facet analysis. More than once, people have said to me, "Why don't all libraries use this kind of arrangement? It's so simple!" [laughter]

RAYWARD: Is library classification, like the Dewey Decimal Classification, increasingly faceted?

FOSKETT: Yes, but that was a conscious decision of the Library of Congress. The Dewey Decimal Classification wasn't systematic, but it used the same approach we had in developing a new general classification—the idea that there's no point in writing out everything more than once. With Dewey, the classes were simple geographical and historical subjects. Still, there were plenty of other occasions, where he said, "Divide somewhere else." I always use the

strikes in the mining industry as example. In DDC, "strikes" can be divided by the class of industries-synthesized.

[END OF TAPE, SIDE 2]

FOSKETT: Discussions between library and information workers from industry, as in the CRG and similar groups, has ultimately led to the amalgamation with the Internet Information Services [IIS]. It started after the war, when the Library Association had a University and Research [U & R] section completely dominated by the older universities. A number of friends who were in the U & R sections worked in special libraries.

In 1950, there was a conference of the U & R in Cambridge. Afterwards, a group of us talked about forming a new section of the Library Association that would involve librarians from industry, special libraries, government libraries, and so on. These librarians would join with the specialist departments of great public libraries like Birmingham, Manchester, Leeds, and Sheffield. At the time, Sheffield was providing information service to the local steel industry and had a cooperative system going, so they had a lot of experience.

Our group decided to submit the proposal to the LA, and ever since, the section has been leaning more and more towards the information retrieval and dissemination—documentation by mechanized systems. Mechanized systems are used, of course, to solve the space problem and to make it easier for specialist librarians to draw upon large collections in the same way as the classification systems.

We held a conference in 1952 to set up the program and organize a number of local groups: London, Southeast, Northwest, North Midlands, et cetera. Each group was either based on the local city library or, the library of a big industry like Boots in Nottingham. The conference showed the Library Association that there were people running these small specialist libraries that weren't members and had never taken any Library Association exams.

As the new section of the LA developed, independent library schools were founded and eventually, like University College before the war, established their own qualifications. University College had always given its own exams and diplomas that were recognized by the LA, while other schools simply took the LA exams. Eventually, another set of library schools were created for universities that wanted their own, separate qualifications fulfilled.

There were parallel movements bringing different types of libraries and librarians into the Library Association, which had previously been dominated by public librarians. This movement still hasn't really succeeded in my mind, but it has paved the way for an amalgamation of the different types of libraries and librarians.

RAYWARD: Was [Jason] Farradane instrumental in having ALSIB set up?

FOSKETT: Absolutely! In essence, he was the institute!

RAYWARD: Was there an effort to get the ASLIB to adopt an accrediting examining function, similar to the LA, which would make it like the Institute? Did ASLIB reject this effort?

FOSKETT: Yes. The basic reason for that, in my view, is ASLIB is an organization of organizations, whereas the Institute and the LA are organizations of individuals. Also, I'm pretty sure Jason formed his institute so there would be an organization for individuals who chose not to call themselves librarians, though they were the advanced guard of librarianship into the twentieth and twenty-first centuries.

At the same time, people at the technical and commercial libraries were doing the same work as the members of ASLIB. They collected the periodicals, analyzed them, and disseminated information. They acted as information focal points for local industry and commerce—the fact that they worked inside a public library didn't really alter the case. However, Jason wouldn't recognize them because he believed that if librarians worked in a general library, they must be generalists and not specialists.

Jason also only recognized librarians with degrees in science, so information scientists needed to be qualified in science in some way. We always used to poke fun at Jason because of the scientific degree requirements by saying, "You couldn't succeed in a lab, so you had to be an information researcher in a library setting." [laughter] Poor Jason! I loved him dearly, but we never agreed on the degree requirements.

RAYWARD: Sadly, the Institute did not flourish. Have you continued your involvement with the LA?

FOSKETT: Yes, but only as a trustee of the Benevolent Fund.

RAYWARD: Thank you very much for your enlightening conversation.

[END OF TAPE, SIDE 3]

[END OF INTERVIEW]

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