

Michael Keeble Buckland Oral History Interview**Interviewed by Robert V. Williams, April 7, 2011, Columbia, SC**

RW: This is an oral history interview with Michael K. Buckland on April 7, 2011.

RW: I have that you were born on November 23, 1943.

MB: 1941.

RW: 1941?

MB: Yes, 1941.

RW: Oh ok.

MB: I'm older than I seem.

RW: Ah, 41. I had from another source, 1943...

MB: In Wantage, UK.

RW: Wantage?

MB: Yes, Wantage.

RW: Ok, so tell me about your parents... your father was an Anglican priest.

MB: Yes.

RW: What was their education, background... those kinds of things.

MB: My father was a farmer's son. His mother was upper middle class, and his father was working class. Of a really tough, strong – they were both extremely strong minded. His mother was the daughter of a high ranking bank officer in London. He was the son of a tally clerk. Tally clerk is the guy who stands at the docks, counting the bales that are carried in and off. So, among dockers, that's a sort of high standard, but elsewhere it's not. And he decided – when he was a boy-- that he was going to be a farmer. Now, how a tally clerk's son in the east end of London – the docks – gets to be a farmer, is not a question. And his father said, No, you're going into the docks. So, he replied to his father, yes, but after 10 years I'm getting out and I'm going to be a farmer. After 10 years, he'd saved 25 pounds. And he couldn't buy a farm for 25 pounds even then. He had a friend with another 25 pounds so they put it together and borrowed another 50 pounds and went into business at the wadding trade- -horsehair and stuffing sofas, that sort of thing. And 10 years after that he told his wife "I'm gonna go buy a farm" and left her with two very small boys. She didn't know where'd he'd gone but she got a telegram saying "Have bought

the lot. Take the train to Devon station"-- which is in the West Country. And, he'd bought the cheapest, most broken down farm. You buy a lease, technically. You don't actually buy the land itself. Cross by railroad on a canal, and in terrible condition. And this was just before the First World War. She met him at the station and he took her around the corner and bought her a pair of boots. He then showed her this broken down farmhouse and she burst into tears. Her wealthy father paid for a remodeling. When they eventually left she burst into tears because she loved it. They moved to outside Oxford, and that's where my father grew up, went to high school. He did his degree in English – English literature.

RW: At Oxford?

MB: At Oxford. Mostly, he played sport. Then he went to theological college. He decided early on that he wanted to be a priest. But, the real influence on his life was an evangelical group called, then, the Oxford group. It became known as the Moral ReArmament.¹ It's a sort of interdenominational Quaker-influence, and it connected way back when with AA [Alcoholics Anonymous]. This was the real influence on his life. He went to theological college at Oxford, and then became a curate – an assistant priest. First, in a rough industrial area in Yorkshire, then in a comfortable suburb in London where a local volunteer at the church fell in love with him, and they married and moved to central London. An industrial area, just south of central London just before the war broke out and the Blitz devastated the whole area. He refused to leave during the war, because his responsibility was at his parish. So, one of the first things that happened in London with the outbreak of the Second World War, is all the children were evacuated. They were just taken to the train stations and put on trains. Slightly awful train out at York and just went out to the country and at country stations and stop and people would provide foster care. I realized recently that I did not know where I was in the latter part of the war – I was born in 1941 during the middle of the war. And I don't know where I was until the end of the war. I probably was shuttled between my father's parents in Wantage, where my mother went to avoid the bombing to have me. That's why I was born there. And later on, I know that my elder brother and I were at a little village called [much Haddam?]. And now they were friends of the family – friends of my parents. It was not my battleaxe grandmother, who was a very difficult woman. And so after... I do have a memory of waking up in a bomb shelter. There was a bomb shelter in the yard.

RW: This was out in the country also?

MB: London.

RW: Oh, in London.

MB: No, that was in London.

¹ See a short history in Wikipedia.

RW: Ok.

MB: My father told me the most difficult thing he ever had to do was to go out into the country and find a boy who was, I think, eight or ten or something and tell him his entire family has just been killed. Anyway, so my earliest memories are in London. I went back there recently for the first time in almost 50 years. I found the house intact. It's now offices. Everything else had been cleared as urban renewal and the church isn't there – it caught fire and burnt down. Anyway, so my early memories are in a grim area of London near Clapham junction railway station. Then, in 1947, we moved, in total contrast, to a very rural area. A little village with an earl and a local manor – a big one. And one church, a Norman ... there was a Norman church on a pre-Norman Saxon foundation on a hill. And near the church had been the original town where – the village and the original moat of the original hall and the gamekeeper's cottage. But that's where it had been. And they're doing some archeological excavations on it. But then, the village moved to the other side of the church and the valley where the river Trent and now a railway line and the main road. It's a place called Sandon. About 500 people in the entire parish, a farming community. The earl had resisted dormitory suburbs being built there. And one canal with one gatekeeper--a lock keeper. One church, one village hall, one pub – the Dog and Doublet. One shop, one policeman, one post office. The nearest building--we lived in the vicarage, which was next to the church--was a quarter mile away. On one side a gatekeeper's cottage, and on the other side a little parochial school, which had no electricity. When we first got there the house didn't have electricity. The children had to go pump water from the pump in the yard. So that was a contrast to London. But that's where I was imprinted. That's really where I grew up. I was about four or five when I went there. And I went to--I was put in the parochial school which was run by the church, which had a terrible record. My brother went to a local private school. And we had -

RW: This is an older brother?

MB: Yes.

RW: Ok.

MB: An older brother, he's about three years older.

RW: Ok

MB: He now lives in Vancouver Canada. And a younger sister, 10 years younger, who died last summer. So my brother and I had totally different careers but it's worked out for both of us quite well. I then...in those days, in British primary education, you had an 11+ exam, which was an intelligence test, really. And that determined which kind of secondary school you went to. There were three kinds. There was the elite grammar schools – called grammar schools. Elite academic high school. And there were the secondary modern, which is a euphemism for everyone else. There were very few technical high schools for people in between. Totally classified – it's largely gone now and you have comprehensive schools like the United States. Anyway, I passed

11+ a year early and went to a good, snooty, high school in Stafford, which was about four miles west of the village. We went in by bus each day.

Then, in a comparable contrast---we moved there in 1947--in 1955, my father who loved this country area, felt that he needed to do more. He had been under pressure from the bishop to move. We moved into Stoke-on-Trent, which is a seriously grim industrial area only about 15 miles north. Staffordshire is a mixed up county. The southern end is part of the so-called black county – Birmingham. And the top end is -northern end- is Stoke on Trent which is culturally where the north begins. This is the pottery industry – Wedgworth and all those people. And in those day, appallingly polluted. It's also a coal mining area, so the all the ground is subsiding and the houses are all cracked. But in between, there's just a belt of the most beautiful gorgeous beautiful countryside. So we moved into Stoke on Trent – immortalized in the novels of Arnold Bennett. And I can't say I appreciated the move. I liked the country. We lived in Longton which is one of the so-called "five towns." I moved to a pretentious, academic secondary school. And by accident, I got to be two years ahead of grade in terms of age. And somebody with more initiative might have taken a year out and gone around the world or taken a job, but I just stayed on and studied more. I stayed in high school two years after I could have finished. The English educational system is seriously specialized. I had to choose between chemistry and Latin at age 11, and chose Latin. You're streamed into modern, which means humanities, or science which is what you'd expect. And then for the final two or three years it gets even more specialized. You take a bunch of – in those days – you took a bunch of exams called ordinary level school certificate. Nominally at age 16, although often earlier, and so I did 7 or 8 subjects, the only science course I did was math which I gave up before calculus. And then in what's called the sixth form, which is everything after ordinary levels, you do three subjects only and I did English, French and history. I wasn't really interested in English; I don't recall why I chose English. I was interested in History and was willing to do French. So after two years, you take your advanced level certificate, and this is what you need to get into university. There's a variation on it called scholarship level, which was sort of some extra work. So I did English, French and history and then another year I did French and history to scholarship level. And then I stayed on another year, and meanwhile I had been keeping my hand in for Latin, because in those days it was a university requirement at Oxford and Cambridge. I did advance level Latin and a composite subject called economic and political science in which I focused on economic history. It showed a lack of imagination but I actually learned lot. And I took the entrance exam to St. Peter's college, Oxford, which is where my father had studied, and was accepted but told to stay for a year, because I was too young. Strangely, I worked much harder – studied much harder after I'd been admitted than before, I don't know why that was. In school, because I was big and strong I was required to play on the rugby team, which I did. But I much preferred tennis. Rugby's a vicious game – there's such a premium. It's similar to American football, but you don't play with protective gear, and you don't stop. American football's much about stopping.

RVW: Yes.

MB: Rugby goes on, nonstop. It's a very... it's a tough game. And then when I went to college, I took up rowing. Rowing in eights. This was a disadvantage, because I hadn't done it in secondary school, and others had. But I did that, partly because like tennis, there's not a premium on being vicious, there's a premium on skill. So I did a lot of rowing, and studied very hard. The system there is unlike the American system. You have a tutor and you meet with your tutor every week. And you read [i.e., write] an essay that the tutor criticizes every week. And at the end, he'll say "Very well, Buckland. Next week I want an essay on some topic and you might want to look at..." and he'd mention some books. And it's up to you to-

RW: This is the entire program for...

MB: The entire program's that way. There are lectures provided...

RW: Yes.

MB: But attendance is optional. They're not connected with any exams in any direct way. And nobody asks whether you go or not. You just have to wear a gown if you go. In those days. I reckoned I read part or all of 500 books during the degree, which was a three year... intensive three year degree in history an additional, history auxiliary, and history and nothing else. There was...

RW: So it's essentially a history major.

MB: It is history total.

RW: History totally, ok.

MB: Early on, you have to pass an exam in French with historians. And Latin for historians. You had to translate a bit of Medieval Latin. And political science for historians and historical geography for historians. These were rather small exams and you had to do those, but otherwise, it's entirely history. The program had two components: one was the history of the British Isles from the beginnings to 1914. You can't come much more modern because you don't have historical perspective. And then a shorter period of European history. I chose European history from 1789 - the outbreak of the French revolution through 1870--when the Prussians creamed the French. I've always been very interested in the 19th century and I learned an awful lot. My overachieving on French in high school, where I concentrated entirely on reading and vocabulary and not writing, came in very handy. I got wonderful scores on French to English and barely made it on the English to French in my high school exams. All this came in very useful. I became interested in the central Europe, and again economic history--Industrial revolution.

MB: My parents had been leaning on me--my good bourgeois parents--had been leaning on me to declare what I was going to do when I grew up. Being decoded, this meant which of the

professions are you going to go into? My mother's family had been well-off. The father was into paper mills and they owned a number of paper mills. They lived in a large house--since demolished--to build flats in Seven Oaks--called Warren Beckenham--somewhere in the posher east side beyond the standard London in Kent. They had 7 children and the two brothers -- there were just two brothers -- ran the family business afterwards - - including a paper mill in Yorkshire, which was eventually bought out by another firm. But they had money. My mother volunteered at the local church and she met this gorgeously handsome young curate, and they married. It was a very close marriage and she became involved in Moral Re-armament also, which dominated my parent's social life as well as their spiritual life.

RW: Ok.

MB: And she didn't have very much education. She went -- she must have gone to a secondary school. She was very adventurous. She went on cruises and flirted -- a courtly term. But she became very serious. Anyway, so while still in high school I felt that the only way I could deal with my parents would be to give them an answer-- even if it was only provisional. So I thought about it. We lived just behind a big building that had a public library which I used to use sometimes. I decided that libraries were socially useful institutions and probably a pleasant place to work. I was absolutely not willing to discuss what I was going to do when I grew up. My father's father wanted me to become a farmer like him. But you can't do that without capital. You **could** become a farm manager.

RW: Yes.

MB: But it wasn't very realistic. It wasn't realistic at all, actually. So I announced that I was going to be a librarian until I found something more interesting to do. Which is still my position [laughter]. My parents were totally taken aback. This wasn't amongst the options that they'd ever dreamt of, and they weren't terribly impressed. Librarianship in Britain is not so much a woman's profession to the extent it is in the US. But they didn't know what librarians did. And I suppose they weren't very well paid. This idea just hadn't occurred to them. But to their credit, they accepted that. They'd asked a question and I'd given an answer...

[Note: question not recorded; some other earlier parts may be missing]

MB: Long established, it's got a complex structure, it's affiliated with, University College London, and it has an archives track and a library track. It required students to have a year's experience in a library before admission--as a condition of admission. Now, this I think is a good idea because it prevents people going to library school who find out afterwards they don't want to work in libraries. It also provides a good basis for the instructors to deal with. If you've got a student who's never had a job and never worked in a library, it's much harder to teach. I didn't appreciate this requirement because it delayed getting a job by a year--delayed everything

by a year. But London had an arrangement with SCONUL [Standing Conference of National and University Libraries]-- which is the British equivalent of the Association of Research Libraries--whereby the leading university libraries would have trainees--a trainee program--whereby you'd go and be paid very little, to provide cheap labor for a year, and this then qualified you for admission to university – met the requirement of University College London. So there was really no choice but to go. They were called the SCONUL trainees. Not having much imagination I simply applied for the one at the Bodleian when I was living in Oxford. I had Ted Parsons to vouch for me. So, after I graduated I became a trainee--a SCONUL trainee--at the Bodleian. When I showed up they had no record of having hired me, and didn't really know what to do. They put me in the stacks until they decided what to do with me. That's how I did the classic entry to librarianship, as a stack page. Not very common in England because they didn't have stacks in the same way [as in the US]. After two weeks I was put in the cataloging department. They had their own cataloging rules. It was a variation of the old British Museum cataloging rules--quite different from the AACR2. They didn't assign subject headings and the catalogers only did descriptive cataloging and didn't design subject headings. In fact they didn't really go in for subject headings because it was put into closed access stacks. There was a classification scheme but one person assigned them all unless it was in a specialized area in which case it was sent off to, for example, the law library or other specialized library. It was purely descriptive cataloging to their rules which were incredibly precise.

They never went to cards; they stayed with the old guidebook catalogs. It was extremely rigorous – it was so rigorous that you didn't need tracings, you could tell by looking at the entry where the other entries would be. And it was extremely concise. I learned a great deal about cataloging in a non-standard way before I went to library school. Anyway, the head of the--the Keeper of Printed Books...that meant the guy who ran the main part of the library as opposed to manuscripts....

RVW: Wasn't it Bradford? As I recall...that was his title at the time...

MB: At the Bodleian that would've been his title, something like that... He was on the advisory board for the University College London School of Library and Archives, and he took me aside and said "nowadays," he says, "you'd better go to library school." Most of the staff at the Bodleian had not been to library school because they'd been trained in the Bodleian's own arcane procedures and they were trapped, they couldn't go anywhere else, or it was difficult. So, this was a personnel problem. It was all bottlenecked, people who couldn't move, although they wanted to. He [Bradford] said, 'I'm on the advisory board with the University College London library school and you should go to library school; nowadays you need to go to library school. I hear there's a new one starting in Sheffield, if that's so you'd better go there instead of University College London.'

RVW: But Sheffield had the one year requirement?

MB: Yes. There's a rather telling criticism of University College London which had had a hotshot young new director in the thirties called Raymond Erwin, he had been the county librarian of Lancashire, and it was a classic case of a director of a library school staying too long. And, he stayed there very long time and sort of got stuck in the mud.

So, I applied to University College London and I applied to Sheffield, which hadn't yet then opened. I interviewed at London and I probably didn't interview very well, because they told me to my face that they didn't think I could handle their course. ...I've reminded them off and on once or twice since...[laughter]. Sheffield said, 'come.' So, that's how I decided to go to Sheffield. I was one of the first intake of students. There were, as I recall, twenty-two students. Twenty-one, twenty-three, something like that, in the first class admitted. There were four faculty, none of whom had been faculty before. And, this was a great advantage, because it meant that first year that if anything went wrong--with only the four faculty ... might have been their fault. In subsequent years they didn't think that.

We did everything together. All classes were the same class, same people. I don't remember there being electives; there might have been. And, they were all teaching these courses for the first time. And, we would take coffee breaks together. So there was a great esprit de corps. And, most important, it was superbly led, by a man named Will Saunders, ... he was just the right person, he talked very smooth...he put on this very old boy attitude-- well, that has too many connotations in the South, I understand--but he sort of looked a bit like the quintessential company secretary. But he had just the right touch in dealing with all the bureaucrats and administrators and he had just the right connections and he was very diplomatic and very charming and very dapper. He did an amazing job. And Tom Wilson who followed him also did a very good job. The school was very fortunate... its first two directors who must have covered thirty years.

But the most important thing I learned--at the Bodleian I learned about cataloging--I had an indelible impression of the devastating effects of bad management. That really influenced my career for a long time. It was very badly managed, a very poor use of human resources.

RVW – At the Bodleian?

MB – the Bodleian. That really got to me.

RW – because of, just being there too long, or doing the same thing year after year?

MB: They just weren't interested. They had no background in management. The chief librarian was always a scholar. When I was there it was a man called Myers. They put the word out that he didn't recognize any of his staff because he was short sighted. This was a fiction, I think. He was in ancient Roman history... and there was great emphasis on scholarship. They identified with the British Museum, that was their... well, put it this way: I would come into work one morning and my desk would be covered with piles of, slips of cardboard--these were the slips on

which the catalog record was written, by the cataloger. And, my job was to sort them, as to whether they'd been used on one side or both sides. If they'd been used on both sides I'd put them in the waste paper basket; if they'd been used on one side, I put a line through it, turn it over, and the paper could be recycled. Now, it's true they didn't pay me very much.

RVW: Sounds like high-end intellectual work

MB – I got eight pounds a week. Eight pounds something a week. But this, the value of labor was just not understood. And the staff were very frustrated because they were locked in and there wasn't much... promotion. Now, Oxford's a very seductive place and they were pretty much content, but, nevertheless.... But I learned a lot about cataloging there.

But what I got from Sheffield was something totally different. It was attitude that however things were being done, there was probably a better way. That's what I got at Sheffield.

RVW: These faculty came mostly from academic or public libraries?

MB – special libraries.

RVW: Corporate libraries?

MB: Will Saunders, I think he ran an education library, the school of education library. But I think he also had some corporate library background. He'd been in the Army too. The one I retained the closest connection with, who's still alive, in his nineties, had come up through the ranks of the Birmingham Public Library reference department, one of the great European libraries. He was a reference librarian.

The third one, her main claim to fame was that she'd been dealing with encryption in the Second World War—cryptanalysis. I don't remember what her background was. She was in cataloging and classification. She must've worked in the cataloging department somewhere. [John Freidman?] And the fourth was a Czech immigrant with a science background. I don't think he had formal training but he had worked in a special library. Science information was his background. He was actually my dissertation advisor but it was not a good relationship.

RVW: Let's stop here for the moment.

[MB – we're only five percent through. ?]

RW: Alright, Sheffield. Talking about Sheffield.

MB: Well I'd been accepted at Sheffield, and, what I learned there was really an attitude. There was a broad view of what librarianship was about. They changed it to school of librarianship and information science department then. And, not, school, I think originally. But it was an attitude that however things are/were being done, there's probably a better way, though not in a hostile sense. I came to learn that, very often, where there's a library school on a campus the

relationship with the library isn't always good, and sometimes this is structural, in the sense that the faculty have an obligation to tell their students what's the latest and best way to do things. This evolves all the time, and there's no way an existing library can keep changing. So, there's a sort of tendency to have an implied criticism of [actual?] institution with legacy systems, unless the faculty show proper respect for the people in the trenches actually doing the work. But in the constructive sense, the people doing the work need all the help they can get and if you could do anything to provide or develop more cost-effective, more effort-effective procedures then everybody would be ahead. So it was a very open and constructive atmosphere. It was the first year of the school. There was a new venture for the campus, and we had a nice old house that had been remodeled. We were not sharing a building with anybody else.

In the meanwhile, while I was an undergraduate, my older brother had graduated from Cambridge in engineering. He got a math scholarship but majored in engineering. It was a general purpose engineering degree, and he went to work for a civil engineering design company because they specialized in large suspension bridges, which was what he wanted to do. He was based in London so I would go up to London, as they say, from Oxford (it's only fifty miles, excellent train service) and stay with him. One time I went up, he said, (he lived in an apartment which was the top two floors of a row house that had four floors or so) and he said, well, there's a party tonight. What that meant was that if anybody living in that row house had a party, they would invite everybody living in the building so they wouldn't complain about the noise. On the ground floor, two young German women, Rita and Inge, who were enjoying life in London, had a party, and he said 'we're invited so why don't we go,' so we went. And, I saw this gorgeous... apparition, a young lady, sitting demurely there, and I went up to her and said 'hi, my name is Michael, what's yours' and she said her name and I said I'll never be able to remember that. But she wasn't interested so I did other things. But I did notice that in the food line she was looking at me. She was an au pair girl in a house on the other side of London and so she couldn't really get home. She had met Rita and Inge at the night school English classes that all these people took when they came to England to improve their English, so they'd invited her. It was the only party she went to in eighteen months in England. She had arranged to crash with them because it was difficult to get home. So she couldn't leave, and I didn't need to leave and nobody's been willing to believe that we were discussing the Reformation until five o'clock in the morning. Her social life was zero so she agreed... so I summoned up my courage and I called her and invited her to go to a carol service at the Royal Albert Hall and she hadn't any better ideas, so she agreed to go and promised to teach me German, a promise that, nearly fifty years later I'm still waiting to collect on, and eventually we married—a few years later. We married just before going to Sheffield. And, before long she became pregnant and so, I was in the first class and I was the first student in the school to have a baby. I got a new job, we bought a house, we had a baby, and I took my final exams all within about two weeks.

So that's was my situation in going to Lancaster. I went to Lancaster because having gotten this - it was called a post graduate certificate, but basically it was a one academic year MLS

equivalent and I applied for two jobs. I went for two interviews and one I was turned down and the other I was accepted. So that's how I decided to go to Lancaster. The director of libraries at Lancaster, Alexander Graham MacKenzie, had huge expectations of the Sheffield school and its graduates, and that really made... that and a good reference from the director was what got me in.

RW – Now Lancaster is not a new school. Is it?

MB – It was a new school.

RW – It was at the time?

MB – I was in the first intake of students. The University was an old university but I was in the first intake of students at the Sheffield Library School.

RW – Sheffield?

MB – Yes. I went there in the fall term, as they call it, in 1964. I was a student 1960 through '63, bachelor's degree, then a SCONUL trainee at the Bodleian Library of Oxford University for the calendar year 63-64, and then I went to Sheffield for this post-graduate certificate for the academic year 64-65, and then I got my first professional job starting in July 65 at the University of Lancaster. My job there was... I published a little memoir² about my Lancaster experiences recently, and MacKenzie deserves enormous credit because he innovated in a lot of ways. Academic librarianship in Britain had a whole new lease on life in the sixties because of the creation of a bunch of so-called new universities. These were brand new universities.

RW – called the red brick...?

MB – No. Red brick refers to the nineteenth century Victorian universities. Sheffield was a red brick university. Nineteenth century.

RW – Okay

MB – The new universities were founded in the nineteen sixties as the result of a government report which says there's going to be ... the canon will be and should be massive expansion of higher education, and so we need more universities. Warwick, Essex, Sussex, Sterling, Lancaster, York. Mostly cathedral towns. Lancaster doesn't have a cathedral but it had a big prison, an ancient prison. The first intake of students at the new university at Lancaster was a year before I got there, the fall of 1964. It started in a converted furniture warehouse [Waring and Gillows?] famous furniture makers (probably the seventeenth or eighteenth century maybe) downtown while they started a greenfield site. They built a whole new campus on a greenfield

² Buckland, M. (2009). The Library Research Unit at the University of Lancaster, 1967-1972. In J.R. Griffiths and J. Craven, (Eds.), *Access, Delivery, Performance: The Future of Libraries without Walls: A Festschrift to Celebrate the work of Professor Peter Brophy* (pp. 7-20). London: Facet Publishing

site just out of town. And the librarian was almost the first person appointed. And, Lancaster was unusual; it had what in American terms would be called a land grant ethos, unusual for Britain. In other words, it accepted that it had a responsibility to the region and should do useful stuff as well as intellectually interesting stuff. And the founding president--called Vice Chancellor there--was a mathematical economist who was also a Quaker. So he'd sort of got you covered on both sides. His name was Charles Carter. That was the sort of environment that I liked. I should mention that in high school I decided I was never going to be a teacher. And in college I decided I would never be a professor. This is known as career planning! [laughter]

But it was a very deliberate thing, to become a librarian. My parents believed absolutely, that one should make the world a better place. That one had an obligation to society; that's just simply the way it was. It's a sort of Protestant ethic issue. And, they devoted their lives to making the world a better place; this was sort of taken for granted. My brother made the world a better place through better bridge design, and, I totally accepted all of this and, felt-- or feel-- that library services or information services absolutely met that requirement. I had really no contact with commercial or industrial activity, other than visiting my uncle's paper mill once.

I don't know how relevant it is, but, if you're a parish priest, you don't have the same social relationship with your neighbors, as if you were a plumber or a gatekeeper or a farmer. It's a difficult role. You can't become too intimate with other people. It inhibits normal friendship. And, my parents mainly made friends outside of the parish, with people that had spiritual convictions that were the same. And they were dominated in their thinking by the Moral Re-armament movement, which was an attempt to improve standards of honesty, purity, love and unselfishness throughout the world. It was developed by an American called Frank Bookman. It's got a new name now, which I forget. But, that was the environment I grew up in. Very serious ... ethical.

RW – strong social justice?

MB – Yes. It wasn't phrased as social justice in any civil rights notion; it was just that the world would be a better place if people were more ethical. And more honest. And less selfish. And so on. A very basic Christian view. The Anglican Church regards itself as the one true Catholic and Protestant church and is very traditional; it's a kind of blend of that and Quakerism.

RW – Right.

MB – So that's really my background. Now, I think my mother would have liked me to go into the Church, as a priest, but that was not in the cards. I don't discuss religious matters with anybody.

RW – You don't?

MB – Even my wife. And I don't expect to be sitting on a cloud with a harp or being toasted in hell when I die. But, in many ways my father's religion was a kind of secular religion, in the sense that, in the same way that Quakers are spiritual but they're engaged in society. And he could not have tolerated a spiritualism, a spiritual life, that did not have this kind of social engagement. And this led to some tension between him and his superiors.

RW – for lack of attention to spirituality issues?

MB – No, that, some bishops were hostile to Moral Re-armament and what it stood for, because it was non-denominational, and they didn't sympathize with it, and they didn't have the same social conscience. When we went to Sandon-- that was the little village in Staffordshire--there was an inspiring elderly bishop, in the Diocese Litchfield, called [?] Woods, Wood---I don't recall exactly. He would actually go on a pilgrimage walking from parish church to parish church on foot, and he understood what my father was into, and why a healthy, strong young priest might want to go to this rural backwater, because it allowed him to do other things in addition. And there was another... the legal set up is different from elsewhere. If you are appointed a priest, if you--it's called a freehold--and if you're a priest nobody can remove you. The bishop can't remove you, the congregation can't remove you; you have an absolute right to that role. Unless you're convicted of heresy or moral turpitude... you can't be moved. So that's a strong position. The other thing is that medieval law continues in the sense that the local earl had the right to say who would be vicar. Now that's subject to the bishop's permission, but the gift was that-- there's some technical term for this--and the Earl of Harrowby at the time, had low church sympathies, and these are technical terms (high church is like Roman Catholic ritual and low church is more like the Methodists), and the Anglican--Church of England--has a wide spread on this, he had fairly low church sympathies and was somehow connected with the master, the director, of St. Peter's College, which is where my father was one of the first students. Julian [Fortan Dewsbury?] who, I believe, recommended my father for this appointment. For the presentation, as it's called. And that was subject to the bishop's approval. So, there were forces at work that resulted in my father getting a letter which caused him to get out a big atlas to find out where Sandon was and to go there. But Bishop Woods' successor was unsympathetic, and kept leaning on my father to go a larger, industrial parish. And eventually he succumbed and did this, but it was one of his choice. And he felt it was a good move in his terms, in terms of what the world needed. Later on he left, we went to Longton, one of the five towns of Stoke-on-Trent, and after I... I guess it was while I was working at Lancaster, he left there and moved to two tiny villages near Wantage. This can be a tough role. His successor at Longton committed suicide because of the hard time the parishioners gave him. So he went to these two tiny villages and, at a time when the Church of England is acutely short of priests, as the Roman Catholic Church is, the bishop bullied him into retirement. I mean it was really stupid. So he left, he gave up, and moved to Newbury, a nearby town, which was handy for going to London, so that he could continue his vocation partly through Moral Re-armament directly and partly filling in for local vicars who needed somebody to help them out with weddings and when they went on vacation.

MB - Going back to Lancaster...

RW – Lancaster, right. Did you take this job there knowing that this was going to involve creation of a research unit?

MB – No. Nobody knew that.

RW – Okay, so you took it, just to go in and ...

MB – Well, I needed a job, and I'd applied for two and had only been offered one of them. And I was newly married,

RW – Right

MB – and needed money.

RW – And what was the job as described?

MB – The job... I had said that Graham MacKenzie pioneered in many ways. I mean the... this was a golden era, the sixties was a golden era for university libraries in Britain. The creation of the new universities meant new university libraries which opened up opportunities for mid-career people who were otherwise, as the phrase is, waiting for dead men's shoes. And, Graham MacKenzie was a perfect example of somebody who got a chance, before he was too old. A lot of the directors of ... a lot of libraries, innovated. But Lancaster, under his leadership, innovated in almost every direction. A fine new building that was very functional, that he worked on enormously, with a local architect, the introduction of bibliographic instruction, which was pretty new, (I did some of this, as a couple of publications reflected). And a three- tier staff structure, based on the German model, or at least resembling the German model. A lot of professional work in libraries did not require subject expertise. They required expertise in librarianship. Many--perhaps most--British librarians at that time did not have university degrees. They went from high school to library school. So they were competent qualified librarians but they didn't have a university degree. So, the staffing structure had three kinds of staff. You had librarians with subject expertise, and they were narrowly focused on work that required subject expertise and they dealt with multiple departments. The field that they ... they would each deal with the department on campus, that was the department in which their own bachelor's degree was in, and the rest were divvied up as best they could. So, I dealt with the history department.

RW – But these subject specialists had the degree from the library school, right?

MB – They had that also. Remember, British bachelor's degrees are highly specialized and advanced by American standards. Narrow but advanced. And they had library degrees, too, called post-graduate diplomas then. Actually I didn't deal with history because there was already somebody on staff with a history degree. I tended to pick up the management area, which I was interested in. Then, there was a cadre of what were called 'senior library assistants.'

These were professional librarians that did things like inter-library loan, and cataloging but not the subject part. They ran the circulation desk and they were paid less. Regular library assistants and clerical support did most of the actual work, which was a three tier structure. I was hired as an assistant librarian. This was the term, which was the career position, for a subject specialized qualified librarian. I was supposed to deal with all aspects of the needs of certain departments. And, these included operations research, Britain's first department of-- they called it operational research-- and a program of systems engineering, and one or two others. In addition, being a tiny staff, we divvied up other things. I got to be a rare book librarian, mandated not to spend more than two hours a week on it. They bought, essentially sight unseen, the collection of a Scottish laird whose mansion was falling down and rain was coming in on the books, and, mostly collected by somebody who went on a Grand Tour of Europe back when the Napoleonic Wars were over. There was lots of old stuff. It had already been picked over by book dealers and we just got the rest in a pretty poor state of repair. I had fun cataloging those. I also got the assignment of building up the reference collection, basically from scratch. How many people get that opportunity? But it involved liaison with the departments, responsibility for selection and collection development, bibliographical instruction, specialized reference--this sort of thing. It's a broader role than is usually meant by subject specialists in large American university libraries, which tends to mean poring over second hand book dealers' catalogs in those days. I did this for eighteen months. Now as chronicled in that memoir³, MacKenzie had a background in Latin and Greek, and then he had served in the Royal Air Force and become an airman with machines--and a handlebar mustache, as RAF (Royal Air Force) people like to do, and was very enterprising and imaginative and had a lot of courage. He and Charles Carter, the Quaker economist Vice Chancellor, hatched a plan, which involved going to the British government and saying, 'look you're spending a lot of money on new universities and specifically you're spending a lot of money on new university libraries. This is a large capital expense and a large continuing operational expense. And, people know quite a bit about the history of libraries and we can see how libraries are currently being done, but it's not clear anybody is really thinking about how library services ought to be. And so, why don't you fund us to find out.' When they interviewed for the university librarianship from the very get-go they-- when they interviewed MacKenzie and presumably other candidates--they said, 'come with us for an interview.' They got him in a car and they drove him out of town and they stopped by the side of the road and scrambled through a fence and started to climb up a hillside that looked a bit like a scene from Wuthering Heights. Sheep bleating, nearly always windy and rainy--Lancashire specializes in rather bleak landscapes. And as they were walking up the hill they turned on him and they said, 'what would the ideal university library be like? We want one right here, and the students arrive in eighteen months.' And, to his credit, instead of withdrawing immediately, he took this as a personal challenge. It was just a wonderful stroke of good luck that I got involved with this library and

³ Buckland, M. (2009). The Library Research Unit at the University of Lancaster, 1967-1972: A memoir. In: In J.R. Griffiths and J. Craven, (Eds.), *Access, Delivery, Performance: The Future of Libraries without Walls: A Festschrift to Celebrate the work of Professor Peter Brophy* (pp. 7-20). London: Facet Publishing

this university librarian. They went the government and said, ‘why don’t you pay us to plan what the ideal university library ought to be like in twenty years’ time.’ And, the government, paralyzed by the logic of this said, ‘okay, what do you want?’ And they said, ‘we want five years’ funding for a big project; we want to be able to hire a principal investigator with a status of a full professor’--which means much more there than here. ‘And, an interdisciplinary cast of psychologists and operations researchers, whatever.’ And the government said ‘okay.’ And in a--- it’s barely possible to explain how radical this was for Britain, cause there’s no tradition of library research. No research on library methods, at all. Library research means history of libraries, or history of books and manuscripts...

RW – The library association did not have any kind of research office at this time, right?

MB – Oh no. [I don’t think?] it does now.

RW – I guess it was ASLIB that had one then...?

MB – ASLIB, yes. But that was really a consulting firm for special libraries. They were the only people doing research but that was not ... that was really, science information and special libraries. That was the only operation in town and that was building up at that time. Anyway... it was so radical, this notion, that they took an unusual move. They copied what you do with architectural competitions. If you want to build a spectacular new building its usual to have an architectural competition in which architects who want the job have to submit proposals of what they would do. And then one of them is picked. So they advertised internationally for people who would like to do this project. They had to submit proposals of what they would do and why they should be chosen. They appointed a committee of the graybeards of the profession as a jury. This was an irony because if the graybeards of the profession had...were that good, you wouldn’t have needed such a project. But, anyway, they reviewed the proposals, and, picked two, who were paid-- who were commissioned-- to refine the proposal. The deal was that they would be paid, but then the university would own the intellectual property on the proposal, with an expectation that the person who proposed it would be hired to do it. The committee of graybeards said ‘tut tut this is not as I would have done it,’ which was really ironic. And the whole thing collapsed. This was seriously discouraging for Alexander Graham MacKenzie. The program officer at the government said ‘look, why don’t you try something a little less ambitious. We’ll give you a grant, and we’ll call it systems analysis of a university library, and we’ll budget it a man and a half.’ And since that was the only option, for one year, and there wasn’t really a grant proposal, I don’t think. Nobody had a clue what that meant except that in those days systems analysis had two meanings. One is what you do before you write software, and the other was an analysis for operations research, and it was clearly the latter but nobody had any idea of what, actually, we would do.

Graham had a high opinion of Sheffield and this extended to a high opinion of me. And whether or not it was justified he reassigned me--that was the term we used-- to work full time

on this grant, and the other half position was an accommodation whereby a statistician from the imperial chemical industries, who was intended to be a faculty member in the department of systems engineering, but the department of systems engineering couldn't afford him. They could only afford half of him. So he got a faculty position, but the downside was that he had to work half time with me in the library for a year. Which he [Ian Woodburn?] did and we got on very well together. He had no more idea of what to do than I did, and at the end of the year the situation was the same. So he had to put up with me a second year. I had a bad dream around that time, and the dream was that we were at the end of the project and we handed in a report that was consisted of a pile of blank sheets of paper because we hadn't known what to do.

RW – (laugh) Now you had not had any systems analysis courses...

MB – no, and I'd given up math.

RW – or programming or anything, right?

MB – No. I did take a class on ALGOL, which involved the towers of Hanoi, which seemed to me really stupid. But... we were motivated. And, Graham and Ian Woodburn and I had different objectives but they converged. Ian was a very pragmatic man. He said, 'well, let's see if anybody can find books because libraries have to deal with providing books for people.' And, we took a look at the reserve collection. It was called the short loan collection. We did some clever statistics on how often could people find the books in the reserve collection that was a four hour or overnight, and what would it take to increase the chances of books that were asked for that weren't available.

RW – So it was his idea the center ran on, the central problem of can one find a book they want.

MB – I don't know how far it was his idea, it was a joint idea, but certainly this was something that he thought was a good idea, I know, and he had the statistical equipment to do that. Which I didn't. And that's what we did. The irony... so we wrote a technical report on this, and showed that very little investment in a few extra copies would transform the situation. What we didn't know is that if you do improve service, the demand goes up. And, actually, in a sense it doesn't matter. Because the resolution was that the person running the short loan collection was given a pot of money to buy duplicates whenever they thought it was needed. So you have an adaptive mechanism. Having done that, we then looked at the open stacks. This is a more complicated situation because it's more difficult to collect data because there were different loan periods for different classes of users. With difficulty you can find out how often each copy of each book has gone out. You have to infer from that data how often it was requested, it was looked for and not found. And where was it? Well, normally it was out on loan. Cracking that problem was what I wrote on as my doctoral dissertation. Although in principle you could use queuing theory, that's too complicated and breaks down. Once you start getting realistic about how complex the system is you can do what was called a Monte Carlo simulation where you simply program a computer that with one side of its memory is a library and then the other side is a series of users

generating random requests or requests of any form or pattern you like and then keeping track of how often it was available and this sort of thing. It was an almost perfect example of what Monte Carlo simulation can do. Basic principles were known to all librarians, that distribution of demand over the titles is highly skewed: Bradford's law, and there's a cat's cradle! For any given book, there's a type relationship between the pattern of demand, how often and in what pattern the number of copies, the loan period, how long it's out, and the probability of the next person finding it. If you control any three of those, the others are determined. So, with some data collection, we divided the collection into five tiers of demand. From never, basically, to high demand. Which, in a university library open stacks is about three times a year. Then we can simulate the effect of any combination of loan policies knowing how that translates into actual retention times and number of copies and compute what the options are. There's a trade-off between buying extra copies or shortening the loan period. And, this was a real problem because MacKenzie had a talented staff, he'd innovated in every way, and it upset him that people couldn't find books in his library. And the campus library committee was upset by this, too. This is not the way it should be. With a new library that has a lot of money thrown at it. So we were charged to look into this. And we were able to do it. By this time, I got a different collaborator. Ian Woodburn was allowed to go off and do systems engineering full-time, and I hooked up with a very bright operations research faculty member who had a background in industrial psychology--that's unusual in operations research. He was also interested in public services situations, such as hospitals and libraries. And he was a young man my age and we got on very well together. And we developed a really ... he had ... he was perfect, in terms of methodological issues, and very, very clever. And so we did this work and we wrote the report for the library committee, which is printed verbatim in the book I wrote.⁴ In the end we said 'look, people can find what they want about six times out of ten, overall, and the ideal library would have 100% immediate availability, for everything anybody wants, but that's not attainable.' If you take a really scientific approach and split the difference, and ask what would it take to get 80%, the choice is either spending half of most of next year's book budget on duplicates, or very selective shortening of loan periods. And, making faculty adhere to the same policies as students. At around 1970 that was about the one time when the politics of the situation would allow that. They opted for the shortening of loan periods, so we hired a bunch of students to go through the entire collection looking at date stamps, and, according to an algorithm, if it was a certain number that book was made a one week loan, renewable, and if it was a certain number, that book was a candidate for buying a duplicate. And immediately the availability went to eighty percent. At the end of that year it was sixty percent again. And the reason was that the improved service had attracted much higher demand. We started with a library that had the highest per capita borrowing of any university library in Britain and it doubled.

MB – As you might imagine, this was a real education for me, doing this operations research.

⁴ Buckland, M. (1975). *Book Availability and the Library User*. Pergamon.

RW – And you're coming in with no statistics background at all?

MB – None.

RW – Yes? So you must've been picking this up on the job pretty quickly then, huh.

MB – Yes, but it's not difficult to get a sense of what statistics is about, even if you don't understand how to do it. But the other thing that's important is that Monte Carlo simulation is simply a simulation. You don't need to know anything other than you can roll dice, and if you have a loaded dice it'll come out in a non-standard way. It's really easy to understand that, and that was the approach we used. I was willing to accept unquestioned anything that either Ian or Tony said about statistical reliability and sample size and all that. This was pretty innovative stuff.

RW – Who's posing all these problems as you go along?

MB – It was up to us to identify what these problems were, but that's what dominated what we did. It was the logistics of library service and the availability of books. Now, we wrote up--- we had to take in other work to fund what we were doing--we set up a library research unit. Actually, two were set up, with the same name. One was a division of the library, and the other was a division of the university's development company. We did not draw much attention to the fact that there were two, and this was for accounting flexibility and so on. Nobody I think really... hardly anybody knew that. But it gave us flexibility we wouldn't otherwise have had. So my advisors at Sheffield, were willing to accept a write-up of this work, knowing that it was not simply my work. But they decided that there was enough there that even if it wasn't all of mine it was enough for a dissertation. So my dissertation was entitled 'Library Stock Control' and then it was revised for publication as 'Book Availability and the Library User,' which was published by Pergamon. I'm hoping to make that available on the web soon.

RW – As far as I know--and you would know a lot better--no one else had ever looked at this issue, statistically anyway, of what was happening to a book in its lifetime.

MB – No. Well, there were four projects simultaneously, independently, that looked at loan periods. Three in the U.S. and us. Morse at MIT, wrote a book on it. He used only queuing theory so he could come up with results, but it wasn't really closely related to actual reality. There was a project at Johns Hopkins, and a fourth one I don't remember. But ours was the only one that was done in a library, and it was the only one that involved a librarian. And there was a period when operations research applied to libraries was in. Don Craft was actively involved in this. And Ed O'Neill, who...

RW – This was later...?

MB – No, it was about the same time. There was a professor at Purdue University called Ferdinand Leimkuhler [?] in the department of industrial research, and Ed O'Neill and Don Kraft

were among his doctoral students in library issues. This was at the same time. But we--there was just a brief period when a few other people looked, somewhat, at loan periods--but we were the primary ones. And we did it in great depth.

In the meanwhile, my father and his father liked to think that we were descended from gypsies. And, it's possible, because Buckland is an unusual surname, except amongst English gypsies. I like to think (nobody else thinks this is a good idea, because gypsies did not have a good reputation – you wouldn't want your daughter to marry one and all that). But I got restless once in a while. My parents were always having guests in the house, usually through Moral Rearmament. We had lots of foreigners in the house, always, coming and going. So I was used to a fairly cosmopolitan, international scene. My father, when he went on vacation always liked to go somewhere he'd never been before. This appealed to my mother, who as a girl had always been taken only to the same place. I would get restless to go somewhere. And in those days there was quite a demand for British librarians in the colonies--in the Commonwealth. I would bring back these job descriptions for a librarian wanted in ... or somewhere and this would upset my wife, who had a tiny baby. One of the position descriptions said, 'malaria is now rare in those areas normally occupied by Europeans.' [laugh] My good Austrian wife, this wasn't what she had in mind. I like to tease people in California that I always wanted to work in an undeveloped country I just didn't know it was going to be California. [laugh]

Anyway ... but I rarely applied for these jobs. I was onto too much of a good thing, at Lancaster. I was, I think, about the highest paid employee for my age. And, I was being full-paid to do really interesting worthwhile research, with colleagues that had the technical skills to do it. Now, what more could you want. Really!

RW – And you weren't doing reference duty or any of those kinds of things...

MB – I had done that for eighteen months. In fact, I had done just a little of almost everything that was done in a university library. I started as a stack page, I did cataloging, I did subject classification and classification using Bliss. At Lancaster I did bibliographical instruction. I could develop a reference collection, and, at no more than two hours a week, I was a rare book librarian. And I liaised with departments and occasionally I'd do some ... deal with some reference questions. And I took my hand at the circulation desk in the evenings. So, had it been a larger library I would not have had, in my year as a trainee and then only eighteen months as a real librarian, I can claim to have done just about everything academic librarians do. I also got a little bit involved in the sort of pre-computerization thing and was involved a little bit in designing a circulation system.

RW – So Lancaster was doing a little bit of this... automated circulation?

MB – Yes. We developed an automated circulation system that involved a mini computer at the circulation desk and files were updated on the main frame overnight. We called it a hybrid system. But by that time we'd hired a... somebody who really did understand computing.

Bernard Gallagher. So I didn't... I really wasn't very much involved in that. They'd gone and programmed a paper tape driven typewriter ... they had used a thing called a Flexowriter to generate the catalog cards, in the traditional way, and they'd kept the tapes. It was in fact possible to reconstruct MARC records from these tapes because of the punctuation and character return and other symbols. That was intended and it was in fact done. But I wasn't really involved in that.

So, I worked on this... in the library research unit and it was, basically, on a day to day basis, especially with Tony Hindle, the operational research lecturer. That's what they call a career academic – lecturers or senior lecturers. He couldn't spare much time, and he and I had a pact – that we would do nothing unless both of us were cordially convinced it was a good idea. Now, the result of this was that when we did anything it turned out to be worth doing. We didn't do a ton of productive things which any ordinary research project would've done. That is really why that research was incredibly productive and rich. Because of the things we didn't do. Hindle was a sort of... sceptic--not quite the word-- but he has to be persuaded that something's really worth doing. But then, if it is worth doing he's very smart and talented and able to do it. But that approach is unusual, in my experience. The other thing is that--and this is more so with Tony Hindle than with Ian Woodburn--Tony and I and Graham MacKenzie had very different backgrounds, different positions and different abilities and played different roles. They just came together in an astonishing way. Graham could not do the research; he didn't have the time--he didn't really have the background--but he wanted it and he was going to make it happen. He needed us. I was doing it full time; I did all the grunt work and I did all the technical writing. Except that all the texts had to be reviewed by Tony who was very sensitive to technical terminology. And Graham was really into rhetoric. To get something approved by both of them was a good challenge and resulted in good reports. I didn't have the methodological skills; all I had was my time and energy. Tony had the methodological skills but he wasn't about to write. He would not do anything other than what was really needed. But we all had a vested interest in the success of the research.

RW – Well, and you had spent all that time at Oxford, writing those essays, too. So that...

MB – You write essays from about age ten or eleven in England. All the way through secondary school you're writing essays every week. And it shows. It shows. I didn't know what a standardized test was until I got to the states. I didn't know what they were talking about, in terms of, you know, checking boxes.

Anyway, the main place where anybody was doing any operations research in libraries was at Purdue. Now, at Purdue, like most of the large ARL libraries, they hired a young man at the end of the second World War, and these people stayed on. Robert Downs was an example. But all across the US, libraries had lots of money thrown at them and the library exploded in size and in scale. The most extreme one is Toronto, where, as I recall, every conceivable measure of the library increased or quadrupled under one director's term. Now, the downside to this is that

when you've got a change in scale like that, it calls for different managerial skills. But you've still got the same person. At Purdue, it was being run in a dictatorial fashion, more appropriate to 1947 than 1967. The director, Professor Moriarty, retired and got caught in a snowdrift and got pneumonia and died, and the head of technical services got ill and died, and... but, Moriarty fancied research being done, and so he got this young assistant professor of industrial engineering, Leimkuhler, to do research on library problems. It did not involve the librarians. It was a good idea, and it had good effects in terms of the field, but it wasn't really addressing the libraries' problems. These were not the libraries' main problems, in my view. And it certainly didn't involve the librarians. With Moriarty gone, they tried to find a new director of libraries. They had difficulty because the libraries had a very low status on the campus. Long time president, President [?] would make speeches saying you make great universities by hiring great faculty not by buying great books. They did expand into humanities. But they said to the humanities faculty if you want books you drive over to Champaign-Urbana or you drive down to Bloomington. And when there were... it was said that you know that when the student protests began Purdue was a haven of student rest; you know, engineers were not in the forefront.

RW – not going to cause any problems.

MB – That's right. The humanities faculty were unable to deal with this and unfortunately took it out on the library. And you had a very bad... there was a very bad situation and also, there was a system whereby the deans of the colleges got to choose how much money went to the library. On those terms they couldn't find a director of libraries. They got one person who took the job then asked for his contract and left after a week. [laughter] So they... this went on for at least two years. So they decided that if they couldn't get a director, maybe they should replace the assistant director for technical services. Unbeknownst to me, [?] with whom I'd developed a friendship, by mail mostly, put my name in the hat--without telling me. I got this astonishing letter saying they were looking for an assistant director of technical services and would I like to express an interest? Now this is so un-British, that I thought to myself, 'what will happen? I should have some fun with this.' So...

RW – Now this is during your 'restless' period, that you were describing earlier...

MB – Well I... I'm still restless.... So I decided to... but it was so outside of anything I'd ever encountered, including the phrase 'to express an interest.' In Britain you had to apply for a job and then all the candidates were interviewed one after another on the same day, and it is all structured in the way that it is now here, as a result of affirmative action. But back then it wasn't. Then, you'd ask around of your friends in ARL. Anyway I got this letter and I wrote back and 'yes, I would like to express an interest,' as a phrase I hadn't encountered before in this context. And then two days later I wrote again and said, 'well maybe you could send me details of what the job involves.' [laugh] And there was long silence. And, then I got a letter saying, 'well... they thought they would look at candidates a little closer, geographically, first, and they'd done that, and they had found a candidate – one candidate they liked and he'd turned them

down. So, would it be the case that I might like to visit Purdue if I... if that was convenient.' As if every young librarian in the north of England happened to be passing through Indiana at regular intervals. [laughter]

RW – Not offering to pay travel expenses I assume...

MB – Well that didn't come up. That wasn't mentioned. What they may have known was that the graduate library school of Chicago had an annual conference on whatever's the hot topic of the year, and that year it was operations research applied to libraries. Don Swanson and his crew were involved. To do that they had to involve Lancaster. So they wrote to my boss, MacKenzie, and invited him to come to the conference and give a paper, but he had a commitment to a family holiday in Sweden, so I unselfishly offered to go on his behalf. So I wrote back to Purdue and said, 'well as it happens I will be passing through Chicago' (I don't quite remember what time of year it was) and so I could. So that was arranged. Two days... I set up a trip, visiting different places, including the library research center in Champaign Urbana, and, as well as Purdue. And I got a British student guide to visiting North America that said be careful what you say about potatoes when you're in Boston. [laugh] Two days before leaving I got another letter from Purdue saying don't come that week we want you to come a different week. So I flew to Washington anyway and holed up with a friend in Reston and got on the phone and managed to rearrange the flights within the week and went to Purdue. *That* was an experience. It was swelteringly hot. I stayed with [?] and he was able to fill me in on some of the background that was going on. The position involved supervising four heads of department – acquisitions, cataloging, serials, and the library automation effort. Three of those four were candidates for this position I was interviewing for--all four of them were old enough to be my father. That's what I walked into. And, I've never encountered such radiant hostility as I got from the wife of one of those four. I was interviewed at length by each of them and then, by lunchtime I was like a wet rag and they took me out to lunch and sat around me and the interview continued. [laugh] But they'd already passed over those three before I got there. And they knew it. The one with the angry wife left-- and has since died. (All four of them have died, actually.) And the remaining three treated me very well. Now, there I was. I landed feet first in Indiana, rural Indiana... my wife, my son, my daughter, and the cat. The cat got lost in transit but eventually got there. And, my wife and I took this move very seriously.

RW – She didn't ask about malaria in advance.

MB – No, we had to do that for South Africa recently, but not Indiana. But the key to it was in part psychological. We knew enough to know that we were going to a strange foreign country and any similarities in language or other were sort of accidental. It's not an... Indiana's not another county of England. That we knew, very well and we very conscious of that. Second, if you go to some foreign place you'd better be polite to the natives. And we were – I went native in a big way. I bought the works of James Whitcomb Riley, the Hoosier poet, and I got a great kick out of all this. I noticed that people who went to Purdue from the east coast really got under

the skin of the locals by complaining that West Lafayette wasn't like Boston. And thirdly, I only had a temporary visa, because the Purdue bureaucrats hadn't acted quickly enough. I had a temporary visitor's visa, distinguished intellectual visitor's visa, which mandated me leaving the country in twelve months. And, really important, psychologically, I worked out I could get back to England in thirteen hours, if I needed to [laugh]. It was an incredible opportunity for a young English librarian to work in a million-volume library. I mean they didn't have many in England. Head of technical services, was, I don't know, sixty staff. I'd never supervised more than a half-time secretary, practically. And, even if it was a total catastrophe, it would look wonderful on my curriculum vitae if I went back. So I saw this as a total no-risk adventure. And, we went on those terms. And the other thing is my wife and I knew that a move of this kind often wrecked marriages because it was the tail end of the so-called brain drain. And very often, the husband was in heaven with lab facilities and support that they'd never dreamt of, and the wife was miserably homesick and lonely and sooner or later would go back to mother. This happened a lot.

RW – And no friends.

MB – With my wife being Austrian, she was already in a foreign country in England, which she liked. And we resolved, explicitly, that we were not going to discuss whether this was a temporary visit or a permanent migration. Because we knew other people had done it and it's like picking scabs. And we thought that if we refused to discuss it, the decision would make itself. A year later it was clear we wanted to stay. That's advice I have given to other people since. Now, Purdue libraries was as different from Lancaster as you could get. They had every kind of management problem you could imagine, the staff morale was terrible, Moriarty had been director too long, the procedures all needed modernizing, the place was stagnant. I wouldn't have lasted there long except for the fact that in the meanwhile they had found a new director--sort of. They had interviewed a... energetic, effervescent special librarian called Joe Dagnese, who'd been at MIT.

RW – Yes, I know him.

MB – He was not your typical Hoosier--that would be the understatement of the week-- and they'd interviewed him and decided to hire him but he wasn't there yet. And, I discovered-- which I wasn't supposed to know--that this was in the works, and that he was given the opportunity to block my appointment, and that he was attending the same conference in Chicago on operational research in libraries. I knew that, but I didn't know whether he knew what was going on, and nobody introduced us. Eventually-- before the end of the conference-- we got together and talked, and he chose not to block my appointment, so although he interviewed after me he got there before me. And, with a new assistant director, a new director, a new provost, and a new university president, and some new deans, it was a climate that would tolerate change. It was everything that the Lancaster library was not in terms of efficiency and morale and modern procedures, and the problems were essentially people problems. And that was new for

me. So while I learned about the quantitative side of planning at Lancaster, Purdue was an immersion into people problems. And, at that time the Association of Research Libraries had come to the astonishing conclusion that the quality of the management in large ARL libraries was just conceivably, just possibly, just this much less than perfect so they hired Hamilton [?] to do a study of Columbia University libraries and then they retained Hamilton to work with ARL and Wayne Webster to develop a do-it-yourself kit for internal management studies. The first three libraries were set to go to implement this do-it-yourself manual. But the University of Rochester, under Ben Bowman, wanted to postpone and Joe saw this as just exactly what Purdue needed and he fought his way into replacing Rochester in the first round. So, almost the first thing that happened to me when I actually arrived at Purdue was a meeting of the administrators of the librarians of the four-state universities in a basement at Indiana State University in Terre Haute, and the announcement that they were going to do a study of whether OCLC was good for Ohio--and what would be good for Hoosierland. Joe announced that I was going to represent Purdue on this. This eventually resulted in INCOLSA, the statewide thing, and I was very much involved with that. I was president, vice president, president-elect two years running and then never got to be president because I left the state in the end. And at the same time, if you're going to do an internal management self study, MRAP (management review and analysis program), the big problem that affected several of these studies, is that if you don't have a brand new director of libraries, you can't really do it without implicitly or explicitly criticizing what the director's done. This is very inhibiting, and it in some cases it caused problems because the director--with an ego the size the director should have--didn't appreciate it, or felt they were misunderstood. But Purdue was ideal because it was a brand new director. And, a lot depends on the team leader. And the ideal team leader would be a man from Mars-- or woman from Mars-- who came new to the scene and didn't have any history or legacy involvement with the institution. Now Purdue didn't have anybody from Mars but they had me, brand new and wet behind the ears from the UK, so I was put in charge of running the MRAP project. We picked a broad team, and Joe and I agreed that what you don't want is a committee with only one strong personality. If you've got one strong personality, you'd better have all strong personalities. And we did that, deliberately. And we had a really--they were all internal from the library--and we had a real spectrum from extreme left, radical, to extreme right-wing conservative. The funny thing was that we would meet in a room in the union building, a long narrow room with a light at one end and a door at the other, and a row of square tables. And I would sit a little bit...the tendency was to be towards the window, and I would sit about six feet from the edge of the table on one side, and I soon realized that the other people, as is common, were always sitting in the same place. The position they sat exactly--you could use a ruler--represented their position on a spectrum. [laugh] The most radical was leaning back on my left, in his chair, and the two that were extreme right were way down on my right. And the most calm and neutral person sat opposite me, and they were all positioning themselves exactly on this spectrum. This was an eye-opener. There's a...when I teach management...

RW – psychology

MB – I use class time to talk about where to sit at a meeting and that, once you enter that you can't just walk in and sit down. [laugh]

RW – Now MRAP is going on the same time that INCOLSA is getting started?

MB – Yes.

RW – So you're running both projects.

MB – Yes. And modernizing...

RW – Who's taking care of tech services in the meantime?

MB – Me.

RW – From two to four a.m.?

MB – Oh, I mean I was totally exhausted. Rarely got to bed before midnight. But I soon disabused myself of the fact that I could do much directly. It was a situation that forced me to recognize that management is the art of making things happen through other people. I developed some techniques there that I've used ever since. One is the people who reported to me--we would have a weekly meeting, canceled only if it was inconvenient or if there was no agenda--every week at the same time. And we discussed whatever anybody wanted to discuss, including me but not only me. Second rule, I met one on one with each every week. And I had a little set of pigeonholes and anything I wanted to talk about with... say Bob or whoever. I put it there, and I'd get it out and go through it. They would bring their problems at the same time. This was partly a way to make sure that I did have contact with people who tended to keep to themselves, and in one case it was to prevent having to take things up with them every day. The other principle that I've always believed in is that people don't really like to be surprised. They like to know what's going on that affects them. So that means a lot of spade work. And also--this was really important when I got to be Dean at Berkeley with the faculty--if you've got a tense situation you don't want to bring things to faculty meetings unless you've got a solution. You are more likely to get a consensus if the problem is already worked out. The other thing I did is, I later discovered IBM does--they call it an executive interview--I called it, jocularly, philosophical discussion. The court jester can get away with things that more serious people can't. Each year--first with the people who reported directly but then I extended it to the people who work for them. This was a very calculated move. I would write a memo and I would say, 'look, I know you're busy, and I know it's never convenient, but we tend to be preoccupied with the problems of the moment and I would like you to please agree to spend an hour with me in which we will not discuss any current pressing issues. I would like you to please address two questions. One, what should we have learned from the past two years about how we do things here. And second, what should we be concerned about with respect to the next two years, either to embrace or avoid. And then I did the most difficult thing for a bureaucrat – I listened. And I

always scheduled this at the opposite time of the year to either the budget or their personal evaluations so that they wouldn't contaminate. I learned so much that way. They always had lots to say. And the first two times, especially the first time, there was a torrent about themselves and the insults they'd received, the experiences they'd had, and I learned... it was autobiographical on their part... I learned so much from them on what was bugging them and how they ticked this way. After a few years they had less and less to say that I didn't already know. And this venting of the noxious gases went a long way towards reducing tensions. I learned that... one of the reasons I did it, is that if you're an administrator, sometimes you have to take positions without consulting people--it's really good if you know what people will stand for and what they won't. Or what the consequences will be, before you take the position. And this proves to be a very effective way of learning that. And I also learned that people...well I had one experience that really got to me. It wasn't somebody who reported directly to me, it was somebody who reported to them, a professional librarian. There was a particular problem. We were buying duplicative back runs of journals because they were purchased as periodicals in monographs but actually they were serials. And, there'd been one too many cases where both the serials department and the acquisitions unit, which did books, both bought the same back set. Unintentional duplication. And I decided, given the chemistry of the situation, not to ask the two heads of departments, but I went behind--openly, deliberately-- I went beyond them and asked the support of a librarian that reported to each of them, to make a committee to do it. One of them did a splendid job and really dominated and the other didn't do much, but it was necessary to balance. She came, brought the report to me-- handed it to me--and I said, 'thank you so much, I'm really grateful, I need to read it and study it and I'll tell you what my reactions are; I'm very grateful.' She stood to attention and said, 'Dr. Buckland, I really want to thank you for listening to me' That was such a reflection of the paranoia and the atmosphere that had been engendered under Moriarty. What I learned in part from all this is that people will tolerate an enormous amount if they believe that you will listen to them, even if they don't agree with what you do. So, just as I learned a lot about quantitative science and planning at Lancaster, I learned an awful lot about human nature and the people side of management at Purdue. Then, there was a huge problem, which I understood as being a problem, of expectations management. And in the middle of this, we discovered an expensive problem. That is that all of the support staff--the positions were classified in sort of titles and step and each step had a range and the idea was that on average people would be at the midpoint overall, statistically. They weren't; they were at the bottom, systematically, statistically. This wasn't what was intended but to correct this would require giving out increases that would cost money in a difficult economic time. Now, I took this up with Dagnese and we decided there was a moral imperative -- we had to do that, even though it was a really inconvenient time. That was the litmus test as to whether we were serious about internal management reform. In the meanwhile I had proceeded by picking off little problems, and the way I would do it was mostly a matter of the procedures not being documented and not understood and inconsistent. So I'd pick a little area and I'd talk to the people, and I'd come up with... I didn't use a position paper--I used a discussion paper--that's less threatening. And I'd

put a discussion paper up for what the procedures might be and who'd be responsible... elementary clarification. And then it achieved consensus. I did this and I was feeling bad because I hadn't got very far in the first nine months or so. Then there was a staff meeting and one of the most respected librarians went into a tirade: 'the pace of change is much too fast around here.' [laugh] And because people don't like to be surprised, when the final report was officially submitted it had a hundred recommendations in it. It didn't surprise anybody--and that was intentional. In a sense it was a non-event. But I believe that the Purdue MRAP was closer to the original spirit of MRAP and probably a good deal more successful than the others in terms of what was intended.

RW – Dagnese was encouraging in all this?

MB – Absolutely. Absolutely. He said to me--or I said to him, I don't remember--'there's only one thing wrong with this place and it's everything.' [laugh]

RW – Was this before or after the study?

MB – During. We depended very much on each other. And different though we were in many ways we got on very well together and we needed each other too.

RW – Yes.

MB: Neither of us were Hoosiers so that may have helped in dealing with each other.

[A short break was taken before the section below]

MB: Okay, so where have we got to? We were finishing off on Purdue...

RW – Right. Purdue sounds like a really great experience, in terms of managing and getting involved more in research...

MB – Yes. The research I did there was not really research. It was either management innovation or it was writing up stuff from Lancaster. I did a lot of that. When I wrote my doctoral dissertation I decided very early on that this would make a publishable book. And in terminology we didn't use in those days--because I didn't use a word processor--at a certain stage I did a sort of 'save as,' set it aside, and then I edited it into a proper dissertation, written expressly--though I never told him--for one of my supervisors, who was a faculty member in economic analysis. And, I thought, what would this guy want ... that determined what I included, what I could take for granted, and what needed to be explained in what level of detail. I wrote it for him. I never told him that. And then, as planned, I went back to the earlier version, and wrote that... worked that up into a book for publication in library land and that came out as *Book Availability and the Library User*, but that rewriting I did at Purdue. And also working with

Don Kraft I and Tony Hindle, we edited a reader in operations research for librarians. In the NCR microcard editions.¹⁵ And eventually that got remaindered and they were all sent to China.

RW – Oh? It was a pretty hot book for a good long while as I recall...

MB – Yes.

RW – ...in terms of selling.

MB – I don't even have a copy anymore.

RW – No?

MB – But that had a tutorial, which we gave to somebody who didn't know anything about operations research, and they didn't understand it so we had to go back and rewrite it. Anyway, I did a lot of writing while I was at Purdue, but it was mainly working through the materials that I brought from Lancaster. I went...it was a wonderful experience; I learned a lot, as at Lancaster it was just a lucky fluke that by circumstances I was just in a very good place at a very good time. I should say that knowledgeable, well-informed people patted me on the head [before I went there] and said 'sonny boy I wouldn't go there if I were you.' But they were wrong because, although it was in a terrible state, it was just at the point where it was ripe for improvement--it was just the right time to go in. And I got to go there. Later I met the candidate who turned the job down. And thanked him. [laugh] Anyway, it was very engrossing; I was very busy.

RW – Well in terms of library networks, great experience, as you were developing that, library automation, really getting involved with that, particularly personally, in terms of learning management issues.

MB – Yes. The library automation was largely turned over to a guy called Harry [H?] who ran the campus-wide systems. It was moved out of the library. The library had been run by a guy named Donald [Hammer?] who was big in the ALA division of... whatever dealt with what was called library automation. He left Purdue and died not long after. And it was turned over to people who really understood systems development. It was a split arrangement between the library and systems. I learned a lot about good practice, in terms of design, of careful, thoughtful design of systems, and having documentation and getting people to sign off... all that was new to me. Tedious, tiresome things that constitute good practice.

Anyway, I went... we loved it; I bought a house right away, even though I'd only got a temporary visa. And, the year expired and there I was in the country illegally. So I wrote a memo saying, I understand that my visa has expired and that I should be out of the country but I'm here on the advice of my employers and I got Joe Dagnese to sign it. I kept a copy and eventually I got the permanent visa and I was not deported. [Laugh]

⁵ *Reader in operations research for libraries* (1976). Peter Brophy, Michael K. Buckland, and Anthony Hindle, Eds. Englewood, CO: Information Handling Services, Library and Education Division.

MB--I got home one day and my wife said there's a... somebody called. There's a message here to call this number. And I called this number and it was a guy called Ray Swank whom I had met because, in 1969 I guess, I went to visit my brother in Vancouver and came via San Francisco and spent a day or two in Berkeley. Gave a talk and met some of the faculty. It was Ray Swank. I called him back; there was no indication of what it was about. And he said, 'how would you like us to pay for you to visit San Francisco?' And I said, 'that's good; what's the catch?' He said, 'well, you'd need to give a talk' so I said, 'fine, what's the catch?' 'Well, we'll pay for your wife to come too.' So I said, 'fine, what's the catch?' 'Well,' he said, 'we're looking for a dean of the school of librarianship,' which I hadn't known, and so I said, 'okay, I'll come, I'll give a talk.' Now, there's a connection here because [?] had a sabbatical and unusually for a department or for a professor of industrial engineering he'd gone to the Berkeley library school for his sabbatical. And he had a hand in this, clearly, as he had had at Purdue also. And, the Berkeley ... School of Librarianship--as it was then--had problems. There was sort of an internal conflict--that's an understatement; there were strongly divided opinions as to which way it should go. Ray Swank was a giant, intellectually and as a person. He was very shrewd. And he was proud of the fact that he could claim to be the only person who had turned down the deanships of Columbia, Chicago and Berkeley. [laugh]

RW – Was he the dean at that time, at Berkeley?

MB – Yes, he did become the dean.

RW – Okay. After you, or before?

MB – He was the dean well before me.

RW – He was the dean when he called you?

MB – No, he wasn't. Actually, in 1971 I had two letters almost the same day. One was from Patrick Wilson from the Berkeley Library School asking if I'd like to express an interest in a faculty position at Berkeley. And I wrote back and said it was inconceivable that I would leave Lancaster. And another was from... I don't remember who it was from. It might have been George [?]... Anyway, another one, and I wrote back saying no way. The irony was that in fact that's what happened. Now, the Berkeley campus had done a graduate council review of the school. Now this is really serious. I mean accreditation reviews are nothing compared with these. They really determined the fates of departments. And, it was nicknamed the Wheeler Report, after the chair, John Wheeler, and it...

RW – John Wheeler the physicist?

MB – No, he was a professor of accounting.

RW – Oh, okay.

MB – And, it was an interesting report, and I think it was dated '73, and it said... in effect it said, preparing good librarians is a really good thing, but, first, other people are doing that; second, there's needs in the organization of information outside the libraries that are not being attended to; and thirdly,

if you're a big snooty research university you shouldn't define the discipline by an institution. So, it should do something new, different. It should redefine itself, it should involve the word information... we don't know what it is but it should be done. This is my characterization of the Wheeler Report. And, everybody agreed with us, except, as at Lancaster nobody had a clue as to what it really should be. Swank had engineered this in the sense that when he was dean he recruited faculty without a background in librarianship who nevertheless brought expertise the school would need in the future. Victor Rosenberg. William Cooper. Michael Cooper. Bill [?]. And, Michael Cooper was sort of a... qualified as a librarian but the others weren't. And didn't really appreciate being... [called that]. Charlie Bourne was an adjunct not a real professor... it was... 'professor in residence' was the technical term. And in varying degrees these people didn't fully appreciate being called 'professor of librarianship.' And this was the period of tension between librarianship and information science. And, then there was another pole of contention over social responsibility and more traditional views. So everybody agreed there was a need for change but they couldn't agree on what the change was. And there was appalling fighting inside the faculty. And, so they decided they would get a new faculty member... and the name of the school was a battle of contention too. They solved that by formally agreeing that it would be placed on the second agenda, on the agenda of the second faculty meeting after the new dean, whoever that was going to be, arrived. [laugh]

So there were four short-listed candidates. I only remember one of the names, and he withdrew; it was [?] who was the university librarian. And, basically the other three candidates either withdrew or talked themselves out of the job by saying the wrong things at interview, like saying the faculty ought to go on a warm and fuzzy retreat. [laugh] Now they expected me to talk about operations research in libraries. That was a cool thing. But I didn't. I talked about the people problems of modernizing a stagnant organization. Right from the heart. This was the MRAP study at Purdue. And actually it hit home because, in a less severe way, this was what was affecting Berkeley library school. So, like a demolition derby I just lucked out by being the last person standing and was offered the job, and I thought, you know, this was a little too good to turn down. In spite of having decided long ago I was never going to be a professor, I had, nevertheless, an interest in library education, and the notion of running a library school had occurred to me as something that might be interesting to do one day. But I should be very clear and say that I was hired as--and I saw myself--as a turn-around man; I did not see myself being hired as a professor. It was my job to go in as dean and change the situation, whether or not I stayed on as a professor.

RW – Now you did not know about these troubles prior to getting there...

MB – I learned about them.

RW – But after you took the job.

MB – No I knew about them...

RW – You knew about them in advance?

MB – I knew about them before I accepted the job.

RW – Yes? Because somebody told you or... how did you know...?

MB – I did some due diligence, shall we say. They were very open about it. Patrick Wilson was the dean at the time and he was a very open man. Very shy, skeptical, cynical man, but honest.

RW – So he told you about all these differences...

MB – They were not secret. No, I knew. I didn't quite know how bad they were but I knew... I was not... I knew what I was letting myself in for., yes. It was a management challenge. Now, see... so I got--in my vanity--I got to see myself as a bit of a turn-around man. Because I'd been involved in the creation of a library research unit, which was innovation, at Lancaster. Joe Dagnese and I had a... this huge turnaround job at Purdue, and now... but the library school wanted new directions.

RW – And these were also, like you said, the times when the library and information folks were fighting each other like crazy.

MB – They were, but it was less of an issue; it was present but less of an issue at Berkeley. Partly because of the intelligence of Ray Swank and Patrick Wilson, who refused to accept it.

RW – As a dichotomy.

MB – Yes. The... both Swank and Wilson, and I ... okay, so you got a library and information science. Show me a division that's intellectually defensible. You can't do it. You can't do it. It has nothing to do with an intellectual assessment of the issues. That was partly why it was so stultifying, and I'll talk a bit about that tonight. The fortunate thing was that the faculty had sort of scared themselves and they'd sort of agreed they wanted to bury the hatchet before I got there. That was really important. And another was sort of bought out and left Berkeley. This person was first given a makeshift assignment elsewhere on campus and then left. And that simplified things. I didn't know better than to approach it in the same way that I had at Purdue; I had my philosophical discussions one on one and learned a lot. I didn't bring things... I was very anxious to avoid fights at faculty meetings. It takes a lot of time and schmoozing to work out where there's a consensus before you go to a faculty meeting. But that's what's needed.

RW – You did a lot of mediating, one on one.

MB – Yes I did a lot of one on one. And I did a lot with discussion papers, not position papers. I started writing these little discussion papers and pinning them up on the bulletin board.

RW – Aha.

MB – This was new. They wanted... they were tired of fighting and they wanted some resolution and some forward movement. And two things happened that worked out. One was, they said to me, 'look, you... the next faculty meeting we have to address the title of the school.' We had a system there which I really liked and that is that the faculty elected a chair of the faculty who was a... chaired the faculty meetings, who was different from the administrative head of the school. Berkeley's big distinction

between the administrative and the academic senate... and technically a faculty meeting is a meeting of a subdivision of the academic senate. Although de facto it's an administrative meeting largely. Perry Danton who had been Dean from 1946 onwards...

RW – Well, we've ended that tape.

MB – Already? How time flies when we're having fun.

RW – We have a choice... you're supposed to be in with the doctoral students at 3:30. We could quit now, or go another thirty minutes.

MB – Why don't we go another thirty minutes?

RW – Okay. I just didn't want to take up all your time in case you wanted to... take a walk.

MB – No, I'm having more fun talking about myself. I'm honest enough to admit that. [laugh] I never could bring myself to write a diary or keep notes.

MB – We were talking about the fact that they'd scheduled the topic of the name of the school for the second faculty meeting after the new dean arrived, and we had a system whereby there was a chair of the faculty different from the dean. So I talked with him [Perry Danton?] and we came up with the following scheme. We announced to the faculty that we would put the topic on the agendas of two faculty meetings. The first one we would discuss but not decide; and then the next faculty meeting we would decide but not discuss. So in the first one, everybody said the same old, same old and paraded these tired ideas around. They felt compelled to make these arguments. Nobody was listening but they got it off their chests. That was the first one. The second meeting [Danton?] announced that we were going to decide but not discuss. The amazing thing is they went along with it. And so, the first thing was, 'please would everybody propose the name... we will imagine that the chancellor's gone berserk and mandated a change to the name of the school. On that assumption, what would people like.' And eight names were put up on the chalkboard. Eight different names for the school were put up on the chalkboard, very quickly. Okay, now, each person gets one vote; forced to a choice between these eight, which one would you like. And it was immediately apparent that only three had non-trivial support so that five were erased. Okay, next vote. Of these three, if a change were mandated, which would be the least unsatisfactory.

RW – Least unsatisfactory?

MB – Yes. If you had to choose between these three, which one is it going to be, given that we've mandated a change.

RW – Okay.

MB – So, another was erased. Another vote. Given these two, which could you live with, of these two? And one was erased. So we were down to one. 'Whoops, we've just got news from

the chancellor's office that the chancellor has recovered from his mania, and he's retracted his mandate. So do you want to keep what we've got or do you want this one that's on the chalkboard?' And they opted for the one on the chalkboard. That process took twenty minutes. And after that it wasn't an issue. [laugh] It's amazing what process will do. Anyway, actually I now think we got it wrong because it was too long. School of Library and Information Studies. And, nobody could remember that. And people would say, 'oh, you're in the school of library...' and it sounded more retro than librarianship. Anyway that's how that happened. And then we started recruiting new faculty, and I insisted on... I have strong views on faculty recruitment. One of them is that there must be a discussion of programmatic need prior to consideration of any candidates. Now, that wasn't done later on and I feel that caused all kinds of problems. I feel very strongly in issues of programmatic need and I'm strongly opposed to the 'let's hire great minds and let the programmatic need take care of itself.' People are on different positions on that and I have a strong position on programmatic need. We started hiring faculty and revamped the curriculum and took great pains to avoid offending the alumni. After four years I worked very carefully with a report on what we were doing and why, and why this is what good old Mr. Mitchell, the founding director, would have done. We sent that out to alumni, and we sent it to other schools, and it had more effect on other schools (this was 1980) than on the alumni.

RW – The name change was '78?

MB – '76. Yes; it was right away.

RW – Right after you came?

MB – It was effective July 1. We took care of it the first month. I stayed on as dean; there was always more things to do. The other thing that was really important was how to frame the discussion about the scope of the school. And, we did this with a diagram that's in this report, the report to alumni, and anybody interested should look at that report and that diagram. It's probably published elsewhere too. You've got this polarization. And polarizations are really dangerous and bad. Charles Carter, the vice-chancellor at Lancaster, made a nice remark. He did not mean this as an ethnic joke. He said, 'if you've got a confused situation, what you need to do is to introduce another pole and that'll confuse everybody and then you can make some progress.' [laugh] And that's good advice. So, we started with a diagram that had a box which said 'library.' This is an institutional context and that's what the school has traditionally prepared people for. Then, below it and a little to the side was a fuzzy cloud, with 'information science' written in it. And, it wasn't very clear what this included but it was theory and it was ideas and it was methods and it was loosely information science. And then it was observed that these are different in kind, as reflected in different shape and a different outline. So if you're preparing people for libraries, what other institutional context might apply? So you put another box next to the 'library' box which says, 'archives' and then you do another one that says 'corporate record management' and then you do another one which says 'legal information services' and then you

do another one which says ‘databases.’ And these are all in the same format as the ‘library’ box. And then you say, ‘look, we’ve got more information science professors per square foot than any other school, maybe they have a role here; what is their role?’ And their role surely includes making suggestions, put an arrow, as to how things might be done better. But also, they should be listening to the nature of the problem, so you’ve got an arrow from the ‘library’ box, a two-way arrow, from ‘information science’ to the ‘library’ box and from the ‘library’ box to ‘information science.’ But then you’ve got the arrows from all the other boxes, too. So if you’re going to have information science it’d better be justifying its existence in terms of listening to what’s coming out of these boxes. And making input into these boxes that are worth having. And, that visual presentation changed everything--literally. Because when you said, ‘well, what do we need? What do the people in these other boxes need?’ And the person who taught cataloging said, ‘well, they’re dealing with documents and I don’t know what kind of cataloging they need, but they’re going to need some kind of cataloging, so they’re going to need me.’ And the person who taught library management said, ‘you can’t provide information services in any context without knowing about management, so whatever the specific problems are they’re going to need my course on management.’ I mean, I’m exaggerating, but this was actually the thrust of the argument. And the people who were into user needs said, ‘well, how can you provide any kind of information service in any context without studying the context and the needs of the people in it. So they’ll have to take my course.’ Everybody except the specialist in children’s literature could identify... . The people who were into government documents said ‘you’ve got to be joking in these other areas without a dose of government documents.’ [laugh] So, instead of a polarized threat, you suddenly had this vision of a school with a broader mandate and full employment for everybody (except children’s literature). And that was such a transformation in the way the problem was being viewed that it was only a practical question of, well which box do we pick off first. And after looking at archives, which in that time--about ’76-’77--wasn’t ready for decent professional education like it is now. We opted for records management in addition to investing heavily in databases.

RW – Now these are all ongoing discussions by the faculty...

MB – Yes. But I mean, that was the...

RW – With communication to the alumni...

MB – This was the discussion inside the faculty meetings and it was conveyed to the alumni. It was primarily an internal discussion. But it changed the complexion of the debate, in a political sense.

RW – I want to go back... because this situation that you’re describing in terms of making the decision about the name of the school... of the dean not running the faculty meeting, is that what you described?

MB – Yes.

RW – Did that continue?

MB – It did for a long time. It's not currently the way it's done but it did continue a long time; it had been that way and I think it's a good way.

RW – And who ran the faculty meetings?

MB – Each year, they'd elect a chair.

RW – So the chair of the faculty versus dean,

MB – Yes.

RW – and the chair of the faculty dealt with all kinds of issues except administrative issues?

MB – No, not really; they chaired the faculty meetings.

RW – Within the school?

MB – Yes, just the school. The Berkeley situation is one of the few places where a clear distinction is sustained between administrative matters and academic senate matters. So, a faculty appointment cannot be made without the advice and consent of the academic senate at the department level and at the campus level. And a course cannot be approved by a dean or the president; only by the academic senate.

RW – And only by the departmental faculty.

MB – Just by the faculty. They can recommend it. Only the academic senate at the campus level, usually through its committee on courses. Only they can approve a course. It's not like the big ten in the Midwest.

RW – I had never experienced this until I went to work with the Chemical Heritage Foundation and discovered that Arnold Thackeray did not run the staff meetings; his administrative person did.

MB – Yes.

RW – He only came in and made a presentation about something.

MB – That was probably his choice. I don't know.

RW – It could be. This is what it reminded me of, that maybe the University of Pennsylvania had done the same kind of thing you all did.

MB – Anyway, there were some other things going on in the chemistry of the situation, too. I was the youngest member of the faculty, and I was only an associate professor; I kind of liked that, in a way. Having grown up in England I didn't see many of the Disney animal movies, and

so I used to go and watch, you know, the Timberwolf and these things, with my children when they'd come. I went to see a film about a colony of baboons on the shore of a lake in Africa. And, there's this colony of baboons, or apes, whatever they were, minding their own business sitting on the beach, in their pecking order and all this. And all of a sudden there's an alien baboon at some distance that shows up. And this causes a shiver to go through the community; they don't know who this guy is although he's certainly an alien. The alien baboon keeps his distance. The next day he's a little closer. He waits for the colony to sort of settle down. They gradually they get used to him, and gradually he gets a little closer. And then, he goes and sits on the grain of sand underneath the lowest ranked baboon in the colony and waits for the colony to calm down again. Then he goes to sit on the grain of sand underneath the next in the hierarchy. [laugh] And he does this until he reaches an equilibrium point. I thought this was so funny. And I saw myself in these terms and I went back and told them in South Hall and they didn't think it was at all funny. [laugh] So in a sense the outsider status sort of helped.

The other thing that interested me is that I had received an inquiry from Patrick Wilson in 1971 and declined it. They appointed somebody else which they probably would've appointed anyway, it was... Michael Cooper. When I got to be dean, it was five years later and I was responsible for his tenure evaluation. Now, that's because he's a little older than me; I'm a month younger than him. If I'd gone there then I'd have been up for tenure review. But by going to Purdue and working in a library staying in and then going in, I was the dean. There's a difference. One of the many advantages of being a dean is you get instant tenure. Now I had no...

RW – Not an instant promotion.

MB: No. That took a while actually. And there was a misunderstanding over that. But, I had no thoughts or ideas as to what I would do after I was Dean, or whether I would stay on as a professor, or what I would do. I was just not interested in thinking about it.

RW: Was there a limited term appointment made?

MB: Yeah, I guess so. Nowadays it's rigidly five years, and it may have been then, I don't really remember. Then the question comes, how long should you stay and when should you... The steam diminishes, and you have fewer new ideas. The thing that I had difficulty with, was personnel reviews, merit increases. When I was new, I felt as comfortable as one could be, doing these assessments on my colleagues.

The first thing I did was a reform. I mandated that they write an immodest statement, which was the draft of a merit increase recommendation. Nowadays that gets forwarded too. For a while they were drafted. That saved me a huge amount of work. I didn't always agree and I could change it, but I introduced immodest statements. And at first, I felt I could do that reasonably competently. But, as time went by, I got more involved with them in discussing their work and so I felt less and less able to be impartial and neutral in assessing their research. Which is taken very seriously at Berkeley. I don't know if anybody else ever felt that, but that was one thing.

So, I had this vision of being on a slow-moving tram, and, when should you get off. There's always more to do, but on the other hand, it's running out of steam and maybe it's time to go do something else. And I would tell anybody that would ask, if you've been doing something for five years, it's time to think about doing something else. So, after I... In the meanwhile, IBM had funded a huge office automation program on campus, and the PI sort of self-destructed and left campus, and I was asked to take it over. There was a PI who ran an IBM research center and was a campus PI so this was the Bijou? Project and that took up a lot of time. And then, the point that I hadn't mentioned, is that, when I was at Purdue, I got a letter from the Office of the President of the University of California. The background to this is that the Department of Finance of the state of California had done a scathing audit of the University of California's nine campus expenditure on libraries. Scathing. And while University of California has statutory independence under the constitution, if you're not financially independent, you're not independent, as teenagers learn today with chagrin. And the state said to the University, 'we have no confidence in the wisdom of your expenditures on libraries. So we're not going to increase anything, for inflation or for new enrollment, or anything, until you can persuade us you've got your act together on expenditures. And, after a while, this began to hurt, because they were not getting inflation adjustments or enrollment adjustments, or... and don't even think about proposing new buildings. So eventually the steel-trap intellects of the Office of the President decided to do something about it. And they created a position of Executive Director for Library Planning. And they wrote to me at Purdue saying 'would I be interested in this.' Because I was writing about library planning, I guess. And I had a sort of high on this for about a day and a half, and then I realized this was the nearest thing to being a kamikaze pilot as you could find in library land. And I hastily wrote back and said, 'no, I couldn't go to Berkeley.' They hired a guy called Steve Salmon, and he started work in this role the same day I became Dean at Berkeley, and he did a spectacular role. All you had to do is to transform the view of the university libraries as being one library with a hundred... a hundred libraries of one system, on nine campuses. Not nine campuses. You have to get approval from the President, chancellors, the academic senate, university librarians, maybe the librarians, and nominally you should get the students, the faculty, the state department of finance, the legislative analyst's office, and the senate and assembly committees. That's all. (laugh)

RW: Then we'd better stop there.

MB: And he did it.

RW: It's almost time. And he got all those permissions?

MB: He did it.

RW: Wow.

MB: But that's the starting point for the next installment.

RW: Yeah, right. We'll start with that. And I don't know what happened to my recording here, but it must mean that that folder is exhausted. So, we will pick up there whatever time suits in the morning ... that'll give us 3-4 hours tomorrow.

MB: I'm all screwed up because I'm only just getting off South African time.

RW: Yeah, and your three hour time difference here, also.

RW: Ok we stopped yesterday we were right at the point of you switching to the vice- assistant vice president's job at UC Berkeley.

MB: Right. The state department of finance had done an audit that had severely criticized the university and blocked any improvement in library funding. So the library had created a position of executive director for library planning, as it was called then and it was occupied - they hired Steve Salmon who did an amazing job in developing a system wide library plan which had two foundations. A University wide online library catalog - MELVYL. And a multicampus regional storage facility for less used books - one in the north and one in the south. This last group was enormously unpopular with the librarians and the faculty, but the economics were compelling. At that time, conventional library housing the construction costs were 20 dollars per volume and in the storage facility 3 dollars per volume. After 8 years of battling with horrendous political fights, Steve was also - he had also been asked to step in and clean house as chief of staff in the office of the president - a large operation. And almost his first stop was...his first step was to fire the head of personnel who dedicated her present employment career to getting rich. After 8 years he went sailing in the Caribbean with his wife and decided that sailing the Caribbean with his wife was more fun than dealing with university politics and announced he wasn't coming back. But he wasn't willing to resign because - one of the people he'd fired had instigated d an audit, alleging he had misappropriated university intellectual property. And on principle he refused to resign until he'd been cleared. So with multiple crises - one that the first storage facility had been built but the heating and ventilating and air conditioning wasn't working. It could only increase humidity during one of the wettest winters in memory. And somehow grit had got into the paint that was put on the shelves so it was abrading the bottoms of the books, and the city of Richmond had dug a hole in the only access road. Meanwhile legislation allowed academic employees to unionize and the librarian were the first to do this. And the prototype online library catalog -MELVYL-- could be used but they couldn't load new records. And there absolutely was not the telecommunications between the campuses to support them. So it was not a very convenient time for the person in charge to go on leave. And ten days before- a few days before he left, I was asked to step in and take over. They needed somebody interested in library management with experience in large libraries who was not working for any of the 9 campus library systems and was on hand at Berkeley. So there wasn't a large choice. I agreed to take this on, in addition to being dean, on a temporary basis. Meanwhile the title had been elevated to assistant vice president for library plans and policies. That was in addition to the big IBM office automation project. So I was busy. Actually, the IBM project was less work by then. My teenage son made an interesting observation. He said it's dumb to do two jobs for the salary of one. But you know, in the evening over dinner you only talk about one of the jobs. So shouldn't that tell you something?

RW: *chuckle*

MB: And he was right. I was more engaged with the challenges of the university-wide library system and how to solve it. The university made telecommunications for the library catalog one

of the top university priorities and - once the plan had been in place-- it was possible to start proposing new library buildings so that had to become the university's top priority - library buildings. I wasn't responsible for dealing with the buildings, but I got involved in it. This involved helping to deal with the legislative analyst office and finance and so on. I agreed to be a candidate in the search for a permanent assistant vice president for library plans and policies and was appointed and resigned the deanship.

RW: Were you ready to leave as dean?

MB: Yes.

RW: You were?

MB: Yes. There was more to be done, but I felt that I'd... I did 8 years. I do think that people tend to stay in jobs too long or did then, anyway. And you know, there's a limit to how many things you can do. It was the case that I had been rather neglecting my deanly duties because of the work of the system wide administration. It was an exhausting thing. The office of the president is kind of like corporate headquarters. Somebody ought to do a sociological study of corporate headquarters - it's different. They're so much more oriented to Sacramento and the state authorities than to the campuses. And it was full of people who had been there a long time and had nowhere else to go. I mean there's nowhere else like it. Unless you're willing to go and work in the SUNY system or something like that. That's different and it's a long way away and that's not where your family is and so on. But the brutality of the politics was my ogre, and in the end I got caught up in it. I felt that I could not do my job conscientiously without engaging in conflict with powerful others and in the end I got ground up and I went on vacation with my wife in Greece and decided that that was more fun than being assistant vice president for library plans and policies and when I got back to tender my resignation, I was told that I was going to leave.

RW: Oh?

MB: Because I was being told I was going to give up the job, I got 6 months leave on full pay.

RW: And this after what period of time?

M: Four years.

RW: So some period of time as interim and then as...

MB: One year as interim and then basically three as the real thing. There were enormous conflicts over telecommunication because telecommunications was deemed an administrative responsibility by the administrative side not by the academic side. But they operated on a recharge basis. They only did what somebody would pay for. I had a budget line of a million dollars a year from the state to pay for telecommunications. We wanted to build a packet switch network, and they didn't. They wanted to use the OSI stack. In Brownrigg and Clifford Lynch we

had the talent to unilaterally build the first packet switch intercampus network, and we did that unilaterally. And sitting on a million dollar a year income stream and running a really successful intercampus network designed with redundancy satellite linked between the north and the south to keep backing on the state police- the highway control network direct line of sight radio where feasible, like Berkeley to SF - and at least telephone lines. So each campus had two paths in using different media. It was amazing. And then also we built our own -- well Steve Salmon had built an ambitious computing facility to run the online catalog. The specific issue was that as part of these conflicts, I had to expand the computer room - the chilled computer room - and was denied permission. You could make some leeway by buying better disk writes with higher capacity. But ultimately we had to stop loading catalog record into the university's online catalog because I could not get permission to expand the computer room. And that created such a crisis that my supervisor organized a retreat to resolve these problems and during that retreat these responsibilities were taken away from me without warning.

RW: By someone else in the president' office...?

MB: Yes. I was annoyed by that. But it was a very difficult role. I learned a lot - I must say I learned a lot. Supervising a computer center is not an easy thing. Because they know so much more than you do.

RW: Ok now Michael, were you all building this packet switching network in imitation of what the folks were doing with the developing Internet, or the NSF net or...?

MB: It was... I had two extraordinary talented people working for me - Edwin Brownrigg and Clifford Lynch. Brownrigg was the director of the division of library automation. Steve Salmon hired him. And he'd hired Clifford Lynch, who was quite young then. And Brownrigg and Lynch were an extraordinary team. Brownrigg was very much into radio technology and packet switching. And Clifford was this sort of prodigy at computing. And they worked together. They had different emphases and they worked together. And they were very effective at leading a large support team. It's contrary to all reasonable expectations that the office of the president could develop and create service like this - build it. Bolt, Beranek and Newman -BBN- were our attending consultants and it was just done, largely under the radar, so to speak.

RW: Under the radar of the folks there, you mean.

MB: Yes. And they couldn't do much about, because we had the income and the talent and the need. The online catalog was actually the first application requiring non-stop real-time intercampus communications. Everything else could be done batch mode.

RW: And where is the income stream coming from?

MB: The state of California.

RW: Through tuition and such.

MB: From the state to the university. It was made a campus priority, and the legislative analyst - these are the meanies - when we made a presentation to him said are you sure that's enough?

RW: *chuckle*

MB: So it was a line item in the university's budget. That's the next best thing to an endowment.

RW: And this is all of the UC system?

MB: Yes, there were 9 campuses in those days. Each campus has its own personality and the centrifugal tendencies were extreme. Each of the university librarians tended to have a higher loyalty to their campus chancellor than to the system. And you had campus rivalries.

RW: And how did you deal with all these internal politics?

MB: With a good deal of wear and tear. And then you had the faculty distinct voice and the campus administration distinct with a voice. Nine distinct voices. But there was an imperative. I mean there was a kind of blackmail by the state. Do not even consider asking anything for library construction or any improvement for inflation or workload for library services until you have a coherent cost-effective single university-wide library plan. And then do it! I mean, that was the reality. And much as people didn't want to know, that was the fact.

RW: Who was making this demand?

MB: The state.

RW: The state was?

MB: Yes.

RW: Through?

MB: Well the division of finance and the governor's office. An episode I remember: At UC-Davis, the library had done a weeding operation, and all the books that were rarely used they put little slips of orange paper on them. And the timing was unfortunate, because budget analysts from the state were going to a site visit of the, library, because the two case-making proposals was to be a brand-new library for the UC medical school. The the University of California at San Francisco was a medical school only. Medics, doctors, nurses, and so on. And the other test case was at Davis, where you have a U shaped building and the plan was to turn that into a complete box by putting an extension across the gap. And these were precedent setting proposals for getting library construction going again. But we were not allowed to propose them until we had built the Northern Regional Library to facilitate some storage. To which the northern campuses had to shed hundreds of thousands of volumes - remove them from the campus and put this - store them by size and in accession number order into this facility. With enormous commitments in terms of record delivery. It formed a package with the online catalog, you see. So these were

crucial precedent setting building proposals. In San Francisco, the case was fairly straightforward. I mean, library conditions were appalling. And when there was a site visit there, they would take them into the library through the animal labs with the stink of the animal urine. And the constraint was... you weren't supposed to build any building with more than two years projected needs. And in San Francisco the architecture of the site meant it was cheaper to build the bigger thing than do it in two phases. One now and one later. So that was nice. At Davis, there was a site visit by budget analysts from the senate budget committee and others, and when we got there -or before we got there - this was so carefully orchestrated and rehearsed. You had these areas of the library that were waving sheets of- you know-- fields of these little orange things, which indicated these books aren't being used. So I tried to get them to take them out, and they wouldn't do that. And I tried to persuade them to put up a sign saying "Yellow slips indicate our readers have enjoyed these books." And they didn't realize this was a joke and they weren't willing to go with it. What I did get them to do was do some research on which the walk through the library minimized the exposure to these yellow things. But even so, at the end of that day, the analyst from the senate budget committee looked at me and said. You're not serious about keeping these books, are you?? I mean, it was so distant from where the faculty were. But it worked, and for a while 30 percent or more of the university building budget was library buildings for a number of years. There was a lot to catch up. And Steve Salmon had done his work extremely well. He didn't get the credit he deserved. And then he and his wife sailed off around the world and I never heard from him again - literally. Now the plan was a 10 year plan and it had commitments - agreements in it - that the state would honor inflation adjustment for books which were higher than the general cost of living and we worked with the state librarian to make sure that the figure was not lower than it should be. And they committed to adjustments for increased enrollment. And there were other formulaic provisions. So this plan was generating money like a fire hose and new buildings. And the state honored it, the state overlooked the fact that it was a ten year plan and 10 years had gone by. My task - part of my task - was to do a sequel plan. Plan for the development of libraries. And I had to do the same kind of politicking that Steve did except the ground was much better prepared. But when we'd done it all - and a lot of this had to do with the role of digital resources to supplement or even replace paper. This required a lot of changes in the way people thought about libraries. For example, reference librarians needed to talk to the database people because reference books would be-

RW: Hold on a minute-

[some parts of the interview may be missing below or above]

RW – Hold on, Sam has some coffee.

RW – Rejuvenated [by the coffee], that's great. Alright, you describe the end of this job as not at your behest. So, what can you tell about what happened and why it happened, those kinds of things...

MB – To the extent that I know, the university librarians got angry. Well they... had a difficult situation. I was unable to carry the university librarians along with me in what I wanted to do, for quite compelling reasons. It involved a massive shift from their autonomy to being part of a broader plan orchestrated by the office of the president. So, in a way they were losing out politically, but gaining economically. And, these were talented, headstrong people; their support for what I was doing varied. The bigger campuses were less cooperative than the smaller ones, as you can imagine. And it was also clear that I had not been entirely successful in the battles within the office of the president, which were brutal and ruthless beyond anything I would've expected.

RW – Over money, or authority, or control?

MB – Specifically control of telecommunications in the division of library automation, which is most of what I did, were unilaterally taken away. Because it had to be... the conflicts had to be escalated to the level of senior vice president. There were two senior vice presidents; I reported to one and telecommunications and administrative computing reported to the other. And eventually the president got tired of this, and had a meeting in which he told the two senior vice presidents that they'd better get their act together and not bother him with these conflicts or else he'd be looking for new senior vice presidents. And, or so I was told. And this resulted in the telecommunications and the division of library automation and its computing operation and telecommunications operating being reassigned, from the senior vice president for academic affairs, that I reported to, to the senior vice president for administration. So I was left with a much smaller role, responsible for policies and planning, and an advisory role in construction of libraries. Which I did. But, as I said, having gone on vacation with my wife, driving around Greece and deciding that was more fun than dealing with the office of the president, I came back to resign. I had retreat rights to the school as a professor. But before I could do that I was told that my appointment was ending.

RW – Appointment as Assistant Vice President.

MB – Yes. Well it was a term appointment, you know.

RW – Right. Now, ordinarily, from what I know about other situations like this, the pressures, the political pressures, come from companies like AT&T, telecommunications companies and IBM and such. Was that the case here?

MB – No, not at all.

RW – It was all coming from the individual campuses...?

MB – It was all a power struggle within the office of the president. There was a... there was great tension, there was competition between the campuses. The well-being and health and employment of university librarians was in the hands of their campus chancellors, not the

system-wide administration. And evolving technology, and economic and political pressures from the state, mandated a more integrated system-wide structure, with the adoption of new technology as well as the long-term consequences of the audit. This mandated a more integrated system. Inevitably, this increased the role of the office of the president, the corporate headquarters, which for library purposes was symbolized by me. The university librarians were losing out in terms of autonomy and being forced to have a split loyalty between the people who hired and fired them and the office of the president. So, you can see, this was a difficult situation. Now, to me, there was an imperative. The resumption of proper funding for libraries was absolutely conditional upon the implementation of Steve Salmond's plan for library development. And that was based on two non-negotiable planks. One was the online catalog for the hundred libraries of the nine campuses. From a policy point of view, a student at San Diego should be able to use books bought at UC Davis, and you can't do that unless you know what's there. And, incidentally we estimated we would save a million dollars in labor costs if you stopped filing catalog cards. It's a huge system. It's a great mountain range in the university landscape. Comparable to all the university libraries of Australia, as I told the Australians. I did a wicked thing once. I was in London and I had lunch with the head of automation for the British library, and I leaned over and said, "the University of California's always willing to cooperate with smaller libraries." [laugh] I did so enjoy doing that. I apologized immediately. You know, it's a great 800 pound gorilla on the scene. You can do things if you're an 800 pound gorilla that you can't if you're a small chimpanzee. So, the unhappiness of some of the university librarians resulted in ... the vice president of academic affairs, and the senior vice president for academic affairs lost control of telecommunications and the division of library automation, and I was sent back to the campus. Now, it didn't surprise me that... it wasn't long before they had to reinvent my role, and hire someone else to do what I did. And then they called it the California Digital Library.

RW – This is Clifford Lynch then.

MB – Yes. I don't remember when they changed the name, but he reported up to the ladder for administration. And, his talent made him de facto in charge of these operations. Brownrigg left earlier. And then Clifford Lynch was touched to go to direct the Coalition for Networked Information. And, he had completed a PhD in his spare time in computer science, on the Berkeley campus, while building MELVYL and building the network and everything else. It was on why relational databases couldn't handle bibliographical systems at that time. He wanted to teach but his travel is incredible. He sort of lives on airplanes. His office is in Washington, D.C., his home is in Emeryville next to Berkeley. And it really doesn't matter except remembering when to get... which airport to get off the plane. But he could not teach because he could not commit to being in Berkeley the same day two weeks running. So, we cut a deal that we would do it jointly, and if he was present he would hold forth, and if he wasn't I would fill in. And this came to be known as the Friday afternoon seminar, now in its twenty-first year, of Topics in Information Access. Every Friday afternoon at three pm. And it's that time because

when he worked at the office of the president that was the most convenient time for him to get off, 3 PM on a Friday. It's antisocial time. Nobody would dream of scheduling anything then. But for people who work, it's a good time.

RW – This is a for-credit course?

MB – Yes.

RW – Anybody can sign up for?

MB – Anybody. Well, it's intended for our own graduate students. Everybody's invited. I put out a weekly announcement that then gets widely bounced, reflected, and in fact most of the people who come are either not in the school, or many of them are on campus. The attendance is modest. It varies greatly with the topic and the speaker. A lot of the speakers are due to Clifford's contacts.

RW – Have these been recorded ... anything like that?

MB – No, nothing. Today, Clifford's filling in because the speaker we wanted couldn't make it, and he's going to do a ... Coalition for Network Information conference earlier this week. Next week Marcia Bates, who's retired and lives near Berkeley, is going to give her ideas on how information...how humans do information retrieval. And, we've got a couple of slots that we've yet to fill at the end of the semester. But I digress. But that's been part of the scenery.

We were just closing out my period at the Office of the President. One thing worth mentioning is that, here I was, having negotiated a revised library plan--and I did it... I drew on my experience with the management ...analysis program at Purdue. People don't like to be surprised; people do like to be consulted. Skillful writing can often lead to the resolution of conflicting situations. Eventually I had a updated version of Steve Salmonds' plan, and the question is, what to do with it? The decision, which I fully supported, was to suppress it. And, there were two reasons for this. One is, when people talk about plans and planning, they tend to forget that what's important is the fact of planning, not the physical product, the plan. Planning is evidenced by consistent, anticipatory decision making. Which means that, when you need to make a decision, you've got... when you have a crisis you have a certain set of decisions already prepared for it. That's anticipatory. And, consistent means that you don't undo the benefits of one decision by making a contradictory decision with the next crisis. So your decisions need to be consistent with each other and with what you're trying to achieve. If you do that, you're planning. The opposite is not so much bad planning, as an absence of planning. Lurching from one crisis to another and doing firefighting too late. If you're doing that, that's good. The plan, as a physical document is nearly always a political tool. It's to reassure people or it's to get money approved. It's a tool. And the plan versus the planning are different things and shouldn't be confused. A physical plan, a document, is no substitute for managing in a planning way, and if you're managing in a planning way, you don't need a paper product, unless there's a political

need for one. So, we were doing planning, pretty well. The catch was that the state had forgotten that the old plan, the ten-year plan had expired, and the university was being hosed with money--because they honored the formula in it. So, a really foolish thing would be to say, 'hey, you know this formula that caused you to send us so much money... well, actually the justification for them expired last year.' [laugh] because it would immediately go to zero, and you'd be back to square one. So the plan was suppressed. Now it seemed to me a waste, so the upshot was, that with agreement, I took the text and systematically removed mention of the University of California from it, and distilled it. After I'd got it to my satisfaction, I spent most of a whole summer rewriting it sentence by sentence, and polishing it. It got shorter and shorter, and clearer. I like the slogan 'concise, precise, and incisive.' That was what was published as my booklet, 'Redesigning Library Services: A Manifesto' published by the American Library Association. Michael Gorman had arranged with the American Library Association to initiate a series of books-- you know, books for the libraries of the new millennium or some such title, and this was the first and only one in that series. ALA seemed to think it was about computing, and so it's all rather well ... and it was promptly out of print because computer books are quickly obsolescent. Which was a pity because it wasn't about computing; it was a lot about the distinction between means and ends. Between process and purpose, and how the rise of the new technology didn't mean any change in libraries' purpose but a whole lot in terms of process. It was a sort of essay--a reflective essay--on what it means for library service now there's are choices of technology. That's how I saw it. And I had a very specific view based on my involvement in committees-- faculty library committees on the campus, academic ... library committees. What guided my writing and revision was this: frequently universities decide they should consider having a new library building, or remodel, and or they need a new university librarian. And they appoint a committee, most of whom are not professional librarians. What would be the most useful document to place in the hands of a committee member as they launch into discussing whether they should have a new building, discussing what to do about replacing the university librarian, or a strategic plan for the library? Assuming that they're not professional librarians what would be the most useful single thing to give them to read? That was what the book was intended to do. It's about eighty pages--small pages. And, this reinforced an interest I'd had all along, in technical writing. At Lancaster I was quite proud of the technical reports that came out. By the time they had satisfied Graham MacKenzie and Ian Woodburn, or more especially Tony Hindle and myself, they'd been stroked and polished so the writing standard for those reasons was pretty good. And, I like writing; I enjoy writing, and I think that technical writing is an underestimated skill--and I was acquiring a taste for popular writing. Which that manifesto was an exercise in. That's also one reason why the ... contains so much explanation of background and contents; it's not written for a specialist. It's written for the educated general reader. So that's ... that little booklet is a direct beneficiary--result, of my work as a librarian. I had six months leave on full pay, and then went back to the campus and immediately did what professors do best, namely to go off on sabbatical. Because I had accrued sabbatical leave at an accelerated rate, Dean Anders, the Assistant vice president, agreed. I went to Australia and

Austria Well, in 1980, when I had been dean for four years, and was exhausted, I asked for research leave. It was really sabbatical but technicality was called research leave. We went back to where my wife grew up in Austria--or rather the nearest university about forty miles away. In a little town called [?], very close to where she grew up. And, it's just beautiful scenery. Very... it's about fifteen miles from the [?] border, lakes and alps. And they had a tiny little university that was just about ten years old, specializing in training teachers. And we lived there... we were there for about four or five months. There were huge problems for the children, which we put in the local school, and they were very badly treated. I wouldn't have done it... I wouldn't do it again. We didn't realize ... until it was too late. But for me it was wonderful. Here I was in a situation with basically nobody to talk to and I was the guest of a Dutchman who had gone there as acting rector, as professor...and there was a library of sorts, but very little relevant to what I was interested in and nearly all in German, which was too difficult for me. I was reduced to thinking and writing. I took with me data from the last of the projects at Lancaster, which had never been properly analyzed. The work that had been completed had to do with making the library adaptive to changes in demand, specifically loan periods, duplication so that whatever the increase or shift in the demand for documents, the library would ... and, what we discovered was that the demand for library services is hugely sensitive to what is provided. People adapt. So you've got a sort of doubly homeostatic system. By making the library stock policy the purchase of duplicates ... loan periods, responsive to the pattern of demand, the library had become much more adaptive. But what people hadn't appreciated is that the demand for library service... If you get disgusted and you can't find anything you don't go there anymore. If it's a quiet, comfortable place and you can always find what you want, you go more often. It's what economists call elasticity of demand. And this is what I sort of addressed in my dissertation. So therefore what you need to do is not only build models of how the library might respond, but you also need to build models based on how the user might respond. So, we got money... We got money from the Council on Library Research ... actually. And that ... to model the elasticity of demand and user behavior we collected some very interesting data, in which we got a stratified sample ... and we paid them a small amount of money. We gave them psychological tests you wouldn't be allowed to give now. We would send them at intervals a two-part questionnaire. And, the next time they went to the library they had to fill out part one. And as they entered the library they had to jot down what they intended to do. In part two they had to keep a diary of what they actually did. And, one of the things we learned was that what they did was exactly what they intended to do, in detail which wasn't obvious. The other thing we learned was that it was too complex to be reduced to a model. The factors involved... the decision... what have you. Jeffrey Ford [?] who took over for me at Lancaster, did some qualitative analysis. He came up with three categories: workers, lurkers, and shirkers and variations. But it hadn't really been analyzed, so I took the stuff... I got a copy of the questionnaires, intending to try to analyze... by that time the research program at Lancaster fizzled out.

And that was what I was going to do ... but before I did it, I had been irritated, bothered, by two things. One is that the individual faculty members of the school [at Berkeley?] were not as

interested in what each other did as I thought they ought to be. And second, we had by this time made a major strategic investment in diversifying the range of interests at the school, management, particularly archives, and other things. Now, we did this because there was a campus committee mandating us to do it, and we did it because it felt right; it was the right thing to do and it made sense in terms of evolving the field. The phrase we used, at least I used, was jocular: The marking and parking of documents for folks to use in whatsoever context. That was the scope of the school. Those words. People would smile, but that really was what we were doing. That's different from saying, 'we're going to educate librarians.' It's broader. And, it seemed to be working. But, it was not the case that we worked through a conceptual rationale. We had the jocular slogan, we were making changes, but it needed thinking.

MB – [I told you but not on the record] how I nearly didn't get my PhD...

RW – Oh right.

MB – in which case I wouldn't have been sitting here. Where were we?

RW – You could have been rich.

MB – We were talking about something.

RW – well you're back as a real, regular type faculty

MB – Yes, doing what faculty members do best, going on sabbatical. And, I was talking about my first sabbatical, in Austria. Beautiful area. Family had all kinds of problems. We were cheated by the landlady, we were diddled by the car salesman we bought our car from, the school district acted irresponsibly to the children, and we were harassed by the local police. For me it was wonderful. We got involved in some family problems...

RW – Your kids were how old at this point?

MB – My daughter would have been fifteen. And my son about twelve. Anyway, for me it was wonderful. I had taken this material from Lancaster intending to try again to do the analysis of the material ... but before that, I was reacting to two problems at the school. One is that the fact that I was individually ... as I felt they ought to be.. and the other was, we'd made this major strategic shift in the mission of the school, and while it felt right, and we'd been told to do it, and it seemed to be working, it was not the case that it'd been really thought through conceptually. It hadn't been theorized. And it seemed to me that it ought to be. So, I decided to think about that, get that out of my brain, before turning to analyzing the Lancaster data. And I did it by starting to write little essays, writing ... thinking. I started writing these little essays to myself on these two different topics. And then I decided these two different topics were the same topic. It was how everything's related to everything else, within the scope of the school. And why an individual faculty member ought to be interested in what the colleagues were doing. And unless you can tie the pieces together then you could not have a coherent account of what the school

was about. And, I worked... first I decided that these two different problems were the same issue. Then I decided that this was more important and more interesting and bothering me more, than analysis of the Lancaster data. And so I decided that, like Einstein, I'd do the special theory before the general theory, and I'd try to work out, as a test case, library services before addressing the broader family of library services that involved collections. Or generally, archives, records management, museums, databases. So, if I could work it out as a test probe on libraries, how everything was related to each other and how it splits into its contexts. If I could crack that, then I could try to generalize. I saw it in biological terms, you know, you have species within a genera. And sort of comparative anatomy was the way I thought of it. ... And I simply wrote it out of the top of my head, in this office with a lovely view. Actually the view wasn't too good from my office because there was a building blocking the view, actually the building ... Keratkin? Mountain range. Austria, what's now Slovenia? I just wrote to and finished the text, pretty much, in the four or five months I had, and then when I got back, I spent time in the library adding the citations and references that made it look respectable. People don't fully appreciate that that's often how books are written. It's not. Doctoral students tend not to know this, but very often it's not the case that you go to the literature, make a synthesis and then write a text. In this case, it was drawn from everything I'd known and learned, as a librarian at Lancaster, as a researcher at Lancaster, as a library administrator at Purdue, as a dean at Berkeley for four years. Everything I'd known and absorbed went into this. And then I came back and made it respectable by decorating, garnishing it with references and citations. I mean, very often it was something I knew and remembered, I just hadn't gotten the citation at my fingertips. And that was published as *Library services in Theory and Context*.⁶ And it went to a second edition, and was... some...[?]. But that was always intended to be the special case which could be generalized. So then I had to wait for my next sabbatical to do the more general one. And after I had parted ways with the office of the president, I immediately set about ... getting a sabbatical. I was quite happy to go back to Austria again, but I got a letter—email-- from Boyd Rayward, who had left Chicago and gone back to his homeland in New South Wales and had become the head of the library school/archive/information science school at the University of New South Wales, which is a suburb south of downtown Sydney. And he said Australia wasn't quite as good in Alps as Austria was and why didn't I go to Australia instead of Austria? And that was agreed upon. They do have a few Alps. But, he was having difficulties rejuvenating the school, which needed it. He had brought the highly intellectual approach of the University of Chicago to bear on ... let's say, to a context that was not that way. This had not been appreciated by the faculty as he tried to raise standards and make everything more rigorous. So there was a little bit of a stalemate there. He arranged a visiting professor appointment for me with two obligations: I would do a seminar and a Thursday evening seminar for grad students, much like the ones I did in Berkeley; and I would engage in discussions on curriculum. The specific problem there was they'd designed a monolithic curriculum, and had difficulty making any changes to it, other than replacing it with another monolithic curriculum, which was too much to do. So I never really got

⁶ Michael K. Buckland, *Library Services in Theory and Context*. Oxford; New York: Pergamon Press, 1988.

involved in detailed curriculum design, but what I was able to be helpful in was trying to get the individual faculty to allow a little change here and there ... and the key to this was to show them that they were actually teaching more than they needed to. That with a few changes and making the students do more, they would have less of a burden. That helped. And so eventually changes were made, but they were after the six months I was there. Six months is important because if you linger in Australia for more than six months you're certainly liable to encounter legal residence ... you wouldn't want to know about. So the thing to do is stay there six months minus one day. We rented an apartment at Kuji? Bay, which is like the famous ?? beaches and I would wake up in the morning--I would usually wake up before my wife, and I'd go and read and watch the sun come up over the Pacific Ocean, and then when she'd wake up she'd brew the coffee while I'd go around to the local bakery and get hot bread for breakfast, walk along the beach. That's easy to adjust to. And then I would write during the morning and then in the afternoon we would often go for a walk. We bought a book of self-guided tours called, *Sydney Footnotes*. And then in the evening, we'd watch a movie on tv.... I'm ready to do it again! [laugh]

What I was working on there was primarily a sequel the more broader topic, broader coverage, of what I'd done in *Library Services in Theory and Context*. And, the sticking point had been that I'd wanted to include museums, but as of 1988, the concepts and terminology prevalent in information science were not ready for stuffed animals as documents, or museum objects, I'll say. I felt they ought to, but they were not. And I didn't quite know how to deal with that. Now, while I had been both active in the school, where I retained an office, and at the office of the President, which in those days was in a building known as University Hall across the road from the west end of the campus, I would walk to it from about half a mile. And I would walk past a huge building, the life sciences building. Which, when built, was the largest academic building in North America. And there was a little doorway there, with a sign next to it saying Museum of Vertebrate ? And I'm a sucker for little museums, but it was never open, the door or the museum. Then one day I noticed a little sign which said, 'we're going to have an open house. It's the first open house in seventy-five years, and it's Saturday.' And I said, 'I'll go.' And I was unable to persuade any of my family to go with me, and I figured I might not be interested if I waited another seventy-five years, so I went on my own. And they had skeletons of revolting looking things in dubious liquids in glass jars. They had skeletons. They had a display with pelts of animals I'd never even heard of... but what really caught my attention was beautiful cabinets, like you have for maps. And you open a drawer, there laid, in rows, were dead woodpeckers and dead sapsuckers, with little tags tied to their feet. And I gazed at this, and I had the unworthy thought, the campus is so short of space, they're using prime campus space for dead birds. I mean, really. It's true. Berkeley spaces are more difficult to get than either staff or money. Now, it all seemed irrational to me, but Russell Akoff?, one of the pioneers of operations research, had visited Lancaster where a friend of his had founded the first British department of operational research, and I'd met him. And he'd made a remark that then stuck with me. He said if something appears to be irrational, it's probably merely that you just don't understand what the rationale is. And this has saved me many times from making mistakes. So I remembered this

and I thought to myself, ‘these dead birds in trays feels irrational to me.’ If there were a rationale, what on earth could it be?’ So then I thought to myself, well, it probably has something to do with the University mission and possibly are research material for researchers to work on to discover what wasn’t known or was known but they didn’t know it was known. Or it could be instructional material so that students could learn. Either way it has to do with learning, and if you accept that proposition, as a librarian it’s clear; it’s a dead bird lending library--or rather, non-lending library. And functionally, in terms of the university’s mission, it’s no different from the books on the library shelves. It’s just a different kind of document. So there was a period of time when anybody who couldn’t run away fast enough was subjected to [by me] a harangue of dead birds as documents. This was shortly before I went to Sydney, and when I got to Sydney there was only one person capable of stopping me in my tracks, and this was Boyd Rayward. I was in his office and was going on about dead birds as documents, specifically woodpeckers and sapsuckers, and he said ‘Stop!’ And he reached out behind me and handed me a photocopy of a page, in French. It was my idea, but it was a live antelope, and it was written fifty years before. Well, forty years before. And this was my first encounter with Suzanne Briet and her notions of discussions of whether a live antelope could be made a document. So, yet again my best idea had already been had by somebody else. But it impacted me, and I continued to write. I was working on the text of what would eventually be published as *Information and Information Systems*.⁷ And the principle challenge in that book was that, as long as I was writing about library services, you could sort of take the definition of document or information as a given; it’s books and periodicals and a few other odds and ends. But if you’re going to generalize to records management, archives, databases, or museums, you really have to address what you mean by information. And that was a problem. So, I found that Briet and I had got an approach that would work, but, in this and other things I felt that I wasn’t... it wasn’t clear to me that anybody else had sorted this out, and if it was new to me, it might be new to other people, some other people, not everybody, but some other people. And that would justify an article on it. So I simultaneously incorporated it into the draft of the manuscript for the book, and wrote it up as a separate article. That was entitled “Information as Thing.”⁸ And I think that the notion that ‘it was new to me, it’s probably new to other people’ was justified by the attention that article got. I continued to work... the material in the article sort of diffused a bit within the book. But they were written basically simultaneously. And, when I got back, I found the library had a copy of Briet’s book/booklet/pamphlet--which is very scarce. By then I’d heard of Otlet but I only knew he was associated with FID and the UDC? ...

RW – You hadn’t read Boyd’s book?

MB – No, I hadn’t read anything of that.

⁷ Michael K. Buckland, *Information and Information Systems*. New York: Greenwood Press, 1991.

⁸ Michael K. Buckland, “Information as thing.” *Journal of the American Society for Information Science* 42(5), 1991, 351-360

RW – The book was ten or fifteen years prior...

MB – I knew Boyd was interested in Otlet but that was all. I hadn't done any historical stuff since graduating my bachelor's degree. Actually, there's a little diversion; I nearly did. At the Sheffield school, although it was only a nine month program, one third of the program was writing a little thesis on the topic of your choice. I really liked that. In my bachelor's degree I had specialized in the social and economic policies of the ministry of Sir Robert Peel, 1841 to 1846, in depth. I was very interested in that period. Now that's the period when the Mechanics' Institute libraries got going, more or less, in Britain. And I knew, or discovered, that the Sheffield Public Library had emerged from one of these mechanics' libraries. And so I went ... so I decided I would do my mini thesis on the origins and history of the Mechanics' library in Sheffield. That I was qualified to do. So I went to the library and I got them to let me look at the minute book of the library--you know, the chronicle of the meetings and so on, in lovely copper-plate writing. And, I got it in my hands and I sat in this reading room and the sunlight was coming down in shafts and it was kind of dusty and you could see the sunlight. And I looked at this book. And I suddenly said to myself, 'you know, there's probably something more useful I could do.' I gave the book back, and I went back and launched into a study into how inter-library loan could be speeded up. [laugh] I mean if there was a pivotal moment/epiphany in my career it was that. Anyway, I... when I got back... I pretty much finished the book by the time I got home. After six months minus one day in Australia I then went back to Austria. We went on to Austria. Many Americans aren't clear on the difference between Austria and Australia but they're in different parts of the globe. There's lots of scenic routes from one to the other, and so we went by way of Hong Kong and Singapore and Bangkok and Bombay and spent two weeks migrating across India. If you want a contrast, go from Delhi to Frankfurt. [laugh] Where we picked up a spiffy new VW Vanagon.

RW – You were driving? Taking ships and then driving?

MB – We flew, and in India you put your hands in a company that provides a driver and a car. You'd better! We did car and plane and train in India, but under the strict guidance of a company. You have to do that--I had to do that. In Frankfurt we picked up this lovely VW camper, fitted out with everything, and drove south to spend Christmas with the in-laws in Austria. And then, picked up a Fulbright research fellowship in Graz? Graz is where Schwarzenegger comes from. And, it's bottom-right hand corner of Austria. It used to be an important town, but with the Iron Curtain it was not a way to anywhere and it sort of sagged. It was where Viennese bureaucrats retired because the weather's nice-- at least it is in the summer, less so in the winter. And there I maintained a very low profile, and wrote and wrote and wrote. And then we did seventeen thousand miles wandering around Europe in this Vanagon, looking for castles and parks and quaint medieval towns.

RW – What year is this?

MB – That was '88-'89. The academic year... I knew enough math to know that if you leave at the beginning of the summer, take an academic year and then the summer following, you'll get more than twelve months in. That was '88-'89. Basically, it was '88 in Australia and '89 in Europe.

RW – Now your kids are gone, finished high school and all that by this time?

MB – The kids are gone by then, although my son came out to join us briefly. My crippled mother came out to join us in Australia and then again in Austria. And, we just had a wonderful time driving around. Now, the Fulbrights are administered by the State Department, and the State Department has cultural attaches all over. And, they run libraries, American libraries, under various names, or used to, and it was generally the librarians who had money to arrange for Fulbright scholars to give lectures--public lectures. So, I got invitations from all over Europe from the cultural attaches' offices, from people who are mainly like librarians who couldn't pass up an opportunity to invite a professor of librarianship to give talks. And that funded trips all over Europe. I accepted some and not others. But we went down into Yugoslavia as far as Sarajevo. And Spain, and took the opportunity to travel slowly in the Vanagon, and Eastern Germany... West Germany, and then into East Germany, before the Wall came down. The Wall came down just after we got there. And, I'm so glad I got to see Communist Germany before it disappeared. There's another whole story associated with that, but that was a very interesting experience. I stayed in an apartment within a mile or two of where Goldberg lived, although I didn't know that at the time, of course. So, after I got back, I decided to read everything I could find about Briet, I wrote a little article about her for JASIS.⁹ and that was picked up by the French--who'd equally pretty much forgotten her-- so that article in JASIST was republished in French.¹⁰ And since then, I've written a number of things, all in French, an encyclopedia article about her and so on. And, in fact this inspired a young academic at the Sorbonne to write her habilitations, which is what you write to get tenure, in effect, on Briet and her context... So this is reflected in the presentation at ASIST the year before last, on the young women who transformed American librarianship between the world wars. That was my... In a round-about way, it was triggered by Boyd handing me the Breit copy.... And that's a great story. And then I started to read Otlet and I managed to borrow a copy of his *Traite*... Eventually I got my own copy. I got an email from somebody who said 'I've got a copy of Otlet's *Traite*, do you want it?' The reply was from Israel and the price quote was \$800. I thought about it. That's more... I'm a cheapskate, and I didn't really want to do that, but I decided I would, but before I replied I got another email saying, I meant \$80. I paid nearly as much for the fees for wiring the money as I did for the book. And that was... Now, I could do this because of the enormous amount of French vocabulary I'd done in high school. I couldn't write it but I could read it. So I had no

⁹ Michael K. Buckland, "The centenary of 'Madame Documentation': Suzanne Briet 1984-1989." *Journal of the American Society for Information Science*, 46(3), 235-237 (1995).

¹⁰ Michael K. Buckland, "Le centenaire de 'Madame Documentation': Suzanne Briet, 1894-1989." *Documentaliste: Sciences de l'information*, 32(3), 179-181 (1995).

difficulty--not much difficulty---in reading Otlet and Briet and their context. The more I did this, the more I felt like an archeologist who'd discovered the traces of a lost civilization in the jungle or something. And nobody else knew about this, as far as I could see, except for Boyd. Hardly anybody.

Then I got more and more irritated with these mindless quotations of Vannevar Bush as the father of information science. Because I knew that could not be right. There had to be more of a story. At Champaign-Urbana someone wrote two papers on the citing of Vannevar Bush as a cultural gesture documenting that this almost mandatory ritual of citing Bush and his article was often done when it was irrelevant, or you could plainly see the author hadn't read it, or it was just an attempt to make your article respectable. And it really got to me. It really annoyed me. And one day I had read one too many of these silly citations of Bush and I said, 'I'm going to find the rest of the story. I, a librarian, will find the rest of the story.' And I went over to the library to find the rest of the story, not knowing where to begin. The only thing I could think of was that I had a vague recollection that Robert Taylor, whom I greatly respect and have known, had written something critical of Bush. I wasn't sure what it was or what it said, but he's almost the only person who'd done that. I found that in the first issue of a British journal called 'Computing Journal' or something, there's a lovely article that's reprinted in his book of essays called 'Information Retrieval.' And it's a kind of beautiful writing he does. He says, well, there's this article by Vannevar Bush, whom he likens elsewhere to a Yankee in the court of King Arthur, and he says there are a few problems with this essay, "As We May Think". He forgets his own assumptions, he doesn't really know what he's talking about; he's got it all wrong. And, not a single one of the ideas in it is new. Now I was in a position to know that. That's not what people normally say about Bush. And in this beautifully written essay which concludes it's so—that we should be so grateful for Bush, because this article opened people's eyes and purses for information retrieval. There's a single sentence which says... it talks about the imagined Memex, and how this is a fantasy based on an actual machine that Bush tried to build with his graduate students and microfilm, the rapid selector. ... and it turned out I knew by chance one of the graduate students who'd worked on it. Anyway, Taylor has a sentence which says a similar machine appears to have been developed by a Doctor Goldberg of the Zeiss Ikon Company in Dresden around 1930--that's eight years earlier. So who was this guy and what had he done? And who knew about it? And, so I spent more than fifteen years doing detective work on who was this guy, and what did he do, and who knew about it, and how come it had been forgotten?

RW – I remember in '96 when we were holding those meetings preparatory to the first CHF Conference, that you were just then in the process of digging out stuff from here and there, and how excited you were by it.

MB – Yeah, the way I identified who it was as follows. At Sheffield, which was an engineering school, the reference collection was weak. And so, in the course on reference work taught by Sam [Steich?], who'd gone there from the Birmingham, England, Public Library, reference library, which is one of the great reference libraries of Europe, was a series of lectures in the fall. 'There is this reference work called

so-and-so, and it's good for the following purposes. In this case, our library doesn't have it.' You know, that was what the reference course was composed of. And one of these was known as IBZ, or alternatively known as Dietrich, from its compiler, International Bibliography of periodical literature. And I don't know why I remembered IBZ, I'd never seen it, I'd never needed to use it, but IBZ, also known as Dietrich, had somehow stuck in my mind from this lecture in Sheffield, in '64-'65, and so then it was a matter of tracking down somebody working in Germany, I thought to myself, IBZ, Dietrich, it's time to go and look at it. And so I found it, in the stacks, and looked in... the reason I looked in 1906 was because it wasn't in the online... there was no E. Goldberg in the online catalog for the University of California. But at that time, there were still some cards that had been keyed. And, they were accessible. And I looked there, because I couldn't find anything anywhere else. And there was a card for a German doctoral dissertation, for Leipzig of 1906, on the kinetics of photochemical reactions by an E. Goldberg. Now, when you look for them, E. Goldbergs are not that frequent. And here was one in the right country, Leipzig's not far from Dresden, they're both in Saxony. And, you know, what else? The explanation is that German doctoral students used to be mandated to have their dissertations printed, at their own expense. And copies were sent to the leading research libraries of the world. And all large research libraries have basements full of crates of often un-catalogued German doctoral dissertations. And, what's worth knowing, if you're a researcher, is the last page is the student's resume. I don't know when I knew that but I found it when I asked for the [North Region?] Library facility to send me this 1906 dissertation. And, it turned out that the author was called Emmanuel Goldberg, and the resume begins, 'I, Emmanuel Goldberg, of the confession of Moses, was born in Moscow the son of a medical doctor.' And then what he'd done up to 1906. He had decided as a kid that engineering was the thing. He wanted to be an engineering, and he was determined to go to the Imperial Institute of Technology in Moscow, and to that end he had to take the entrance exam, and he got top marks, except that another student got equal top marks, and there was a quota on Jews. Three percent, which meant one student. And both of the students getting top marks were Jews, and so they flipped a coin as to who should be admitted and he didn't get it. And he...so he consoled himself by signing up for chemistry at the University of Moscow. And he was bitter about that for the rest of his life, and that caused him to leave Russia to avoid anti-Semitism, and he went to Germany, which was not necessarily the best place to go to avoid anti-Semitism. He could've come to the United States and encountered anti-Semitism, but that would have been less virulent. Anyway, so then I looked at IBZ around 1930, and found another E. Goldberg writing about printing and photoengraving and [reprographics?]. So then I went back to 1906, 1907, 1908, and 1929 and 1928 and was able to build a bridge. Fortunately he was writing prolifically throughout that period and it became clear it was the same person. It also told me where to look for more. And, where to look for more was old German technical journals and old textbooks on photographic technology. So you never know what's going to be useful, whether it's where Carinthia is or IBZ.

RW – You fairly well documented this in the book...

MB -- And that's the origin and genesis of the biography of Goldberg,¹¹ which was a huge adventure. I got enormous pleasure out of that, and it drew on almost everything I'd learned. I

¹¹ Michael Buckland. *Emanuel Goldberg and his Knowledge Machine: Information, Invention, and Political Forces*. Westport, CT: Libraries Unlimited, 2006 (New Directions in Information Management).

had to learn a little more about chemistry, but as a teenager I'd been very interested in camera design, not taking photos or processing film, but actually the cameras. I could have told you the price of any second hand camera back then. And more or less I knew how they worked. And, since I'd fallen in love with an Austrian, I'd become more interested in the lands of the House of Hapsburg, and one of the reasons that I made progress with her was because I was the only person she ever met in England who'd heard of where she'd come from, which I'd encountered in my history classes. Who says history can't be useful? [laugh] 34:46 ...

RW – Okay, so, Berkeley. Finish up with Berkeley. What about the school, that you'd like to talk about?

MB – I gave up being Dean, in, I guess it was 1983. After having been Dean and Assistant Vice President, in parallel, for a year. If I'd known then what was going to happen, I would not have given up the Deanship. [laugh] The school... the Chancellor's Office, you understand the campus authority's the Chancellor. The Chancellor's Office failed to appoint a regular, full-time Dean for fourteen years. We had a series of acting Deans and then we had a sort of regular Dean half-time, and there was some uncertainty as to whether that was a permanent appointment or a temporary one. And then we were not allowed to fire any faculty because we hadn't got a regular Dean. The argument was that the new Dean, whoever it would be, she or he should take on the hiring of new faculty. And so we were withering on the vine. Then, the campus had a huge economic crunch. As I recall, they decided that they would eliminate eighteen percent of tenure, tenure-track positions. This was the worst crunch, worse than the Great Depression.

RW – What year was this?

MB – Oh, dear. It was about 1990, '91-'92. Now, what happened to the school after then is still a sensitive area, and some things I don't want to talk about, and lots of other things I don't know about. But, at Berkeley there is, at intervals, a graduate council review, the graduate division is the administrative body, and the graduate council is the academic senate committee. The academic senate committees are very powerful at Berkeley, more than anywhere else. Anyway, there's a review, by the graduate division and the graduate council of graduate programs, and officially I think it's meant to be every five years, but they don't come close to maintaining that schedule. These reviews can be extremely influential, for good or for bad. It was one of these reviews, nicknamed the Wheeler Report, that led to the recommendation that the school change its direction, that was 1973 or '74, that was my mandate when I came in; that was what I was asked to do. And there was one that reported in about 1991; as I recall it was nicknamed the Oliver One report, from its chair. And, like the Wheeler Report, it criticized the graduate... the current Chancellor's administration for neglecting the school. And it made an appalling rhetorical point, at the end. It said... what they wanted to say, what they wanted to do was get the Chancellor's Office's attention, that the Chancellor's office... they wanted to chastise the Chancellor's Office to get its act together, but it came out in a sentence that said something like, 'if you can't get your act together and find a Dean, you might as well give up.' We knew they were going to say something like this, and we begged them not to say it that way, but they did. And, this was interpreted as a recommendation... this was claimed to be a recommendation to close the school. But actually if you read the report, it was a very positive, encouraging report. But it had this unfortunate statement at the end. And, the Chancellor's office started talking about closing the school. Never really for attribution, it was sort of dark mutterings. And once the blood is in the water, the sharks come out. It's extremely difficult

to recover, any time something like that is said. Even in the best of times, the size of the Berkeley campus is capped. A program can only expand at the expense of another program. It's a zero-sum game. Most universities aren't this way, but Berkeley is in the best of times. So you can imagine how enthusiastically the sharks came out, in the middle of a huge financial crunch. Well, briefly, another committee was formed. This was called Oliver Two, as I recall. And it essentially said the same things. It said, the campus really needs a good presence in this area, the school has its problems; it needs funding and attention, so it should get on with it. But again, this was interpreted as a recommendation to close. It sounds odd put that way, but once people have an expectation, they can easily find it. And, there was a third committee. Now, the committee reports were actually positive and encouraging. These committee reports tended to be. But, they were always sort of interpreted and pursued to be recommendations for closure. In the speculation around this, it was speculated that the Chancellor's Office thought that a school that generated graduates for the public sector might be easier to dispose of than one that had alumni in the private sector. This was a gross..., if true, it was a gross miscalculation. Unprecedented support came out, skillfully orchestrated by the alumni association. It included recommendations from county boards of supervisors, and a leaked threat for an egregious departure from protocol that the California congressional delegation had an opinion on this and they did not approve. I don't know, but that was... The Chancellor's Office had to hire one of our students to cope with the faxes coming in. In parallel with this, and unrelated, suddenly the school started getting research grants, including ones that I got. And, the school responded a little slower than it should have. And we compiled a dossier of all of the positive claims you could make about the school. And one of them was a graph showing the increase in extramural funding which was just going up off the charts, as it happened, and then because we'd lost a lot of faculty and we got a lot of extramural grants coming in, we could show that we had almost the highest per capita grant income of most any department on campus. And a whole bunch of things a little ingenuity and good presentation should do. During this time, Nancy Van House was acting Dean. She was a relatively junior member of the faculty and they put her in a very difficult position but she handled it pretty well. In the end, the alumni were very angry about this, as they should be. There was a momentous meeting at the Chancellor's Office, and a lot of us went and stood outside, with slogans saying 'don't ignore the information age' and things like that. The outcome of that--this was getting newspaper coverage, and one of the local newspapers juxtaposed two articles. One was a visit by Vice President Gore and Bill Clinton to ostentatiously pull telephone wires in a local school to inaugurate the information age, and the other was an editorial comment that shutting down the one school on the Berkeley campus that embraced the information age seemed foolish. There was a momentous meeting, and the outcome of that was that a blue-ribbon committee would decide what should be done. The blue-ribbon committee was explicitly told not to disregard what existed, and to design what should be done for Berkeley to be the international leader in the information age. We knew that the tide had turned at that point. Almost immediately we began to know who was on the committee. At that time, there was a ... I'm having a senior moment on the name...they had the then-university's librarian, Peter Lyman, the then-university librarian of the University of Southern California, who very articulate advocate of the use of computers in libraries, and digital scholarship. This is at the campus. And he--I knew him and he was a friend liked to be taken to and from airports personally--so I offered to drive him to the airport when he left. And he confided in me that he'd been asked to serve on this blue-ribbon committee. And I knew immediately that we were saved. Because you don't put somebody like that on a blue-ribbon committee if you only want a burial party. Somebody knowledgeable, expert, articulate, and independent of the university. Then we learned Clifford Lynch was to be on it. It was actually a wonderful committee for

the purpose. With one exception there were really good people. And, so I believed, and I think my colleagues believed, that the tide had turned in our favor. But it was not the end of the story, for two reasons. One was that people in the school were represented on the committee. I was on it, Nancy VanHouse was on it, I think, and [?] Nolan, who was Associate Dean, and there was a very bright doctoral student, who also was doing graduate study in public policy. Now, if you've been thinking about what the perfect information-related school should be as long as I have, or the others have, you have a lot to say. But, the people from the school met, privately, and we decided that it would be best if we could bring ourselves to keep our mouths closed and let the rest of the committee come to the right conclusion. Because if we said what should be done, if they agreed, it would still look like we'd influenced the committee. But if the committee could come up to the right conclusions without us telling them what they were, then it would have greater legitimacy. And actually, that's what happened. It was called the Information Steering Committee. And that report was, and may still be, on the school's website. And, it was a good report. It wasn't written the way I would have written it; it was written in a way that was much more suitable for the campus political environment. And it can be read different ways, different interpretations. But for me, it was a resounding endorsement of all the things we'd been trying to do, but had not been allowed to do. And, I had a small role in the wording that referred to the existing school. There was a compromised wording, which said something about building on the foundations of... So in a sense it was a victory, but there was a heavy political price to be paid. And that is that chancellors are not eager to be proved wrong. And to put it crassly, the price that was paid was a political fiction that the old school had been abolished and a new one created. Now, if you look closely enough you find that the relevant documents are a little ambiguous on this. And not everybody would agree with me, but I'm confident that it was de facto total continuity, and also de jure continuity. The action I took that went to the [regents?] was a self-contradictory, confusing document of an extraordinarily mad kind. But among the factors that suggest that it was not a disestablishment but a reestablishment, were the fact that the school had a significant endowment, and to disestablish the school would call into question the status of the endowment. And legally, under the doctrine of [?], it was supposed to go back to the donors and ask them if it's okay to use the money for some other purpose. The administrators are not eager to do this. But if there was continuity they wouldn't need to do that. And the other is, that when the new school took effect, which was July 1, I guess 1994 or '95, nothing changed except we printed new business cards and changed the name of the school; the same people did the same thing. So when the new Dean eventually came, he walked into a fully functioning school. I did not apply to be in the [successor?] school, I didn't need to. It was automatic. The only thing that happened was that the personnel records were changed to note the change in the name of the school. This was a point we were rather sensitive about. Now, they did a search, they didn't do it very well, and they had what I considered a brazen action, they recruited for a founding dean, and they appointed somebody who believed it was a new school, and that he was in fact the founding dean, and that he would have a clean sheet and he had no obligation of any kind to the faculty in the old school. This raised policy questions that the academic senate took up, because it went to the heart of the nature of tenure. And there was a test case that became--eventually the Chancellor's Office negotiated an out-of-court settlement on--to avoid either the academic senate committee on privilege and tenure making a decision, or it proceeding as a lawsuit. So, the legal aspect was not resolved, but the academic senate made sure that university policy for dealing with these situations was rewritten much more clearly to protect faculty, and I had a hand in the wording of that. It was a nightmarish experience, but it got worse after the arrival of the new dean. It was a pleasure to turn my attention to Emmanuel Goldberg and other things. Eventually, Dean [?] went off on sabbatical and he

was replaced by a professor of electrical engineering, David [M?], who was a good and caring person. And then eventually, a year or two later, Dean [?] resigned as Dean and was replaced by the present Dean, [?], who has done a good job of rebuilding a sense of community, without which I felt strategic planning was pointless. People were not talking to each other... there was a period sometimes referred to in the building as the civil wars. It was an extraordinarily unpleasant, nightmarish period. And Dean [?] has done a great deal to heal the wounds and time has helped, and some departures have helped. But it's not gone. And now, with new faculty, I feel the school's in a much better position.

Not unconnected with the fact that one day in December of 1993, I woke up and calculated that I had worked full time for forty years and maybe that was enough. Two weeks later I was formally retired. The campus was extraordinarily enthusiastic about having my retirement as soon as possible. I didn't take it personally because it's an accounting issue. As long as I was a professor, I was a charge on the campus budget; when I was retired I was a charge on the region's pension system. If you take a systems view, it's a net gain for them, a net loss for me, but from a campus accounting view it's a positive. In order to do this, I agreed to volunteer my time to teach the courses which I'd been scheduled. So I phased out, gradually. But I also felt that with [?], she's now [Rosano?], the school was in good hands and was returning to a better situation, and I'd been something of a ring leader in the troubles and it was now a better time to go than it had been.

RW – Now, in the interim of all of this, the doctoral students kept coming. For a while...

MB – The villainous Chancellor's Office suspended admissions I think it was the spring of '93, just when we'd gone through the admissions cycle and were about to notify the students, it was really too late for them to go elsewhere. It was an extraordinarily tacky move. They were anticipating a decision that in fact didn't happen, namely the closure of the school. And it was too late, as far as the applicants were concerned, and it cheated the state out of another cycle of well-trained professionals. What nobody knew--I don't believe anybody knew--is that in the fine print of ALA accreditation, there's a clause which says if you suspend admissions you've lost your accreditation. Nobody had any idea of that. We didn't find that out until later. Eventually... so we discussed this once we were no longer accredited. So no students were admitted for three years. This was a wonderful time for the existing doctoral students, you know, they had all the attention they wanted from the faculty. By that time, all faculty were tenured. We were way below the normal complement. But we had lots of time. We filled the time partly by teaching courses for other departments, including the one I did on cultural heritage. Anyway, then we resumed admissions and the question of accreditation--the problem with the accreditation had been discovered--and it was discussed in the faculty very soberly, carefully, and the consensus was not everybody wanted accreditation back. Some felt that's what we were trying to get away from or they had a bad attitude. But the consensus was that for at least a minority of our students, it's advantageous to be able to say their degree's accredited. And for the others it didn't matter. The Dean, [?], wrote for accreditation, stating that it was only a name change and they'd like the accreditation reaffirmed, please. This was not the statement he typically made, but he did then, and got a rather irritating reply, saying, 'no way, you've lost your accreditation, go to the back of the queue, the first step is to get your chief administrative officer to write us a letter begging to start the process, and budget for a site visit and so on.' And, the word was put out that the Chancellor's Office wasn't into accreditation anymore; they didn't like it. I didn't believe that, I thought that was a bit of a cover up. So it didn't happen, there were a lot of other things to do, and it was not a priority and there wasn't unanimity on it. And, the students were getting very highly paid

jobs, Master's students. Way back then they were already averaging about \$70,000 a year beginning salary. So arguably the need wasn't great. But then a couple of things happened. One is that when the students interested in library work expressed interest in applying they had to be advised that they should in their own interest go to an accredited program. So, increasingly, the incoming students weren't interested in library work. And another thing that happened was that with the turnover of faculty, the composition of the faculty was progressively less good of a match for an accredited program. When I retired, most of the sum of the faculty's professional experience went with me in terms of years of service. And, faculty who had come up in the library field were not necessarily particularly interested in that; people's interests evolved. So now the school would not be in a strong position to get accreditation back in terms of the composition of the faculty. And, it was... the former resolution was agreed that it would be postponed for, I don't know, four years, five years. But when that time came, nobody revived it. This went down very badly with the alumni and with the library profession in California, and it was all widely misunderstood as a vicious attack on librarianship, and it was widely believed that accreditation was deliberately lost but it was much more complex than that.

RW – The rumor reaching here, anyway, was you all gave it up out of sheer disregard for training librarians.

MB – I know it was. And there were some unfortunate public relations from both the school and the Chancellor's Office, but it wasn't that way. Now, the... all through this, there was the following consideration. If I was right, that the information steering committee was actually, in fact, in substance, a ringing endorsement of what we tried to do, but the political spin was that the Chancellor, who'd tried to close the school, was breaking new ground by inventing a new field and establishing a new school, you couldn't say so. Because, if you... to say that what the information steering committee recommended was what we been trying to do, totally undermine the legitimacy of the Chancellor's move to make the school the top campus priority. As one of my colleagues vulgarly put it, you don't want to piss on a parade that's in your honor. We had to, you know, had to not say that, even if we believed it. Not everybody did. I did. But you just had to keep quiet. The other aspect is that I believe that if you're going to be concerned about information services that involve what people know, sooner or later you're going to head back onto the same track, because of the nature of what you're dealing with, which is part of what I was talking about last night [at the Deans/Directors lecture].

RW – Did the doctoral students' interest in libraries ever--during this time and before--was it high, and secondly, did it change?

MB – It fizzled out. The ones interested in library stuff remain so, but they've graduated and left. The last one really was [Alan Conrad?]. Then Ryan Shaw was interested in digital humanities and library stuff, but he didn't really come at it with an interest in library work.

RW – What about Ron Day?

MB – Ron Day was long ago; he was only a Master's student. He already had a PhD in critical theory of English literature, and some kind of philosophy. He was long gone.

RW – Ok, I thought he was a doctoral student there.

MB – And the faculty recruitment was heavily into social sciences. Anybody with an MLS... I guess the last person with an MLS or library background to be recruited was Ray Larson, who's been a full professor for some time now. And it proved very difficult for... Some, a few of our Master's students did get library jobs, but they ran into the illegal requirement that you have an MLS. It's illegal to advertise for an MLS only and not say 'or equivalent.'

RW – In California?

MB – Federally. Under federal law. If you require... if you can justify a job requirement, you have to say, 'or equivalent.' And people don't. They should. And, even if they do, they may not be willing to honor it in practice. A few went to work in library automation activities, sometimes without the title of librarian. A number of them went to work for the California Digital Library and did very well. But, student interest has moved much away from this, into social computing and the role of cell phones, and away from the organization of knowledge, more or less. We did an examination of the job titles of the graduates a couple of years after we resumed business, and the job titles they had were a wild diversity. But they really did have to do with the organization of knowledge. I mean, website designers and interfaces for search engines and so on. So we were... in a sense, we had rather gracelessly ended up on the trajectory that had been initiated by the Wheeler Report. But, the second half of that trajectory was a bit bumpy.

RW – Now are folks like [??] getting doctoral students in the economics of information?

MB – Yes, he's been office chief economist at Yahoo for a long time, but yes, they did. Yes.

RW – So you had a variety of folks in the doctoral program interested in...

MB – Lots of doctoral students and they're very bright. Some of them have a sort of library interest. Ryan Shaw became my research assistant and he played a very significant role in extramurally-funded research on accessing reference works and helping editors who are doing scholarly editions and so forth. I was very blessed with my doctoral students.

RW – I had some questions about LIS education and IS education in general, and you've touched on it, but to ask a general question, currently in your view, are we headed in a good direction, generally across the field?

MB – Generally across the field, I believe that we are, but I worry a great deal that the I-schools don't have a coherent account of what they're doing and why. And I think that's dangerous. They've been riding a crest of a fashion for information, and they've been doing it successfully, skillfully, with their acquisition of resources and their publicity, but I don't think that's enough. The tide will turn, and information will become less fashionable, something else will become fashionable, and then if you don't have a compelling rationale for why your school's important, then you're in a very vulnerable situation when the economic climate turns cold.

RW – So what's missing generally in the I-school movement and the I-school education movement?

MB – I think that's what's missing is a coherent account of the nature of the schools, of the nature of the field, and the rationale, the justification for their existence. Beyond a sort of hand-waving level. 'Look how many terabytes there are,' and other slogans.

RW – Are they any different from an LIS program?

MB – I think the library schools, when they were library schools, had a much clearer sense of their mission, because they could identify with libraries and people knew what libraries were, people could understand libraries were a socially useful thing, and that they need help and they need skill, and there's something identifiable and recognizable about a library and a library service, and librarians are something the outside world can relate to. Libraries are very popular institutions, in spite of all the talk about budget cuts. And library schools are very much better than schools of journalism. I wouldn't want to trade places with a school of journalism, I tell you. [laugh]

RW – Particularly when our newspaper here has gone from twenty-five pages in the front section down to four. And almost all of those stories come from...

MB – We had the then-Dean of the Graduate School of Journalism on campus come and talk to us when we were the information steering committee. And, the picture he painted of his field was appalling, it was scary. But that's a whole other topic.

RW – Yeah. Well, and then we're joined at the navel with one hair. [laugh] It's not a whole different topic.

MB – I know, I know. I mean, I believe the potential is there, and I have opinions and prejudices on what mass communications ought to become, and how it could become. But that's a little different from journalism. But I won't go into that territory here.

RW – And I have a daughter that does journalism, so it's not an un-academic subject. Anyway...

MB – There were people who wanted history of information science, but the prevailing opinion was that that was not a good thing to do because, A, it wasn't that scientific, and, B, we had people seriously into the history of publishing, history of the book, and we knew that we might be interested in archives, and information studies seemed a better...

RW – And you were doing records management stuff, also...

MB – Well, we did, but not at that time. I'm talking January '76, or February. As colleagues had pointed out, we should have put them in alphabetical order; it should have been 'School of Information and Library Studies,' which some other schools have done. And the reason for this is that School of Library and Information Studies is simply too long for anybody to remember. And so, you know, I'd encounter people on campus and they'd say, 'hi Mike, what are you doing, you're in the school of library...' and they'd be lost. It sounded more retro than what we had had. If we had changed it to 'Information and Library Studies' they might have said, 'oh

you're in the school of information...' And to a significant extent, what we had done had not been noticed on campus.

MB – Okay, what's next?

RW – Alright, let's talk about ASIS&T. 1998, you were elected president of ASIS&T; I remember asking you, prior to your taking office, what you were going to do, and you said, 'I don't know, somebody will tell me what to do.' Well, I assume somebody came along, and what did you do? Just kind of run through the ASIS&T...

MB – The first half of that statement was true. [laugh] I didn't know what I was going to do. When I was at Lancaster, I spent a lot of my time reading the literature; I used to go through, page by page, the NSM? publication on non-conventional information retrieval.

RW – I've got a whole set of them up there.

MB – I had the luxury of being able to do that. I was much more current with the literature then than ever since. So, I knew quite a bit about it. I knew the names of the luminaries associated with ASIS&T. Never seen or met any of them. We invited Ferd Leimkuhler to Lancaster but he wasn't really much involved with ASIS&T. In 1969, my brother invited my wife and I to visit him in Vancouver, and we took a detour via San Francisco and Berkeley. We stayed with the Leimkuhlers a couple of nights and I was invited to give a talk at the Library School. I don't remember how it all worked out, but also, still jetlagged, was told that I was the speaker of the ASIS&T local chapter. I don't remember where it was, I think it was in Oakland, and I sat next to a guy called Charlie Bourne and there was another guy called Hal Walker (?) there, and I gave a talk, and there was a grand piano, and that's about all I remember of it. That was my first actual encounter with ASIS&T.

When I came, I landed in the United States in March of 1972. And so naturally I went to the ASIS&T meeting in the Fall of '72, and that was the first time I attended; it was a natural choice for me, given my interests, to go to ASIS&T, and I've been attending ever since. I have not attended all years, but I've attended a lot of annual meetings.

RW – And that's immediately following the almost-merger with SLA.

MB – Well, I didn't know about that.

RW – You didn't. I guess by that time the fallout had gone.

MB – The comparable body in the UK was ASLIB, and they had a personal membership but I didn't do that. I had no money then so I didn't do that. I was a... In the British system if you wanted to... the trade ticket was to stay a chartered librarian. But to be a chartered librarian, you had to be a member of the British Library Association and pay membership. You had to have an acceptable qualification. The British Library Association had administered qualifying courses and only a minority went to higher education, library school, then. You needed an acceptable qualification, and you needed to have done an apprenticeship of, I don't know, eighteen months or so in a real library, and then you paid your fees and you got a certificate saying that you were a certified librarian, and if you lapsed your membership

you were supposed to give the certificate back and stop making that claim. So I joined the library association; what else? And I became a chartered librarian because the Sheffield school was in effect accredited. Not formally, but in effect. The only other option in the UK was the Institute for Information Scientists, and these people were seriously confused about the difference between the science of information and information science.

MB – Don't tell me my priceless words are lost.

[A small part of the recording was lost at this point.]

RW – So I missed it. Your kids live nearby, now?

MB – My son lives two miles away, so when we went to South Africa for a month, he picked that time to have his bathroom remodeled, and he moved into our house for the month. And our daughter lives five miles away, just over the border into Oakland, Claremont Avenue. A nice 1913 house, on a large lot, just below where Claremont College... It's a nice neighborhood. It's North Oakland, almost Berkeley. It's about a two-mile walk to campus. And so, she's married, love in the cubicles of the Office of the President, where she was working. He works for the Internet Archive now. And they have this eight-year-old, mercurial temperament, very strong, very stocky. There's a certain magic about grand... the relationship between grandparent and grandchild which is different than from the parent. It really is. Have you got grandchildren?

RW – Three.

MB – It's different and it's better.

MB: – I can say I'm very fond of my grandchildren.

RW – You can send them home.

MB – But I think it's more than that. It's... when you reach the age of grandparenthood, you view life a little differently, and you've a little more time. You're not a harassed thirty-something.

RW – Yes. And there's a little escape there.

MB – And I think you have more appreciation of the magic of life. Babies are magic.

RW – And you can take off some of that feeling of responsibility where you've got to train them up right. That's the parents' job. Though I confess with my first granddaughter whose terribly picky about what she eats, she just frustrates me to death, but that's the main problem with her.

MB:– What won't she eat?

RW – Practically nothing, except sweets and starches. But anyway... Off the grandkids.

RW: -We can't get the other tape recorder working; it's full so we will go on with this tape. And so we were at your beginnings in ASIS&T, 1972, you said.

MB – The first ASIS&T conference I attended was 1972, and I've attended most since then. I have tended to avoid volunteering for activities and professional associations. I've been busy. I spent a lot of my adult life tired. Working hard and tired.

RW – Writing grant proposals.

MB – And writing grant proposals. Writing grant proposals all along, actually. I've been involved with extra-mural grants since 1967 pretty much non-stop. So I've tended not to volunteer. But I get invited to do things sometimes, and I've done a little committee work with the California Library Association. Almost none with ALA, although I'm a life member. I bought a life member when it was an affordable investment. With ASIS&T, I have been much more involved. I've done a lot of refereeing of manuscripts for JASIS&T over the years. I've written a little bit, and I've had a number of articles published of course, and I've written a little in the bulletin, not much. But mostly, apart from that, it has been on conference technical program committees. I was largely responsible for planning a mid-year meeting that was held in San Mateo, or somewhere south of San Francisco. It wasn't a financial success, but it was a good meeting. Aside from the involvement in the SIG, the History and Foundations of Information Science, that's a whole topic in its own right, but apart from that, I've not volunteered, and have occasionally been co-opted. I got a fax asking me to stand for president. I had not been on the Board of Directors, and I assumed then and now that they'd had other people lined up who'd turn them down, but I always... ASIS&T was always my primary association. It was the one I felt that matched my interests best ever since I got to the States, in terms of what I do and what I'm interested in. So, I agreed to run, and got elected.

MB: -Now, ASIS&T was at a difficult juncture. Membership had been slowly declining for a long time, and the budget situation had been gradually deteriorating for a long time. These were long-term issues. The drop in membership as far as we could tell, was generally true of professional associations. There's a lot of reasons why professional association memberships were declining generally. Employers were less willing to subsidize it, increasingly you had two-income-earning couples, they're busy, increasingly there were pressures in the workplace to catch up with the latest software of the minute rather than broader, deeper issues, you had a rise of specialty associations in niches, and you've got the imperialism of the Association for Computing Machinery (ACM). A lot of problems. And I followed Trudi Hahn, I believe, I'm getting confused. Clifford Lynch was either immediately or immediately but one before me.

[Order of ASIST Presidents during this time are: Clifford Lynch (1996); Deborah Shaw (1997); Michael Buckland 1998); Candy Schwartz (1999). Trudi Bellardo Hahn was President in 2003.]

So as vice-president/president-elect, I was on the Board of Directors. And I was impressed by the way that Clifford had initiated a good deal of house-cleaning, sort of going back to first principles to clean out the attic. There were lots of relationships with other associations that nobody had any idea why, or what they were worth. So he did a big spring cleaning and I... I'm getting a little confused on who my predecessors were, but both of them were engaged in this kind of reinforcement. Anyway, I thoroughly subscribed to this, and I pushed on it very hard. And so, when I came to be President, I made a change in the way that the quarterly Board of Directors meetings were done. And I said that we really need to

do some deep thinking about the purpose of this organization, and what its mission is. We can't afford to spend all our time on the administration of the day. So what we will do is, we will divide the agenda... We did a couple of things. We divided the agenda into the administrative issues that Dick Hill needed us to address, and then, on the second day, we would not address any of those issues. As soon as we could dispose of those, then we'd go into a quite different agenda, talking and discussing what kind of association it should be. The members of the Board of Directors liked this. And that provided a motivation to get the administrative stuff out of the way quickly, because when that was done, then we could move on. Otherwise the agenda tends to expand into all the time available.

RW – Did you start this your President-elect year, or your President year?

MB – It must've been the President year, because I wouldn't have been in charge of the agenda before then. But it was a reinforcement and a pushing on an existing trend. And I felt strongly that... I was under some pressure to develop strategic plans. And budget projections and business models. But, given my views on planning, I didn't want to do that. Because I felt that doing that would distract attention away from the much more important issue of *planning*. You do a plan, a plan if it's not just a derivative from planning, distracts you from *doing* planning. The consistent anticipatory decision-making. And I felt very strongly we had to go back to first principles and start from there. And I refused point blank to initiate a business plan, or a strategic plan, or anything like that, because I felt that that would interfere with the thinking and the planning that needed to be done. And the Board of Directors bought that, and that's what we did. And we got through the administrative agenda at an amazing speed. The other thing I introduced, which to my surprise they were unfamiliar with, but I'd encountered this in California, and that's the distinction between a consent agenda and an action agenda. And this model, which is used in local government in California, you divide the agenda into two categories. A consent agenda and an action agenda. The consent agenda includes everything which only requires formal ratification. No discussion. It's meant to be things that don't need discussion, they just have to be approved. And so you just move the motion that entire consent agenda be adopted. That's it, folks. That's half the agenda done. The protection is that anybody can ask for something to be removed from the consent agenda, and moved to the active agenda if they want to discuss it. But that's an opportunity cost. The trouble is if you don't do this, then people feel impelled to discuss everything whether it's needed or not. So we did that. I was surprised that this was new for people. It saves an enormous amount of time. You have to be willing to move things off the consent agenda but it just saves a lot of time. And we had excellent, thorough discussions and we formed little informal working groups in between meetings. The one thing we didn't do was come up with anything that was visible to the membership. And at one ASIS&T meeting I got a snippy comment that the Board of Directors doesn't seem to be doing anything in these parlous times. It would be too strong to say I lost my temper, but I was annoyed, and made a strongly worded statement they didn't know what was going on and the Board of Directors doing exactly what's needed. And there wasn't much to show for it at the end, but I believed then and I believe now that this kind of... The issue was, I felt, that nothing of significance would happen, unless the Board of Directors had really thought through the issues and had internalized and accepted, cordially, whatever changes needed to be done. Unless that happened, nothing much was going to happen that was significant. And developing and adopting a business plan

was superficial in comparison. So that's what we did. The benefits of that would not show until later. I haven't followed really, very much what's happened. The economic situation's gotten better. How much of this is attributable to my contribution, I have no idea. You'd have to ask Dick Hill or others. But I felt strongly that that was exactly what the organization needed at that time, and would've resisted spending their time on anything else. The problems with declining membership for which there were endless possible reasons but we didn't know. The other was that the mid-year meeting had become unaffordable. They were good but they were unaffordable, and that had to change. And that did change around that time or soon after. It was not a good time for me; I was very busy with other things and it was an exhausting year as most years were. But, and I probably shouldn't have taken it on for those reasons, but on the whole I felt good about it. I ran tight meetings. There's an art to being a committee chair. There really is. And if it's done well you don't notice it. It's like a lot of things in life and in sport, if it's done well you don't notice. Now the SIG issue is a whole other matter. You know about that. I can put it on record if you want.

RW – I think we've documented it someplace, haven't we? Maybe not. Yeah, tell the first part of the story in terms of what you... you had been working, you had just become chair of SIG FIS, right?

MB – Well, it goes before that. I took a dim view of the idea that theory in this field meant it had to be Shannon Weaver or something that looked like physics. But that had been a very influential view encouraged by Larry (?) and other talented people. Though I didn't buy it at all. And I think, truth to tell, the SIG FIS had sort of declined.

RW – Fizzed out, yes.

MB – It had fizzled.

RW – Well the guy at Lehigh was the year before you and I became... he had done nothing that year.

MB – Well, it was worse than that, I think. I mean, yes. I don't remember the details. But it was not an impressive SIG at that point, and one of the problems that I sensed, that happens with SIGs, is that the SIG committee says, 'oh golly gosh, we need a program' and they pick a theme, or they pick the official supposed theme of a conference and they say 'well can you work up something on this, and can you work up something on that' and so on. Now that can work, in most areas for which there are SIGs. But it cannot work in the history and theory because, if the quality is to be good, you have to have people who've already done the work. You need people who've already done the work, who are willing to present it, in an intelligible way.

MB – Well, I commented that ASIS&T... the complexion of ASIS has changed. It's now dominated by academics, graduate students. But it wasn't before. The leaders were from think tanks, systems development corporation, people like Cuadra and Borko. Swanson came from a research unit before he went to Chicago. It was... a lot of it was practitioners of various kinds, from the information industry. Anyway...

RW – These were not research reports in other words...

MB – Right. Well, a lot of it was sort of research and development.

MB – I hadn't found what passed for foundations of information science to be very interesting, shall we say, and my experience with Briet and then Goldberg gave me this enthusiasm for rediscovering lost worlds. And, I decided that the SIG FIS [Foundations of Information Science] would be a good vehicle for inducing change. And I volunteered, I don't really remember the details, but as I recall it, I volunteered to chair SIG FIS so I could put it to good use. And, the time I remember was... And I also took it for granted, actually, that history and theory go together, quite naturally. And, so, that a part of whatever ASIS did ought to include the history of ideas within ASIS, relating to information science. And then I got interested in the history of documentation. And so my first really important step was-- the annual meeting in Washington, and it was I think '91--when I co-opted Irene Farkas-Kahn and we put on the provocatively-titled session 'information science before 1945,' a very carefully chosen title. And, Irene gave a talk about Watson Davis and the origins of ADI/ASIS and I gave a talk introducing Goldberg. Goldberg's son, Herbert, came and talked about 'what my dad did.' And there was hardly a dry eye in the house and the room was packed. It was really quite something. And, that... We then took it from there. The people involved... Boyd was somehow involved, Irene was actively involved in the earliest days, Trudy Bellardo Hahn got involved, and you got involved, I don't remember the exact years.

RW – About the second year.

MB – Yes. And I do remember your initiative to have a history SIG and you got the requisite number of signatures, which was fifty, I think you did... You got a lot of people who were sort of interested in history but they weren't about to do any.

RW – I don't remember how many it was.

MB – Well, it was at or close to the requisite number. And I felt, and you agreed, that we'd have a more viable SIG if we joined forces and did both history and theory. And so the SIG FIS was converted into SIG History and Foundations. And, I was quite active for a few years, in orchestrating the program, which I did with a good deal of care. And, the rules were that I wanted people who had already done the work and had something to say, and that we would have at least one session on theory and at least one session on history, and as far as possible, we'd have papers that combined the two. And, I laid it on the line to the speakers that, if you really want to talk about your research you do it in the bar, because, for the public session, you've got to make it interesting to the membership, because we've got to attract folks. There were two agendas. One was educating the membership and inspiring them, so you've got to be interesting. And the other was communing with other researchers, which may or may not be interesting to other people. And this was show biz. And that's the way I would put it. You've got to make it interesting and intelligible because if you care about the history and foundations of information science, then you've got to help the SIG flourish. And this SIG can only flourish if it can compete with sessions on other things. And, so these were the criteria. We managed to get some people from Europe involved, and then we got into other things: there was your bibliography, there was your database of pioneers, then later there was the Pittsburg conference, and then the Philadelphia conference, and then I felt that the world needed a chapter in the Annual Review on History. There'd been a sort of half a chapter way back when. So, with help from a doctoral student I wrote the first full chapter. And that was quite a lot of work, but I had been doing quite a bit of work on history and had a diligent doctoral student to help me. And, a little piece of that--in the interest of that--was that what I included and excluded was

one way of trying to define the field. And I think that the structure and the classification that I adopted was taken from information science abstracts classification, or at least that's... the old documentation abstracts... that was one place I looked to find a sort of categorization, although I'm sure I mutilated it a lot. Now, I saw all of this... personally, I saw all of this as a campaign. It was an initiative to influence the field, in terms of making it a more mature field, by getting people to recognize there were ideas and there was a history, and historians ought to know that there's a history of ideas, and they shouldn't neglect that, which had happened. And, that people with ideas should know that there's probably history to any ideas they touch. So to me, it was a case study, it could be written up as a case study in trying to influence a field. And the ASIS&T SIG---ASIS&T and its SIG seemed a really good vehicle for that.

RW – In another ten years we might finally wipe out Bush as the origin of information science. [laugh]

MB – Some other myth will replace him. So... and then the question would come up intermittently about a textbook on the history. My view was that that was premature, that nobody could write a satisfactory history, and you didn't really need to because in the short term we could put together a reader. The other two things were the special issues of JASIS&T-- which ended up two physical issues. And Boyd had already done a special issue of *Information Processing and Management*, which was actually one of the highlights of that journal's existence.

RW – Oh really? In terms of interest?

MB – It was. I was on the editorial board for quite a while, like thirty years. And it really was very popular. And so, what we did was--we got permission to reprint all the articles in those two special issues. It had to be photolithographic reprint, so we offered to each author... they could have up to one page of anything they wanted to add or correct. Mostly they didn't, but some did. But that, from a production point of view was really inexpensive. Then a doctoral student and I, [name missing?], did an update on the ARIST chapter, and we got you to contribute good stuff, and that made the package as an interim monument until such time as there was a textbook. So, you put all that together and that adds up to a campaign.

RW – It's made a substantial literature. All those things put together, as well as keeping up with the other stuff.

MB – It did, it did. There was one year when the program committee rejected our session, and with the help of Dick Hill we did it anyway. That was when Miles Davis came.

RW – Yeah, that's right. The Sunday afternoon program.

MB – We did it on a Sunday afternoon in spite of it not being on the program. Unfortunately the attendance was not what one might desire, but it was good stuff. So then eventually I got distracted into other things and we did less and less with the SIG, and other people took over but it finally needed rejuvenation so a series of old-timers came back to rejuvenate it. Professor Bob Williams and myself, and Trudi Hahn and Julian Warner.

RW – We're about through with my list of things, but I do want to talk about your grant-writing experience. Jennifer and I have bemoaned the fact that we have so little support around here, in terms of getting grants out the door, and then... I asked you yesterday, what kind of help do you have at

Berkeley, and you said, 'none.' So, I was shocked at that answer. How are you doing it? I looked at your bibliography, which--I haven't shown it to Jennifer—but you sent me this bibliography of grants won and lost, which goes on and on and on. How have you managed to do that? Say, between two and four a.m.?

MB – Well, I don't know whether we touched on this yesterday, but the English educational system is a little different. I've been writing essays since age eleven or ten, every week. And, most Americans don't do that, and I think on the whole, it shows. I like writing, and I think writing is much misunderstood. I had a friend with three degrees in English, and he gave me drafts to read. They were not ready for prime time, would be a very polite way of saying it, and I said to him one day, the whole purpose of writing is that somebody will understand it. It's like a marionette theater. And this was an epiphany for him. [laugh] Now I blame an American approach to teaching writing that is oriented towards self-expression. This is absolutely wrong for technical writing. It's not about self-expression at all, it's about manipulating you into reading what I want you to read in it. Now, that's one piece in it, and I've always thought that technical reports are really important. When I was at the Office of the President, it was very clear that MELVYL, the online catalog, had some problems, and that these could be solved by certain developments, but I could not do much without the approval of the nine university librarians. And they were not interested in doing all the things that I wanted done. The most obvious thing is, that in those days, when Boolean sets were retrieved, you either got too much, or none, most of the time. And, really, what you want, most of the time--not always, but most of the time--what you want is a small handful of the least unsatisfactory material. So that's the design requirement. I mean, you may have other options, but that should be the default requirement, regardless of what your query is, regardless of what's in the database, you want a handful of the least unsatisfactory stuff, so that's what we need to design for. Now, that was one of the things that I could not rouse support, although the talent was there, in the division of library automation. So when I evacuated the role at the Office of the President, there was nothing stopping me. I didn't need anybody's permission. The catch was, I didn't have the resources to do it. I couldn't do it myself, I had to hire other people who could, and that meant a grant. We used to get, I don't know, three or four thousand dollars routinely, for research assistants each year. Each faculty member.

RW – In the school?

MB – In the school. That's gone, but we used to. And that was not enough. So, I wrote a grant proposal. This was in the days before IMLS. Not everybody knows that there was a program essentially identical to the national leadership grants at the US Department of Education. They had a library unit, and they issued grants that were almost identical. So I went to them, and I had a project entitled something like 'developing an adaptive library catalog,' and 'prototype for an adaptive library catalog.' And, the original idea was that if you're always getting too much or too little, you should be able to issue a strategic command saying, 'more' or 'fewer.' Now you can do that in a Boolean system, because you can add or relax Boolean qualifiers. In fact, we came to realize that people didn't want more. They would want more of this kind. It's a sideways movement that people want. Not just more. And, so I wrote a proposal to the US Department of Education and got a grant in 1990, ninety-two thousand dollars. And I don't remember the exact details but I probably wouldn't have done this unless Ray Larson would have been willing to help me do it because this is his background. And we got the money and stretched it out, and

we did it. There was some very interesting stuff done, by some graduate students. After that... That was the first step of a chain of projects that's still going.

RW – None of the other online catalog systems were using a more-like-this approach? This was before Amazon was using it, I assume.

MB – Yes. The nearest thing was some clever work under the direction of Steve Robertson of the City University of London called [Okapi?]. That was the nearest. That was clever stuff. And then, we stretched that out. I was asked to be part of a mega-million dollar project funded by [DECK?]. They needed a token information retrieval person and so the guy writing the proposal came to see me and said, 'will you join in,' and I said 'I will join in, but the person you need is Ray Larson. And so I played a sort of cameo role, I did very little. But, I was able to... I got equipment out of that. For a brief moment I had the most powerful computer in the building on my desk. I didn't know what to do with it, but... And that continued on from 1991 through '94, and then I got another grant, from the US Department of Education. It was HEA, Higher Education Act title 2A. As I recall, there was title 2B for fellowships and title 2A for... and I think they changed the numbers, but anyway. And this was called Online Access in Multiple Database Environments. So you could search here and search there and join the sets. So that kept me going through '96, and then, the phrase 'information management' got currency. It was used a little bit, you know, for spin doctors... and DARPA latched onto it. And they announced a big call for proposals in a program on information management. And, I was teased at the school by people saying, 'well you're into...' I had taught a course on information management or something like that, so we were using the term, and so we joked that we should help out DARPA, and the students said, 'well why don't you?' So I worked up a pre-proposal. It was... part of the background to this was Ray Larson's career-length dedication to developing the [Cheshire?] system. And one piece of this was developing an interface that used probabilistic means. You put in whatever words you want, and you get a ranked list of the Library of Congress classification numbers, I think it was, that most closely coincided with what you seemed to be asking for. It's now called a search-term recommender system. And I don't really remember whether it was... I think it was classification numbers originally, but later it was Library of Congress subject headings. I mean there was a whole lot more to Cheshire than this, and I rudely said to him, 'look, you saw off this bit, and we could really do something.' And so we wrote up this pre-proposal to DARPA, and said, 'there's a vocabulary problem here, because all databases, all good... all trustworthy databases have some sort of indexing, but they... all this indexing is more or less arcane and specialized and stylized and obsolescent, and you can't use it effectively or economically unless you're familiar with it, and if you're not familiar with it, you're not going to do that.' So, we wrote it up, and the title of the proposal was 'Search Support for Unfamiliar Metadata Vocabularies.' It was search-term recommender systems. To my surprise I made the first cut in the proposal level. But I knew I needed help on this, because this would be a million dollar grant. So I asked Ray Larson to be formally the Co-PI, and we had... there was a guy called Fred Guy, Frederick Guy. He had done his doctorate in the school, on probabilistic methods in information retrieval. And... but his daytime job was managing a social science data archive. And, so I asked him to join me, too. So then we had a whole series of grants, which was PI Buckland and co-PIs Larson and Guy. And he joined in and we wrote this up. It was probabilistic techniques. It was exactly Ray Larson's Cheshire technique, applied to sundry databases. And, we came across the most hilarious examples in federal databases. In the federal... Fred would find these, in the federal import/export database... suppose you were in Detroit and you were worried about the automobile market, and you decided to look at the federal import/export statistics for automobiles. So you did a

search on automobiles. The answer was no such product. So you think there's a vocabulary problem so you put in 'cars' and the screen would fill up with all kinds of statistics about railroad and tramway rolling stock because, for automobiles you had to do [pass, mot, veh, spk, ign, eng?], an abbreviation for passenger motor vehicle spark ignition engine. That's fine for humans; it doesn't work very well with computers. So, what you need is a translation. If you want automobiles, you convert it into this. That was one of the many hilarious examples we used in our proposals. And that was nearly a million dollars, and then there was a new program officer, that was Ron [?], now at Pittsburg. He wanted to go multilingual. And, he had to persuade his superiors. And all of us in the grant program wanted to see [?] going multilingual. Fred created a wonderful graphic for him. It showed, overlaid, a map of the world, with three colors, and one color was for the areas for which there was workable commercial translation software. Then there was an area where there was experimental language translation software. And then there was the rest of the world where there wasn't any. Then he superimposed on this little icons for exploding bombs for every place where a US embassy or other had been blown up, plotted on the map. And it was all in the areas for which there was no machine translation. Anyway, we pulled out all our multilingual, multi-polysyllabic vocabulary and put in a proposal which was entitled... I spent a lot of time on titles, 'Translingual Information Management Using Domain Ontologies.' And that was approved for 1.4 million, 1.3 million, and I discovered the difference between approved and allocated budgets. [laugh] We ended up with \$400,000 of that money, because they lost interest in obscure languages.

RW – Oh, yeah?

RW – Well, I hate to interrupt your going through your grant proposal but we probably should quit. Well, I hope somehow or other I can put all this together, in the order in which you did it... we'll see, given differing recording instruments. But I think we covered most of my questions.

MB – But I would've continued after the DARPA phased us out.

RW – Well, go ahead, we probably have time, it's 3:43.

MB – After the DARPA grants... they ended up doing Chinese, this was their thing about, you know, low-density languages. We showed how you could make an English-Pashto dictionary in thirty minutes without knowing Pashto, and other clever stuff. But I digress. So, then, I had come to realize that geographic researching was problematic. So we wrote a proposal to IMLS called 'Going Places in the Catalog.' And this had to do with the duality between place name and cross referencing. It was a nice project, and it tied in with my involvement with Electronic Cultural Atlas Initiative. And then having... that was because..., well we did that, and another one was to say---actually earlier than that, was to say, 'well, gee, if text is digital, and numeric data series--socioeconomic data series is digital--then we ought to be able to search across them, right?' Fred had the expertise, and the answer's no, it's extremely difficult for lots of reasons that are basically cultural. That's a whole different world, and they have whole different assumptions about interfaces and terminology, and what epitomized it was the problems of dealing with place. Because searching bibliographies and catalogs, you rarely use place, and if you do, you mention a place name. You cannot search socioeconomic databases without specifying place. And you have to do it in their terminology, which means census tract, or jurisdiction, and people do not say, 'I found this cute little Italian restaurant in census tract so-and-so;' they don't do that. And place... jurisdictions, boundaries and names are widely unstable over time, and multiple names... Every self-

respecting place in Europe has two or three names, simultaneously. The French can't even spell London right. And it's a really interesting problem. And the only answer is that the geographical subject headings need to be place-connected with a gazetteer which can be connected with a map, because a gazetteer provides the latitude and longitude. So, that was a nice project and we did it... That was... So the project... So, the answer was that you could get very startling results if you tried to compare the text with the facts. Fred--I guess he read this stuff before breakfast--but he found a statistic that there'd been an explosion in imports of shrimps from Vietnam to Los Angeles, so what's going on here? So, you take words from the header and the labels and the description under the [table?] and you take shrimps and Vietnam and import and stuff, you take those and then you throw that against an index to newspapers or something. And he found an article, written earlier than the statistic, saying, 'it's going to be a bonanza for California when political relationships with Vietnam get normalized.' And, everybody knows that employment in the lumber industry in northern California is in steep decline. But if you look at Humboldt County employment statistics, you find it's going up. So, if you do research on the literature, you find that there's a big growth in wooden houses built near National Parks in that area. So, the received opinion was wrong, and that was the explanation. That was what the... It was cross-genre searching, between text and data, numeric data. It turned out to be really hard. And the one thing we didn't even think about was the problem of place. So we went back and said, 'whoops, we didn't understand place. Please can we have a grant for place.' And then we had 'Going Places in the Catalog.' And typically I'd spin these out, to three years with no cost extensions. And, the other thing is that we realized that the same applied... There's a problem related to time, very similar to place. Because if you listen to how people talk, people don't use calendar dates much. They say, 'when I was in Florida, I had squirrels,' or, you know, 'when I lived in Berkeley,' or, 'after I sold my house in Kensington.' That's how people talk. They use historical events as chronological markers, and it's highly cultural and it's highly situational because you've got to know the person and the situation to know what it means. After I graduated, before I was married, this is the sort of stuff. And, we'd already got a little leverage on this, because a clever doctoral student, Vivien [Petris?], who's now in the faculty in the Berlin Library School at Humboldt University, I got her to make a named historical event directory, modeled on a place name gazetteer. So, you would have... If you've got a pamphlet on the Civil War, here it means it's a nineteenth century pamphlet, you take it to London, England and it's a seventeenth century pamphlet. You take it to Spain and it's a twentieth century pamphlet because it has different connotations, different context. So, she made this cute little directory by strip mining chronological sub-divisions from the Library of Congress system, which normally have the name and the place and the time, the dates, and maybe a call number or something. And so having the name of the event, Weimar Republic, has a very specific meaning. It was the period after the first World War and before the Nazis took over Germany. So you have the name of the period, and then you have the chronological dates, but you have to also say where. If somebody says 'when was the stone age,' the only answer is 'what part of the world are you talking about?' And actually this is also true of place names. Because, it's not only where, [Edo?] was, Tokyo, but there was a specific time when it was called [Edo?]. So, it's true for place names that you also have to say when. And it's true for historical periods you need to say where. So, we went back to the trough again for time, and to throw in a little extra oomph, we said we'd do 'who' as well. So we started with 'what,' the searching unfamiliar metadata vocabularies, and then we went to 'where,' and then we offered them 'when' and 'who' as a package, this was called search supporting the learner – what, where, when and who. And then we did that without really having our act together on the 'who,' and we sort of had our act together by the time we'd run out of money. And so we went back with a proposal called

‘Bringing [Lives?] to Light.’ And this looked at the structure of who’s who entries. Which is incredibly structured. And what you... what a who’s who entry means to you depends absolutely on how much you know about those words. You see, okay, so in my case Goldberg got his PhD from Leipzig in 1906. Well, if you don’t know where Leipzig was, and you don’t know what a PhD in chemistry would’ve been then, and you don’t know what student life in Germany in 1906 was like, it doesn’t mean a whole lot. The more you know about... These words are really concentrated in their denotation. And the more you know about it, the more it’s meaningful. So that was the biography project, which we finished for reason... For disreputable reasons that was done with Ray as the PI instead of me, because I wanted to go for another IMLS grant. But I wrote the proposal. And then... I’ve written articles for other people, and I’ve written grant proposals for other people. Then, what that meant, was, that if you’re reading anything on a screen and you see an unfamiliar word, what you need to be able to do is to click on it and get a trustworthy explanation. Would or would not that be cool. Now, this goes back to the notion that learning depends on what you already know, it’s a matter of building or correcting what you’ve already heard or already know, and therefore, if you want to learn, the best place to read would be sitting in a library reference room, where the collection has been optimized for you and for what you are reading. In terms of choice of reference works and where they’re physically arranged. And, if you decide to read something else, you need a different arrangement. And if you’re done and she comes, you need another different arrangement again. This is a little difficult to do in a library reference collection, and so I became interested in how reference service should be done, and not only that, how would you do it from anybody’s laptop. And this was greatly influenced, like a lot of what I’ve done in recent years, by my experiences with Goldberg. Because I spent so many hours in so many reference libraries looking vainly for stuff I couldn’t find. And I had this fantasy, that wouldn’t it be nice when I walked into the huge reference and bibliography room--which you’ll remember was at Berkeley--and you could mumble or think your topic and little green lights would come up on the shelves under the books that mentioned it. [laugh] Now, would that be good or not? So, if it would, that’s what we’d need to find, we need to do. And so, the National Endowment for the Humanities and IMLS ganged up on a joint program called Advancing Knowledge. It was administered by NEH, but I believe it was mostly IMLS money. And we put in a proposal, basically to reinvent reference service and to do just this. And, we built, or Ryan Shaw built, a series of prototypes that progressively did this. The latest one is an extension of Firefox, because you want to embed it in your normal working environment. And, in principle, for any text you’re reading, if you see a word, you click on it, if you right-click a word, a menu comes down and the bottom one will be a customized list of the most trustworthy resources, customized for you. You click on it and the list of resources appears in a column on the left of the screen, and while you gaze at it in awe, each of these things changes color, because the interface is doing a background search. It goes red if that word is not mentioned in the resource, it goes green if it is. You click on a green one, it takes care of the search for you and presents you with a window with the entry inside that resource pertaining to that word. Then, if you like it, (we didn’t get around to finishing it), but you then click a button, and it pastes the fact that there is something there on what the search is into the XML behind the text so it’s ready for the next reading or the next reader. And then when that’s done, the next step is, you take this text with all the XML marked up, you throw away all the text, you keep all these links, you reverse them, and then you paste them into the reference works. So that the next person to look for [?] Island in the gazetteer of islands will know that it’s mentioned in that article. Part of the interest in this work is that when you look at the literature on reference research, it’s nowhere because, especially in the United States, they

redefined reference service in an appalling way. They restricted it to only where the librarian intercedes and finds it for you.

RW – And mostly to fact-finding.

MB – Yes. And most people would prefer to find things for themselves. So whatever happened to the provision of a reference collection? I was approached by The Library and Information Science Research journal, which had recently celebrated its thirtieth anniversary, and they marked it by scouring the geriatric wards for people who'd been on the board of directors initially, when it had been founded, and it reminded me that I had been, which I'd forgotten. And said they'd like an article and I said, 'I'm too busy,' and they said, 'I'll give you an honorarium,' and I said, 'when do you want the manuscript?' [laugh] But I agreed to do it, provided I could write a polemic on how everybody got reference research wrong. And I did, and it caused indigestion in the editorial [quarters?] and it was immediately the most downloaded article that journal had. And I'm waiting to hear of funding for a sequel.

RW – Well, when are we going to see this in Firefox?

MB – Well, it's [brittle?] because Firefox keeps changing its [support?]. Ran out of money.

RW – And IMLS supported this one little project for bibliography control, within Firefox, as an add-on to Firefox. Have you ever used that? I've forgotten the name of it. [Zotero]

MB – No, I didn't know about that.

RW – Yeah, and you can download from the IMLS website... it's been out a couple of years.

MB – Okay, the only thing that we haven't really touched on that relates to my work is that a charismatic friend called Lewis Lancaster spent his life studying how Buddhism changed as it moved north out of India, into the Himalayas, and couldn't go west because the Persian Empire didn't allow merchants to go in, so it went east into China and Korea and Japan, evolving as it went. And when he reached retirement, a friend said, 'why don't you write up your life's work, make a nice book?' And he could see the merit in this, and so he went to see a publisher and explain how many maps he'd need in this book. And according to the legend, the publisher did some calculations and said, 'well, gee, if we really did the maps you wanted, this book would retail at about four thousand dollars a copy, maybe there's some other publishers you would like to talk to.' And about that time he discovered digital maps. And, the main attraction of digital maps is that you can make dynamic maps that show change over time, like a video. So, he invited a bunch of, mostly humanities, scholars back to his home on the coast at [?] Beach, and they decided something should be done about it, so they unilaterally created the Electronic Cultural Atlas Initiative to do something about it, not that they really knew quite what they were going to do, but something needed to be done. And, astonishingly, at that time, there was no software affordable, available for dealing with change over time and maps. And a geeky archeologist in Sydney had developed some very clever software that would not only do that, but have an associated catalog of internet-accessible resources that would [?] that you could download and edit and treat as map layers and all this type of stuff. Time Map, it was called. The Google Map software is going to replace it now because it doesn't have all the functionality yet. This was really interesting stuff. and he's a very persuasive character. So he persuaded me to be co-director of this with him. It found an administrative niche in the University, for respectability purposes, but it was created by the then-Dean of International

and Area Studies. But, I think that University support for it peaked at ten thousand dollars per year for one year only. So it had to be self-funded, and foundations are willing to start new initiatives but they have to be paternity orders, they don't want to sustain things. And, it became increasingly difficult to fund this. It is an altruistic venture; it's trying to change the world by changing how scholars in the humanities and softer social sciences deal with time and place. And it's hard to fund altruistic ventures. We were organizing an international conference every six months, moving from continent to continent, using a whole network of friends and contacts and the most interesting people coming out of the woodwork saying, 'well, I've got this data I don't know what to do with it, help me.' We've sustained it, two ancient grandfathers, by shifting to research proposals that advance the interests of the Electronic Cultural Atlas Initiative, but, are also research projects that are fundable, for which he or I have credibility as researchers. That can be done. We channel our grants through [ECAI?], as the nickname is, because University provides no space, and therefore the University can't claim overhead space, so we get to spend more of the money. International and Area Studies was a victim of financial cuts, and April Fool's Day last year, it got reassigned to report to the Dean of the School of Information, which was a huge improvement. This is a public service activity and it's really very interesting.

RW – Alright, glad you got to cover a little bit of that. Thanks so much for sitting patiently and...

MB – I love it, try to stop me.

RW – But particularly patiently while I messed around with the equipment.

MB – I am my favorite topic.

RW – One day, hopefully, you will get a transcript.

MB – I know it's an awful lot of transcribing for somebody to do.

RW – Yes, it really is, but they all are, so... But, you know, if the IMLS grant will come through, we'll be fine. Plus, Sam continues to give me a graduate assistant for ten hours a week. I've used them for that partially, also. If we can put all these pieces together....

MB – Well I've done transcribing, so I know.

RW – We have a foot-pedal-operated machine. Sam says we have software that you can train, once it gets used to the voice, and I'll have to try that, see if it's at all...

MB – It would surprise me if it [the training of the machine] was worth it.

RW – Yeah, because of the foot pedal.

MB – Yeah, that makes a big difference.

RW – That's what we've been using.

MB – I have fifty hours of interviewees with English as a Second Language. You can never be sure of what they're saying really.

End of Interview and transcript
