

James Duff Brown: A Librarian Committed to the Public Library and the Subject Classification[†]

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Abstract: After two decades in the 21st Century, and despite all the advances in the area, some very important names from past centuries still do not have the recognition they deserve in the global history of library and information science and, specifically, of knowledge organization. Although acknowledged in British librarianship, the name of James Duff Brown (1862-1914) still does not have a proper recognition on a global scale. His contributions to a free and more democratic library had a prominent place in the works and projects he developed during his time at the libraries of Clerkenwell and Islington in London. Free access to the library shelves, an architecture centered on books and people, and classifications that are more dynamic were dreams fulfilled by Brown. With this biographical article, we hope to live up to his legacy and pay homage to a true librarian and an advocate of the public library and subject classification.

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1.0 Introduction

... the ideas behind open access¹ laid the bedrock for our present-day view of the public library as an open, free and essentially democratic public space. (Black et al. 2016, 211)

James Duff Brown (J.D.B.) was a Scottish librarian whose professional career took place entirely in the United Kingdom during the last decades of the 19th century and the first years of the 20th century. His career was the result of his learning experience and practice in bookshops and libraries and his commitment to the cause of the public library and the democratization of reading. Considered the person responsible for the creation and consolidation of open shelf systems in British public libraries, J.D.B. also left a legacy of great relevance to the history of library architecture and the theoretical and practical development of bibliographic classifications. In his vision, in order to make possible a true open library in which readers have direct access to the bookshelves, it was also necessary to transform the internal space of the library, facilitating the circulation of users, as well as reformulating the tools that would be used to locate the books, putting emphasis on systems with complex subjects.

In this sense, the legacy of J.D.B. in the field of knowledge organization permeates not only the systematic, theoretical, and methodological aspects that are usually studied in the area of bibliographic classification, but also the practical aspects related to users' needs. For instance, the informative nature of direct access to books compared to the bibliographic descriptions included in library catalogs, the effects of the library architecture on the users, and the specificity of subject classifications were some aspects addressed by J.D.B.

In this sense, and understanding the difficulty of doing justice in a biography to such an important figure for the global history of library science, as a narrative strategy we cover the aspects that we consider most relevant in J.D.B.'s life and career: his family origins, his self-education and training as a librarian, his relentless search for open shelves, his contribution to the architecture of libraries, and his conception of a new type of bibliographic classification.

2.0 Origins

Most of what we know about J.D.B.'s personal and family life is included in his exquisite biography written by William Arthur Munford (1968). On the other hand, J.D.B.'s legacy and contributions to the universe of libraries, something intrinsically intertwined with his life, was also the focus of

studies and tributes by researchers such as Clare Beghtol, John H. Bowman, Riddle Chas, Alistair Black, William Baker, Simon Pepper, and Kaye Bagshaw. We are indebted to all these researchers.

J.D.B. was born on November 6, 1862, on one of the locations built by a social reform organization for the working class, by the Water of Leith in Stockbridge, Edinburgh, Scotland. J.D.B.'s grandparents lived their entire lives in St. Fergus, near Peterhead and Aberdeen, in Scotland. J.D.B.'s father, James Brown, was born in St. Fergus and moved to Aberdeen to work in the grocery business. There, he met his future wife, Margaret Douglas, at the town choir, the Choral Union (as, according to family notes, both were talented singers). In 1855, Brown got a promotion and went to Glasgow to manage grocery businesses. In 1859, he married Margaret in Edinburgh.

James and Margaret had seven children: J.D.B., named after his father, was the second child and the first son. His eldest sister Maggie (named after their mother Margaret) married an orchestral musician, William Hay Stewart, with whom she had a son named James Douglas Stewart, who would also become a librarian and esteemed member of the Library Association. James and Margaret's third child was William Alexander, who worked in the stationery business but was not financially successful, an aspect that caused numerous conflicts with J.D.B. (Munford 1968, 1-2). The fourth and fifth children, Elizabeth and Henry, died in infancy. Charles Edward, ten years younger than J.D.B., was the sixth child of the Brown family. Blind from birth, Charles became a pupil of the Royal Normal College for the Blind. J.D.B. learned Braille to be able to correspond with his brother, who in turn died when he was only twenty years old. The youngest child was Douglas, the most unattached member of the family. He migrated, in his own way, to America first and then to South Africa.

According to Munford (1968), music and books were always present in the Brown family, and they were a fundamental part of J.D.B.'s childhood and adolescence. His father had a great interest in singing and many friends in the musical field. His mother, who had previously been a soprano in a choir in Aberdeen, had a huge repertoire and loved to sing for the children. His eldest sister, Maggie, was a pianist and a concert singer, while his brother Charles, due to his blindness, developed a great ability to listen and recognize sounds and musical notes, thereby becoming the subject of medical research related to hearing.

The Brown family had many books that were shared with the children. His mother had read adventure novels for young adults and stories of heroes on a daily basis since J.D.B. was four years old. One of the writings left by J.D.B.

himself, as reported by Munford (1968, 3), commented about his mother: “[She was] an accomplished reader and kept her own children quiet for hours by reading aloud such books as Ballantyne’s *Silver Lake* and other popular books of the period”. No doubt, the work and vision of J.D.B. for the universe of libraries and librarianship was influenced by this environment full of books and music from the second half of the 19th Century, as well as his personal and professional experience to follow.

3.0 Education by practice: school, bookshop, and library

J.D.B.’s first contact with education was the Sunday school² in St. Fergus, early in his childhood, when he and his eldest sister Maggie went to live with his grandparents. In 1870, at the age of eight, J.D.B. was sent to the Church of Scotland Normal School in Lothian Terrace, where he was taught Greek, Latin, English, French, and other traditional subjects. J.D.B. stayed only five years in this institution as he left it in July 1875, at the age of thirteen. According to Munford (1968), J.D.B. received a solid educational base, albeit too brief, since in the 1870s there were no better day schools in Edinburgh than the Normal School.

When he left school, J.D.B. started work at the Edmonston and Douglas bookshop on Princes Street, more specifically in the publishing department, where he stayed for about a year. In 1876, he moved with his family to Glasgow, a city that had a population of half a million people (quite a different reality from the experience J.D.B. had had until then) and assumed the position of junior assistant for the bookseller W.R. McPhun and Son on Argyle Street.

In 1878, with one year of experience at Edmonston and Douglas and two years at W.R. McPhun and Son, J.D.B., then sixteen, applied for and obtained a position as a junior assistant at the Mitchell Library in Glasgow on Ingram Street. This was the beginning of J.D.B.’s career as a library professional. The Mitchell Library had been founded by a local tobacco distributor named Stephen Mitchell, and in 1878 it was under the direction of English librarian Francis Thornton Barrett. Thus, the Mitchell Library did not belong to the municipal library system and there were many discussions about the public and civil purpose that this library should fulfill. According to Munford (1968, 6), until 1899 the city of Glasgow was not a model at all in relation to libraries.

J.D.B.’s team at the Mitchell Library included F.T. Barrett, who had also started his career in bookshops and had moved to Glasgow after ten years working as a sub-librarian of J.D. Mullins at Birmingham Public Libraries, sub-librarian John Ingram, senior assistant Thomas Mason, and assistants Robert Adams, James Gray, and William Simpson. At the time, the Mitchell Library had a collection of around 15,000 books. During the ten years that J.D.B. worked at

the library, the collection increased to around 80,000 books despite the poor working conditions of the team and the precarious space, facilities, ventilation, etc.

As Munford (1968) points out, the Mitchell Library’s collection was the main focus and result of J.D.B.’s work. It significantly increased the number of books of poetry, theology, history, topography, and biography, in addition to having a reading room with around three hundred periodicals of English, American, and French origin. In 1881, when J.D.B. was almost nineteen years old, he was promoted to senior library assistant.

At that time J.D.B. also began to work on a comprehensive biographical dictionary of musicians and, in 1884, he was appointed as Glasgow correspondent for the London Musical Standard. J.D.B.’s *Biographical Dictionary of Musicians* was published in 1886 by Alexander Gardner at Paisley. The dictionary aimed at music students and other people interested in art and included 622 pages of alphabetically arranged material, two pages of corrections and additions, and thirteen pages of a bibliographic subject index. Before turning twenty-four, J.D.B. was the editor responsible for a new edition of *Caledonia, or, An Account, Historical and Topographic of North Britain from the most Ancient to the Present Times*, by George Chalmers. The original three volumes of this work were published in 1807, 1810 and 1824 respectively (Munford 1968, 9-10). It is possible to find in the (online) catalog of the National Library of Scotland the following reprints from Chalmers’ *Caledonia* that would be edited by J.D.B.: 1888, 1889, 1890, 1890 and 1894 respectively.

J.D.B.’s income increased very slowly in the 1880s, a reason why his vacation trips were limited to short walks in the Glasgow region (such as the Clyde Valley) or visiting relatives in other parts of Scotland. However, this limitation gave him the opportunity to inspect historic libraries and buildings in the Glasgow area, something that would make a great impact on his career as a librarian.

In 1884, he fell in love with his cousin Annie Watt, who would become his wife three years later. In 1885, during the Glasgow Fair Week in July, J.D.B. visited London for the first time. According to Munford (1968), who had access to J.D.B.’s own unpublished autobiographical notes, this visit to London significantly expanded J.D.B.’s horizons, as he visited museums, art galleries, parks, cafes, and important locations of the English capital. In 1886, he volunteered to join the Scottish Territorial Army and remained as a member until the day he moved to London. As a result, he was responsible for editing many works and articles related to the Army’s Volunteer Movement, which at the time was of great interest to many people in Scotland.

On September 1, 1887, J.D.B. married his cousin Annie Watt in Waterbeck, the bride’s hometown, and they had a modest honeymoon in Crieff. Since J.D.B. had not achieved

financial success yet, they did not live in any big city as was customary at the time, but they settled in Shawlands, a small town between Glasgow and Rutherglen. In July 19, 1888, their first daughter Marjorie was born.

On September 4-7, 1888, the Library Association of the United Kingdom held a conference in Glasgow at which advocates of the Public Libraries Acts, such as Richard Brown and Francis Thornton Barrett, had the opportunity to encourage the adherence of the Glasgow libraries to the Acts. J.D.B. presented a detailed work on "The arrangement of large subject-headings in dictionary catalogues", showing a deep knowledge of British and American library practice. This work was cited by Munford (1968, 12), but the author did not include any specific bibliographic reference for this work. His work and views at the conference, which were the result of years of experience at Mitchell Library, attracted the attention of H.W. Fincham, a representative of the Library Commissioners, who selected him along with 82 other candidates to compete for a position at The Clerkenwell Free Public Library. After two more rounds in the selective process, the commissioners in charge reduced the candidates to just four librarians. After conducting all interviews, on September 27, 1888, J.D.B. was appointed as the new librarian at Clerkenwell. On October 8 of that year, J.D.B. with his wife and their daughter Marjorie, arrived in London beginning a new chapter in the career of this promising librarian.

By the time J.D.B. arrived in Clerkenwell (central London), the region was notably populated by local merchants in the areas of watchmaking, jewelry, and clothing, and by postal officers, and had a strong link to the Anglican and Presbyterian churches. The building in which the Clerkenwell Library was located belonged to the Merchant Taylors' School at the time. Thus, commerce and religion were very present in this new professional environment for J.D.B. Munford (1968, 14) described the urban context of Clerkenwell as follows:

Clerkenwell, when Brown first knew it, was still governed mostly parochially, in common with the rest of London outside the City's square mile. The Metropolitan Police, from 1830s, and the Metropolitan Board of Works, from the 1860s, had certainly begun to bring a new kind of order – and a frequently much resented one – into specialised aspects of London life, in 1888, the Metropolitan Boroughs were still more than a decade away in the future.

During his first month in Clerkenwell, J.D.B. worked and lived with his family in temporary offices until November 1, 1888, when they moved to Gibson Square, on Liverpool Road Islington. During this period, he bought furniture, prepared signage and information, selected serials and periodicals, and hired cleaning staff for a temporary reading

room that would open on November 20 of that year. This reading room would very quickly become popular in the region. As reported by Munford (1968, 16), by the beginning of 1889, J.D.B. had his first list of works approved for purchase, acquiring 4,214 volumes. In March 1889, library lending started to operate with about 8,000 volumes, and J.D.B. added two assistants to the team: Miss M. Watt (a relative of his wife) and Miss A.D. Peel. This was indeed an important step, as, at the time, it was not common at all to employ women in London libraries. He was probably the first British librarian to break with the tradition of only employing men in libraries.

After a contest promoted by the Clerkenwell Commissioners to choose the design of the permanent library building, the foundation stone of the Clerkenwell Library was laid in March 1890. The new permanent facilities for library services were opened by the Lord Mayor of London on October 10, 1890. The offices of J.D.B., the commissioners, and the library staff were located on the second floor of the building, the general reading room and the reference department were located on the first floor, and the news room and the lending department were located on the ground floor. J.D.B. played a significant role in the architectural design and organization of the library.

The lending library used request forms for the loans. When comparing information presented by Munford (1968, 17-8) and the British Library online catalog, it is possible to infer that the catalogue adopted by the Clerkenwell Public Library at that time was the printed catalogue compiled by J.D.B. in 1889 (Brown 1889a), which, according to Munford (1968, 17-18), was classified based on the Manchester Free Library catalog of the 1850s, developed by Edward Edwards:

- A* Theology, philosophy, Church history
- B* Topography, travels, antiquities
- C* History, biography and correspondence
- D* Law, sociology, education, political economy
- E* Natural and mathematical sciences
- F* Fine and recreative arts
- G* Useful and constructive arts
- H* Language and elocution
- J* Poetry and the drama
- K* Fiction
- L* Miscellaneous and collective Works

John Y.W. MacAlister, assistant librarian at the Royal Medical and Chirurgical Society, a leading figure in British librarianship and one of the original members of the Library Association of United Kingdom, became the editor-in-chief of *The Library* (a publication from the Clerkenwell Library), having great ambitions for the publishing service. The writing contributions of J.D.B. to the Clerkenwell Library started slowly,

as at the time he seemed to be more engaged in writing for Greenwood's Public Libraries with whom he had had a publishing relationship for some time. However, in 1890, J.D.B. wrote an anonymous article entitled "Provocative to a Discussion on Library Statistics" that was published by *The Library*. In this paper, he severely criticized the comparative analyses between libraries based on statistical data. In fact, during the following two years, this would be a topic of interest for J.D.B., although nothing compared to the issue of open shelves in which he would dedicate all his energy.

4.0 The question of open shelves

In the 1890s, according to Black et al. (2016, 211), books in British public libraries were borrowed, as a rule, using the catalog descriptions for their location, and readers could borrow only one book at a time. Direct access to the books on the shelves, although already happening in the United States, had not been achieved in the United Kingdom yet. There is no way to exactly pinpoint from where J.D.B. received his inspiration for his open shelf system, however, Black et al. (2016, 213) suggest that two important British librarians might have been a great influence: J.Y.W. MacAlister, then editor of *The Library*, and Thomas Greenwood, of the Gladstone Library at the National Liberal Club. Both were avid open shelf advocates and expressed severe criticism of the existing systems in the United Kingdom.

In an article entitled, "A Plea for Liberty to Readers to Help Themselves", published in 1892 under the pseudonym "The Other Side of the Counter", Brown (1892b) seemed to declare his open shelf revolution for public libraries, and especially for the lending library. Supported by other open shelf enthusiasts, such as MacAlister and Greenwood, and the reality that the United States had already adopted it, J.D.B. would make another powerful advance in the discussion by proposing a gradual shift from an arrangement based on the alphabetical order of authors to the systematic order of subjects. This shift would facilitate open shelves that allowed readers to become more familiar with the books on the shelves. Black et al. (2016, 214) reported that J.D.B. might have read publications by the American Library Association in *The Library* in which they related their arguments and experiences with open shelves in the United States.

In July 1893, J.D.B. and two more colleagues, Mr. Peter Cowell (Liverpool Public Libraries) and Miss M.S.R. James (People's Palace), were selected to participate in the International Library Congress in Chicago. This trip to the United States certainly sparked in J.D.B. a desire to modernise British municipal public libraries, delving into his proposal of open access to the shelves. On that trip, J.D.B. also met prominent librarians of American Librarianship such as Melvil Dewey. Upon returning to London, and after evaluating the pros and cons of American libraries, J.D.B. (cited

in Munford 1968, 27) reported to the Clerkenwell commissioners as follows:

Beginning at Boston, I travelled by way of Albany, Buffalo, Cleveland, Chicago and Washington to New York, visiting the chief libraries at each place, and making myself acquainted with the methods of more than a dozen institutions which are regarded as the most representative in the Eastern States... Although the American libraries are doing very good work, they are not, as claimed, doing better work than those of England; while in most cases they cost very nearly twice as much, and accomplish a great deal less work. [...] The almost general absence of news-rooms is one of the most striking differences [...]. The great value of the newsroom as a feeder of the Public Library is evidently not yet recognised in America, and it is inattention to this and order features which tends to give American libraries a somewhat deserted aspect.

But, if on the one hand J.D.B. criticized the weaknesses observed in the American libraries (mainly the absence of the news room), on the other hand, he also highlighted some positive aspects (Brown cited in Munford 1968, 27) such as:

the almost universal employment of women assistants, some of whom university graduates. A number of women also hold positions as Chief Librarians. In one very important aspect the American Libraries are superior to those of Britain and that is in the closer connection which has been established between schools and other parts of the educational machinery of the country.

The proximity of the American libraries to education was, according to J.D.B., the main reason for the patent recognition that they had in society, something that did not happen in England.

But perhaps the aspect that most positively impacted J.D.B. (Brown cited in Munford 1968, 27) on his trip was the question of open shelves, promoted in American public libraries:

One feature of great value which is almost universal in America but only occasionally in England is the practice of admitting readers to the book shelves in reference libraries [...] Personally I have long been in favour of this kind of unrestricted access to books but owing to the arrangements of our Library. Have been unable to advise the Commissioners to introduce the plan. Never-the-less the practice is daily becoming more widespread and it is quite evident that in a few years most of the complicated indicator and barrier systems

will be abandoned [...]. When time permits and if the Commissioners desire it, I shall prepare a report on the possibility of applying the system or a part of it to our own library.

This report after the trip shows how much J.D.B. was willing to reformulate not only the operational part of the public library, but also the instrumental part and the tools that are necessary to achieve success. He was aware that, in order to open access to the bookshelves, catalogs should also be reformulated, and new methods created for locating books. The opening of access to the shelves would not only require an instrumental reformulation, but also an adaptation of all the work that was done by the librarians, a reason why J.D.B., although supported by the Clerkenwell Commissioners and some colleagues, found some resistance among the library staff. In fact, any change of method required a lot of effort during that time, especially considering the limited space in municipal libraries. However, the open shelf revolution had started and it was not going to stop. It was necessary to create new dynamics and methods to facilitate the location of books by readers and make them enjoy a freer library.

A method of locating books, known as the “indicator”, had already been used in British public libraries in the past, such as those in one branch of Manchester Public Libraries, and the indicator created by Alfred Cotgreave, librarian at Wednesbury, West Midlands, England. Cotgreave’s indicator served as the basis for the method developed at Clerkenwell. According to Cotgreave (1885), this indicator was a wooden frame fitted with rows of small slots; each contained a small book like ledger held in a metal tray. Each mini-ledger referred to an actual book in the closed collection. The ends of the tray were marked with a number that was linked to the actual book. One end was blue for books in the library, the other end was red for those out.

By early 1894, when the proposal was presented, Clerkenwell seemed to be prepared for the change. According to Munford (1968, 31),

Fiction, children’s books and poetry were arranged alphabetically by author, with initial letter shelf guiding. The main body of the non-fiction was fortunately already broadly classified by J.D.B.’s adaptation of Edwards’ Manchester scheme and called for little more than case and shelf guiding. Manilla charging slips (5x2 in.), ruled double column for issue dates and readers’ number, were written for each of the 10,000 volumes in stock and filed ready in numerical order in charging trays. Borrowers’ cards, similar but one inch shorter, were also prepared for each of the 3,700 registered readers, and filed ready by surname.

After one month of closed doors to carry out the work, on May 1 1894 Clerkenwell re-opened as the first British library with an open lending department. The quality of its open shelves, celebrated by some and criticized by others, had to be defended subsequently by J.D.B. and the other enthusiasts for the new system. Perhaps the most explicit defense of Clerkenwell’s open shelves system was made by MacAlister (1894 cited in Black et al. 2016, 217) in an issue of *The Library*:

I very heartily congratulate Mr. Brown on his enlightened courage in proposing this departure, and I equally congratulate his commissioners [...] upon the cordial way in which they have supported him in carrying through a scheme which would have been regarded as impossible and Utopian five years ago, and is still regarded with suspicion and mistrust by many who ought to know better.

After the opening, J.D.B. was also very interested in knowing the opinion of users regarding the new system of accessing books, as for him the success of the system would depend to a large extent on the satisfaction of those who used the library. Thus, he invited library users to express their opinions and points of view regarding the system change. This invitation shows how J.D.B. was truly focused on users’ satisfaction and, in consequence, believed all the work of the modern library should be centered on that.

J.D.B. published an annual report (Brown 1894c cited in Black et al. 2016, 218) including Clerkenwell’s first experience with the open shelves system, highlighting its success among the users:

The Open Lending Department [...] has been the most interesting and successful feature of the year’s work. From the very first it has proved attractive to borrowers and of benefit to them and the staff. The practical result of the system so far has been to thoroughly satisfy the great majority of the borrowers by enabling them to select books by actual examination and comparison. It has also been the means of placing in active circulation good books which formerly used never to quit the shelves... Personally, I have derived immense advantage by being brought into direct contact with borrowers and their wants, and the staff has also profited greatly for the same reason. The conduct of the borrowers has been admirable in every respect, very few of the drawbacks which were anticipated having been felt.

These words reflect the satisfaction of a librarian who was no longer concerned just with the operational side of the library, but mainly with the satisfaction of the readers, who,

thanks to the open access to the shelves, could directly access and compare the books that best met their information needs and wants. Consequently, although not specifically referring to that, J.D.B. was opening the doors of British libraries to the possibility of a browsing process by the user, as an important tool for his information needs.

In September 1894, at the Conference of the Library Association in the United Kingdom, H.W. Fincham presented a classification system developed by J.D.B. and J.H. Quinn, librarian at Chelsea Public Library. The system, known as Quinn-Brown, was presented in a paper entitled “Classification of books for libraries in which readers are allowed access to the shelves” (Brown and Fincham 1894b). Such classification, notably based on Edward Edwards’ classification, divided the subjects as follows (Munford 1968, 36):

- A Religion and philosophy
- B History, travel and topography
- C Biography
- D Social science
- E Sciences
- F Fine and recreative arts
- G Useful arts
- H Language and literature
- I Poetry and drama
- J Fiction
- K General Works

The last years of the 19th Century marked J.D.B.’s life with several family tragedies and professional struggles. During the time J.D.B. and his wife lived on Raleigh Road, Hornsey, they had three more children: James Charles, born in 1890, Margaret Elizabeth, born in 1891, and Phyllis Annie, born in 1893. Unfortunately, Phyllis died in 1896, victim of measles at the age of two, and James Charles died of scarlet fever at the age of six. The Brown family felt so devastated that J.D.B., his wife and daughters moved to a new residence on Allison Road, in order to ease the pain and leave behind the memories of such fateful events.

At this time, J.D.B. also faced some disagreements about his salary at Clerkenwell and more severe criticisms related to the open shelf system, both at operational and structural levels. As a response, J.D.B., and eleven other librarians from public libraries that had adopted open shelf systems, wrote a pamphlet entitled *Account of the Safeguarded Open Access System in Public Lending Libraries: Prepared and Circulated by the Librarians in Charge of English Open Access Public Libraries* (published in 1899), which, according to several authors (Munford 1968; Black et al. 2016), was a defence of the open shelves in public libraries using statistical data from the five years of experience using open shelf systems in their libraries. The seven points made by the open shelf advocates were (Munford 1968, 44):

1. Annual issues tended to increase
2. Losses of books were negligible
3. The percentage of fiction issued showed a slight decrease
4. Extra wear and tear on the book stock was very slight
5. Misplacement of books was slight
6. One assistant can take in, give out, and register from 90 to 100 volumes per hour
7. Borrowers not only raise no objections but highly approve the method in every respect.

J.D.B. was a pioneer advocate for open shelves in British libraries and a leader of the movement. According to Black et al. (2016, 140), J.D.B. “believed that the social barriers of the Victorian library needed to be broken down”. Note the word “barrier” is doubly significant here because, in the case of libraries, it refers not only to a social barrier but also to a physical barrier, since access to the collections was restricted. In 1898, J.D.B. gained advantage in his open shelf crusade by creating his own publication – *The Library World: a medium of intercommunication for librarians*. J.D.B.’s plan was to create a journal aimed at both librarians and library users, providing a space for discussion and feedback related to Librarianship, its practice, and other topics. In the words of J.D.B. (Brown cited in Munford 1968, 52):

The Library World will be primarily a practical magazine, devoted to the urgent needs of the present, and its chief endeavour will be to promote increased efficiency in every department of library work, and to foster more intimate and useful relations between libraries and the public.

However, it was not until the fourth and fifth issues that *The Library World* made an explicit case for open shelves, abandoning for good the anonymity of the publications (Black et al. 2016, 211):

Open access became the dominant system in use in almost all public libraries. It may have been the wide-scale provision of open access that influenced the interior arrangement of the public library more than anything else, an influence that began in the 1890’s and saw its heyday in the 1920’s and 1930’s.

On the other hand, a reformulation of the internal organization and layout of libraries would also be a necessary condition to implement the open shelf system. As a result, J.D.B. would align with those professionals who were responsible for the physical design of the library: the architects. Interestingly, the question of library architecture or library design became a very important aspect of the English tradition of library and information science. In fact, this was

even a central concern of the British Council which, later in the 1980s, provided training on this topic to librarians around the world.

5.0 The question of library architecture

To make the open shelf system functional, it was necessary to rethink the spatial features of buildings that housed libraries, and more specifically, the design of the facilities. J.D.B. had stated that excessive, impressive, and expensive buildings provided better collections of bricks than of books. Ideally, bookshelves should be against the walls whenever possible to allow readers to move freely around the room. His idea of an updated collection for a library, according to Black et al. (2016), did not mean having too much storage space for the books, as most of them should be outside the library, borrowed by users in their homes.

J.D.B.'s vision for the reformulation of library architecture had the fundamental support of Henry Hare, a library architect of the Edwardian era who had started his career in 1893, in Oxford. It was not until 1905 that J.D.B. strengthened ties with Hare, when he was appointed librarian in Islington. This connection meant the alliance of an architect devoted to modern library designs and an advocate of the open shelf system which needed a modern architect.

By March 1905 J.D.B. had moved with his family to Islington, a district located in north London. They lived in Canonbury Park South and by September 1906 their last child, Sylvia, was born. The district of Islington had a population of about 350,000 people and a decent urban infrastructure. However, the development of the municipal libraries of Islington was still somewhat behind. Although several attempts to implement the Public Library Acts had occurred since the 1870s, it was not until 1904, when J.D.B. was responsible for the design of the North Branch of the Islington Central Library (one of the four branches of the Islington Central Library), that the district actually applied the Acts. As soon as J.D.B. was put in charge, he started discussions with the architects about aspects that affected the selection of books and periodicals, budget estimations, and the formulation of proposals for the North Branch of the Central Library in Islington.

His previous experience with the implementation of the open shelf system at the Clerkenwell library in 1894, publicly praised by his friend MacAlister, would greatly assist J.D.B. in this new venture in Islington. The design at Clerkenwell had adapted a remarkably irregular building to encourage the circulation of readers through the common spaces of the library. J.D.B.'s planning for the Clerkenwell lending library included placing the books on Theology, Poetry, Languages, History and Travel, and Useful Arts, as well as the periodicals, on shelves around the walls. To maximize the space for the circulation of users, only eight shelves were

allocated in the middle of the room, grouped into four parallel islands heading the desk. These shelves would display the books on Sociology, Fine Arts and Miscellaneous, Books for young readers, Fiction A-G, History and Travel, Fiction H-R, Biography, and Fiction S-Z, as shown in Figure 1.

Here it is possible to observe an implicit concern not only with users' freedom in relation to browsing, but also with their comfort when circulating through the library spaces.

In their book devoted to possible social engineering in the context of British public library buildings, Black et al. (2016) dedicate an entire chapter to the revolutionary role that the open shelf system played in the area of library architecture in the United Kingdom. It is worth noting the emphasis that the authors give to J.D.B. in this chapter, a central figure in the new style of architectural planning for public libraries in England.

After the implementation of the open shelf system at the Clerkenwell lending library, architects and librarians were keener to work together and discuss the advantages and disadvantages of this kind of system. This relationship engendered a sort of new specialty for the architectural planning of public libraries, as the traditional architects did not seem to agree with the views of librarians. Publications written from the perspective of architects between 1897 and 1904 did not express much excitement regarding the open shelf movement. The situation became somewhat more favorable to the new librarians only after 1905, when Henry Hare, at the Annual Meeting of the Library Association, spoke about the new challenges for library architecture having in mind the implementation of open shelf systems. In 1907, Hare also addressed a group of architects and librarians at the Royal Institute of British Architects and showed sympathy for the open shelf movement. Unlike other architects of the time, Hare and his followers, as reported by Black et al. (2016, 140), displayed their architectural views directly to librarians, speaking at conferences for librarians and published in journals on librarianship.

The Islington Central Library project in 1907 was Hare's closest encounter with J.D.B. Here the traditional design of the facilities was also put aside to leave more space for readers to circulate (Black et al. 2016, 140):

Islington's Central Library did away with the newspaper room, the separate ladies' room and the flats commonly provided for the Librarian and caretaker. With the space thereby gained, explained Hare, a much enlarged general purpose Reading room was provided [...] and the lending library stacks opened to the readers who were checked in and out from a desk which was centrally placed in the ground floor.

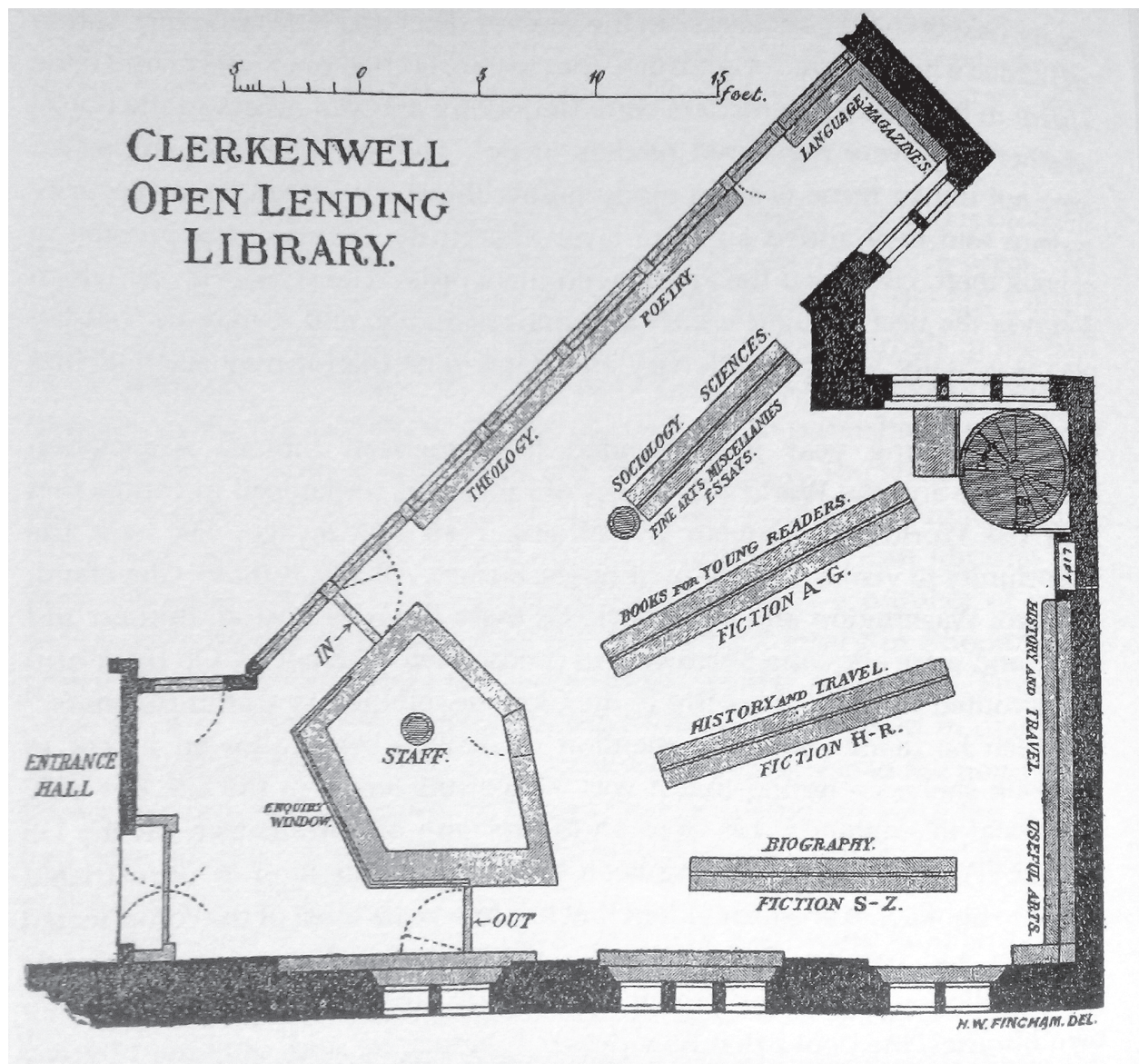


Figure 1. Plan for Clerkenwell lending library (from Black et al. 2016, 216).

This project also included a reading room for children on the ground floor and a lecture hall on the first floor, next to the reference library (Black et al. 2016, 141).

The ground floor contained a children's library in the front, with its small open borrowing collection, and a semi-circular general Reading room at the back with tables set out radially. Upstairs there was a lecture hall, and at the back a radial open access adult lending library. Two assistants – one on each floor – could run the branch, making use of the sight-lines to help rather than 'police' the user [...] The general absence of controls and of the compartmentalisation so typical of Victorian libraries was what made the Islington North Branch modern.

The other branches of the central library followed the logic defined by the North Branch that was under the responsibility of J.D.B.

Thus, this architectural planning of public open shelf libraries, with all the space that this type of access requires, space for the circulation of readers, reading rooms, lending counters, reference service, and lectures, gained relevance in the United Kingdom after the completion of the Islington Central Library. In fact, this architectural design carried out by J.D.B and Hare in the first decade of the 20th Century achieved such a level of success that it became a model for modern public libraries embracing open shelves.

However, in order to unleash all the potential and efficiency of these new open shelves spaces, it was still necessary

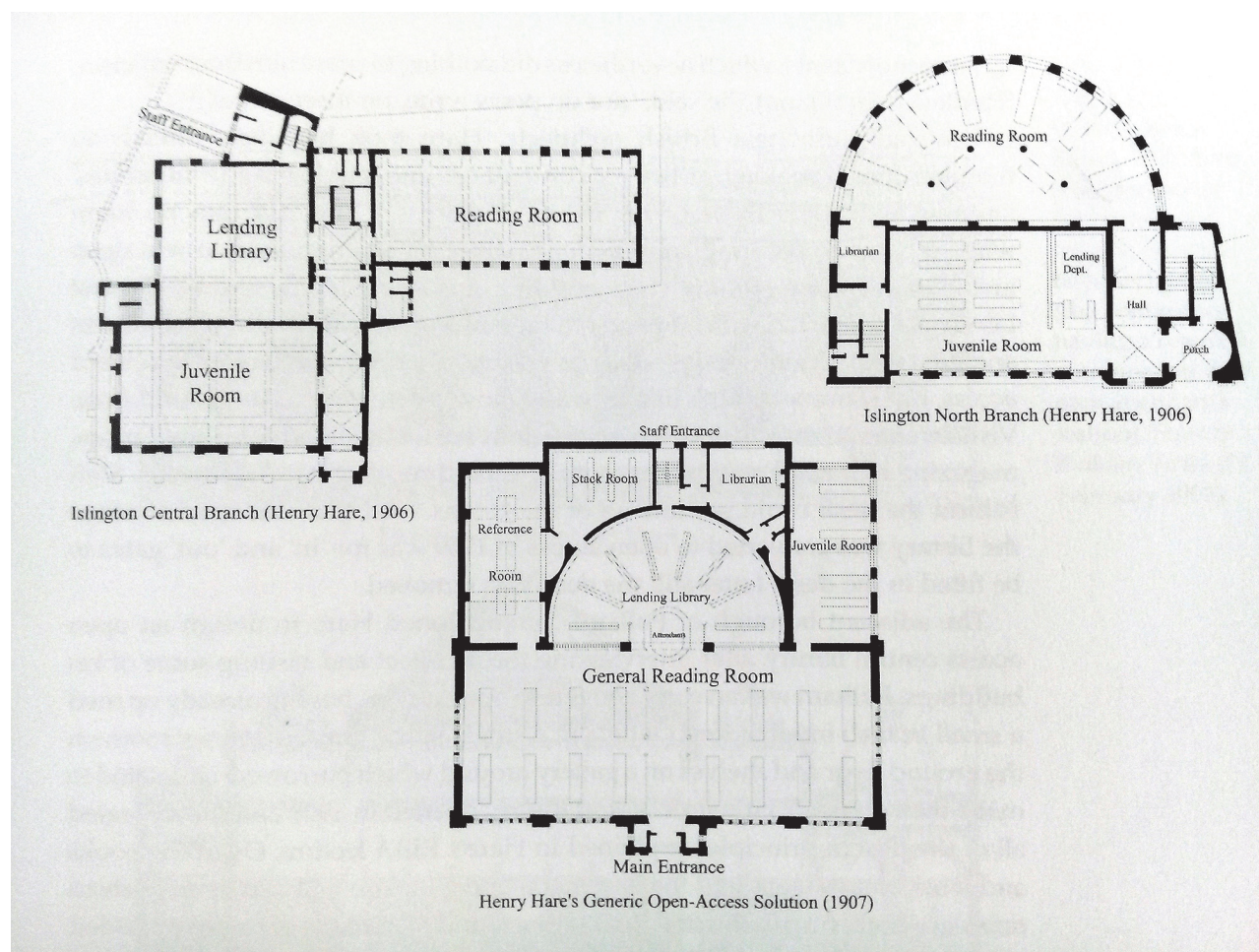


Figure 2. General project of the Islington Library (Black et al. 2016, 141).

to devise a new way of accessing the books on the shelves. In other words, it was necessary to rethink and redesign the bibliographic classification to be used.

6.0 The question of the classification of books

The classification of subjects was something in which J.D.B. dedicated a considerable amount of time during his career. While the beginning of this interest might be traced back at least to 1894 with the publication of the Quinn-Brown Classification (Brown and Fincham 1894b), in later years J.D.B. would also develop and apply two other classification schemes of even greater relevance: the Adjustable Classification Scheme (1898a) and the Subject Classification (1906b).

In 1898, J.D.B., still a librarian at the Clerkenwell Public Library, adopted a profoundly historical and fundamentally practical style to present not only a new bibliographic classification, but also the description of how books should be physically arranged on the library shelves. “This work has been prepared to meet the requirements of those who are

engaged or interested in the study of practical library methods” (Brown 1898d, 3). In addition to reviewing the history of classifications of knowledge, highlighting those methods adopted in the philosophical classifications of Bacon and d’Alembert, and in the scientific classifications of Locke, Coleridge and Wilson, as well as in the classifications used in botany and zoology, J.D.B. gave special importance to the practical side of the application of bibliographic classifications in libraries. Using a combination of letters and numbers to designate subjects, J.D.B. also detailed the order and sequence in which the books were to be arranged on the library shelves. The most developed part of the book, as a typical manual for librarians, was intended for the daily activities related to book classifications and catalogs. In this part, J.D.B. recalled the classifications of subjects that had been adopted in the most varied European institutions, especially in France and England, and also in the United States, such as the classifications developed by Dewey and Cutter.

It was also in this book that J.D.B. made public and explained his Adjustable Classification Scheme (Brown 1898d, 97):

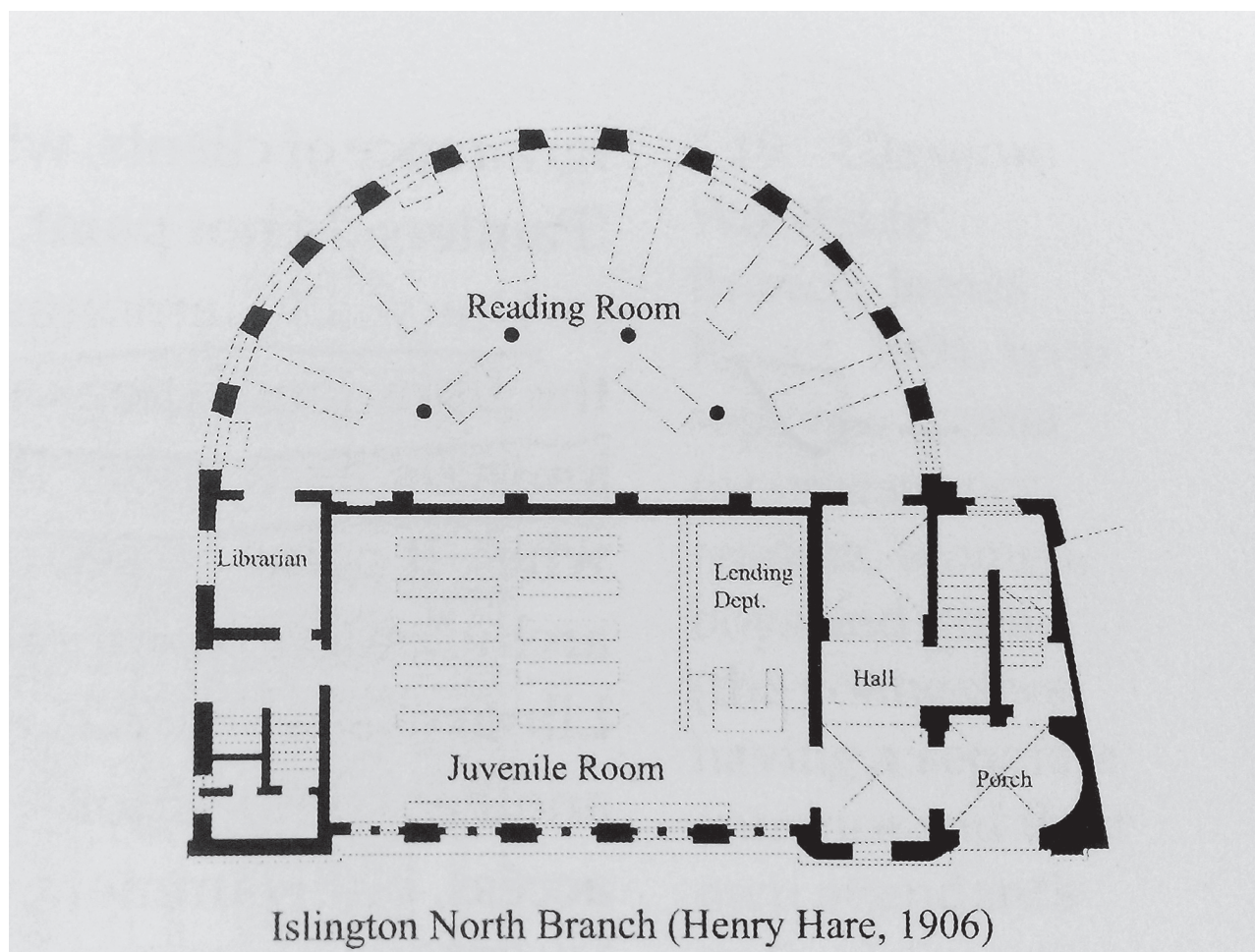


Figure 3. Project of the Islington North Branch (Black et al. 2016, 141)

This method of classification has been compiled largely in response to a demand for an English scheme with a notation enabling continual intercalation of divisions and single topics or books to be carried on. The Quinn-Brown method [...] has been used as a basis, but suggestions have been freely adopted from every important classification described in this Manual. The name "Adjustable" has been taken to distinguish the system from all others and to describe its principal feature. The main classes are distinguished by the first eleven letters of the alphabet, excluding *I*, and are arranged thus:

- A. Sciences
- B. Useful Arts
- C. Fine and Recreative Arts
- D. Social and Political Science
- E. Philosophy and Religion
- F. History and Geography
- G. Biography and Correspondence
- H. Language and Literature

- J. Poetry and Drama
- K. Prose Fiction
- L. Miscellaneous

Should it be thought desirable to have more main classes, or to divide any of those already fixed, double letters can be used for the purpose, as shown below:

- A. Natural Sciences
- AA. Mathematical Sciences
- B. Useful Arts
- C. Fine Arts
- CC. Recreative Arts
- D. Social Science
- DD. Political Science
- E. Philosophy
- EE. Religion

J.D.B. also listed the tables of his Adjustable Classification, as well as the alphabetical index of the subjects included in the tables.

Brown (1912a) presented a historical overview of the development of classification systems based on the purposes for which they were used, giving us a good idea of his views on subject classifications. He presented the distinction between “classifications of knowledge” (or philosophical classifications), “practical classifications applied to science”, “classification schemes for books, without notations,” and “classification schemes for books, with notations”. Regarding classifications of knowledge, which J.D.B. claimed to be classifications focused on main classes of subjects and linked to areas of knowledge with an encyclopedic perspective, he gave special emphasis to classifications developed by authors such as Aristotle, Francis Bacon, d’Alembert, Locke, Comte, Spencer, Pearson, and Richardson. Brown (1912a, 19) identified the four recurrent categories (guiding principles) in classifications by some thinkers: Matter, Life, Mind, and Record, distributed in the following order:

Aristotle: Matter – Life – Mind

Bacon: Matter – Life – Record – Mind – Record

Comte: Matter – Life – Mind – Record

However, the encyclopedic and generalist nature of philosophical classification systems was not adequate for the specification required by the sciences and even less adequate for the specification required by books, that, in turn, demanded a much greater level of detail. According to Brown (1912a, 20), “[t]he botanist has to decide what a daisy is, and the librarian the exact place for a book on a particular disease. The philosopher contents himself by establishing a class called Biology”. When discussing the classifications applied to science, J.D.B. stated that these types of classification are not only more comprehensive and detailed than philosophical classifications of knowledge, but also more precise and interesting. For these types of classification, J.D.B. highlighted the classification systems of plants and animals developed by botanists and zoologists of the 18th and 19th centuries, such as Carl Linnaeus, Antoine Jussieu, Georges Cuvier, and Richard Owen.

Although it is known how difficult it would be to distinguish philosophical classifications from scientific classifications, since, for example, the biological classification by Aristotle had an influence on scientific classifications such as that of Linnaeus, Brown (1912a) preferred, even without presenting any basis for this distinction, to consider philosophical classifications as those elaborated by philosophers with the aim of organizing disciplines and areas of knowledge (understanding that they were general knowledge classifications), while scientific classifications would be those intended for subjects treated within scientific areas, the latter being more specific than the former. It is possible to observe that the focus of J.D.B. was much more directed to the purpose and use of classifications than to their theoretical foundations.

Although J.D.B. recognized that philosophical classifications and the classifications applied to science often served as the basis for book classifications, he was also categorical when stating that library classifications demanded much more detailed subjects and, mainly, more practical concerns. In his view, the organization of knowledge provided by book classifications should not be limited to conceptual arrangements and logical speculations, they should also be adequate for the physical arrangement that was typical in the world of books.

In this sense, as he was not specifically concerned with the theoretical understanding of classification, but especially with the practical questions of classification, J.D.B. also highlighted the distinction between classifications for books without notations and classifications for books with notations. According to him, schemes without notations could be of two types: (a) schemes that, although specifically aimed at books, do not include codes and symbols to denote the divisions of classes, subclasses, and subjects; (b) schemes specifically aimed at books that include some kind of symbol to denote subjects but, however, do not provide notations for their arrangement on the shelves. In relation to these types of book classification, Brown paid special attention to the schemes developed by Konrad Gesner (in 1548), Gabriel Naudé (in 1627), William London (in 1658), Jean Garnier (1677), Thomas H. Horne (1825), the British Museum (between 1836 and 1838), R. Merlin (in 1842), Francesco Palermo (1854), Benjamin Vincent (in 1857), Nicholas Trübner (in 1859), Edward Edwards (in 1859), J.-C. Brunet (between 1860 and 1865), Lloyd P. Smith (in 1882), J.J. Ogle (in 1865), W. Swan Sonnenschein (in 1887), John H. Quinn, and his own classification scheme developed in 1894.

Another possible observation is that J.D.B. did not take into account the fact that the function of notations can be treated independently of the classification schemes themselves, since for a good scheme notations can be added later.

J.D.B. was especially concerned with the practical issues related to book classification and librarianship. In his view, the characteristics needed to link the conceptual arrangement to the physical arrangement would only be met by classification schemes for books with notation. Classifications for books without notation, according to Brown (1912a, 50),

... are primarily for use in arranging books in catalogues or on shelves without providing a system of serial numbers or marks by which single books can be referred to and found as well as placed. To a certain extent the marking of some of the systems could be used for finding and charging purposes: but class numbers alone, without some method of indicating individual books, are not sufficient for all purposes.

Regarding classifications for books with notation, the kind of classification in which J.D.B. was effectively interested, he gave a more detailed explanation of the classifications that emerged in the United States and Europe during the second half of the 19th century and afterwards, namely W.T. Harris's classification for the St. Louis public school system (1870); J. Schwartz's classification for the New York Library (1871); the Decimal Classification developed by Melvil Dewey in Massachusetts (1873-6); F.B. Perkins's classification in San Francisco (1882); the classification of Sion College in the United Kingdom (1886); O. Hartwig's classification for the University of Halle (1888); W.I. Fletcher's classification in Massachusetts (1889); G. Bonazzi's classification in Italy (1890); C.A. Cutter's classification in Boston (1891); J.C. Rowell's classification in California (1894); the classification of Princeton University (1901); the classification of the Library of Congress (1902); the decimal classification of Brussels (UDC, 1905); in addition to his own Adjustable Classification developed in 1898.

The critical analysis of the development of book classification until then, including his own work in the development of the Quinn-Brown Classification (in 1894) and the Adjustable Classification (in 1898), allowed J.D.B. to refine his understanding of the practical needs of book classification and the conception of his Subject Classification in the early 20th century.

It was in the book entitled *Subject Classification* (1906b) that J.D.B. presented to the public his main contribution to bibliographic classification. The classification system that took its name from the work, was, according to Beghtol (2004a; 2004b), the scheme in which J.D.B. conceived his most fundamental contributions to the evolution of classification systems, in his efforts to deal with the interdisciplinarity of subjects. (Szostak et al. (2016, 97) also noted that Brown was a precursor of non-disciplinary classifications.) He used, as an example from the Universal Decimal Classification, signs of addition (+) to connect different subjects from classes of the same or different subjects, thus enabling the means to synthesize complex subjects.

In addition, it also used a "categorical table", something like a list of elements that can be added to any division or subdivision in the schedules. For example: for "History of Commerce in Brazil", the subjects Commerce (*L800*), Brazil (*W720*), and History (*.10*) – from the categorical table – would be synthesized as *L800W72.10*.

Another aspect of the Subject Classification that was highlighted by Beghtol (2004b) was "one-place classification", which consisted of prescribing a specific place to so-called "concrete" subjects, that is, the reservation of a relevant place for the most substantial subjects. It is important to note that Julius Otto Kaiser, when designing his systematic indexing in 1911, used the term *concrete* to refer to the category that manifests the most substantial and static as-

pect of the subject. According to Sales et al. (2019), in J.D.B.'s view concrete subjects need fixed designations in order to gather all the works on that subject together, regardless their point of view. Rather than trying to have different classes for every possible point of view on a subject, J.D.B. decided to assign a single location for concrete subjects and gather all the works on that particular subject avoiding the scattering of materials. For example, the subject "rose" could be approached from different perspectives in biology, botany, decoration, horticulture, poetry, etc.; however, according to the Subject Classification, "rose" should always be located in botany (Beghtol 2004b). This view was devised to address the new problem of the physical location of documents, as the classificatory function of the bibliographic classifications as fixed and relative location systems was also one of the main concerns of J.D.B.

Yet in relation to the fixed location of subjects based on their most concrete principles, J.D.B. stated that the Subject Classification had as one of its goals "to express as nearly as possible its main principles, the placing of subjects under concrete or specific heads, and not simply at the standpoint or other qualifying feature of such subjects" (Brown 1906b, 79).

In the words of the author (1906b, 5):

This system of Classification has been compiled in response to a demand from many librarians in the United Kingdom for a greatly extended version of the Adjustable Classification, which was published in 1898. That system was not fully indexed, and its main classes and divisions are only worked out in detail here and there, to suit the needs of the smaller British municipal libraries. There was, in consequence, plenty of room for a much more elaborate and complete scheme, suited to the requirements of British libraries of all kinds and sizes, and this system of Subject Classification is the result. Its plan and method of application are set out so fully in the Introduction, that there is no need to explain here the principles of its construction or aim. The attempt to supply a complete classification of literature for libraries and general educational purposes could be justified on many grounds, but it will be sufficient to claim that a simple, fairly logical and practical method has long been wanted in British libraries.

This excerpt makes clear that the intention of J.D.B. for the Subject Classification was to create a classification system that was guided by a simple, logical, and practical method that could be used anywhere and in any type of library. Once again, it should be noted that Brown's concern with the satisfaction of users, considering his open shelf system, also converges with his conception of classification. Thus, it would not be unreasonable to state that Brown was a pio-

neer in this aspect, since although Dewey advocated for open shelves and a mnemonic system, he did not show this concern with the library architecture and the circulation of users. According to Brown (1906b), it was the time for British librarianship to emerge with a general method of classifying subjects.

Although J.D.B. was concerned with creating a classification system that was simple, logical and practical, his Subject Classification could be considered a more dynamic classification from the point of view of the relationships between subjects compared to the other classifications in force until then. According to Ranganathan (1967), classifications could be enumerative (composed of a single table of subjects), semi-enumerative (composed of a table of main subjects and some tables of auxiliary subjects) or semi-faceted (composed of table of main subjects and tables of common and special auxiliaries). Ranganathan (1967) considered that all these types of classifications were constructed from a descriptive theoretical perspective and that only faceted classification could be considered theoretically dynamic. However, according to Sales et al. (2019), the Subject Classification by J.D.B. had already adopted in its notation the signs of + and : that served to connect main subjects of different classes thus giving greater dynamism to interdisciplinary subjects.

The Subject Classification, according to Foskett (1969), quickly gained popularity in the United Kingdom, to the point of even being considered the official bibliographic classification of England in the first half of the twentieth century.

Comparing the citation order of categories highlighted by J.D.B. in his studies of classifications, he observes the following orders (Brown 1912a):

Dewey Decimal Classification: Mind – Life – Matter – Record

Cutter Expansive Classification: Mind – Record – Matter – Life

Brown Subject Classification: Matter/Force – Life – Mind – Record

Based on the narrative that Matter and Force generate Life, that raises the Mind that will provide the Record of knowledge, J.D.B. consolidated the main classes of the Subject Classification based on the categories Matter and Force – Life – Mind – Record.

While stating the theoretical principles of his new classification scheme, J.D.B. made it clear (1906b, 11) how his goal was to distance it, to a certain extent, from the aforementioned philosophical and scientific classifications that traditionally had a structural emphasis on the distinction between theoretical and practical knowledge.

The old distinction between theoretical and applied science is gradually disappearing from all modern text-books, and it is obvious that, as the systematisation of science and its teaching improve, the separation between physical basis and practical application, hitherto maintained, will no longer be insisted upon. In this scheme of Subject Classification every class is arranged in a systematic order of scientific progression, as far as it seemed possible to maintain it; while applications directly derived from a science or other theoretical base, have been placed with that science or base. Composite applications of theory have been placed with the nearest related group which would take them without strain, and, as a general rule, all through the classification the endeavour has been to maintain a scheme of one subject, one place.

Without elaborating a long argument that would justify the order of the main classes of his system, Brown (1906b, 11-12) presented them as follows:

A GENERALIA. The divisions of this main class comprise most of the rules, methods and factors which are of general application, and which qualify or pervade every branch of science, industry or human study. They are universal and pervasive, and cannot be logically assigned to any other single main class as peculiar or germane to it.

B-C-D PHYSICAL SCIENCES. Matter, force, motion and their applications are assumed to precede life and mind, and for that reason the material side of science, with its applications, has been selected as a foundation main class on which to construct the system.

E-F BIOLOGICAL SCIENCE. Life and its forms, arising out of matter, occupy the second place among the main classes, and here are put general biological theories and facts, followed by plant and animal life, each in an ascending order from low to high forms of organization.

G-H ETHNOLOGICAL AND MEDICAL SCIENCE. Human life, its varieties, physical history, disorders and recreations, follows naturally as a higher development of plant and animal life, and completes the biological chain.

I ECONOMIC BIOLOGY AND DOMESTIC ARTS. The applications of plant and animal life to human needs, placed midway between the physical and mental attributes of man as indicating the primitive exercise of mind, and to assemble in one sequence the

Table of Main Classes.		
A	GENERALIA	
B-D	PHYSICAL SCIENCE	MATTER AND FORCE
E-F	BIOLOGICAL SCIENCE	} LIFE
G-H	ETHNOLOGY AND MEDICINE	
I	ECONOMIC BIOLOGY	
J-K	PHILOSOPHY AND RELIGION	} MIND
L	SOCIAL AND POLITICAL SCIENCE	
M	LANGUAGE AND LITERATURE	} RECORD
N	LITERARY FORMS	
O-W	HISTORY, GEOGRAPHY	
X	BIOGRAPHY	

Figure 4. Main classes of the Subject Classification (Brown 1906b, 79).

chief biological subjects. As a matter of practical convenience, rather than logical necessity, it was thought better to keep composite subjects like Agriculture, Clothing, Foods, etc. involving questions of origin, use and manufacture all in one place, close to the main classes from which they are derived, rather than to distribute them more closely at Botany or Zoology.

J-K PHILOSOPHY AND RELIGION. Mental attributes, order and beliefs of human life, following naturally from its physical basis, and primitive manifestation in the instinct of procuring food and clothing.

L SOCIAL AND POLITICAL SCIENCE. Social order and laws of human life. Placed here because, although society or family and Other tribal organizations may have preceded religion, mind, as embodied in philosophy, must have preceded both.

M LANGUAGE AND LITERATURE. Communication and recording in human life. The spoken,

written and printed word, which grew as a necessity out of the primitive operations of mind.

N LITERARY FORMS. The products of communication and recording in human life in their more imaginative forms; placed here on the ground that fable probably preceded more formal history.

O-X HISTORY, GEOGRAPHY, BIOGRAPHY. The actions, records and description of human life and its dwelling place. Arranged in this order and at this place because of their intimate connection, Geography, although logically related to Physiography, and Biography to Ethnology, are, nevertheless, as a matter of practical utility, and because of the literature actually existing, more naturally grouped here than separated.

Regarding the classificatory notation, J.D.B. mentioned the numerous attempts to ensure notational simplicity with the purpose of briefly indicating subjects and subject groups. However, he found that very short numbers or symbols were

not sufficient for the complexity of the subjects. There was also the need not only to distinguish between a main class and its divisions and subdivisions, but also to indicate the place, form, differences in authorship, title, and even the edition of the work. In that sense, J.D.B. opted to devise a notation on the broadest basis possible, assigning letters to the main classes and their respective groupings and providing numbers for all the subjects that belong to the classes (1906b, 13).

Thus, instead of crowding the Physical Sciences at one letter like B, they have been much more conveniently spread over B, C, D, with the result that important subjects like Railways and Shipbuilding are not mingled together at one number which must be especially sub-divided, but have seventy numbers allotted to them, and each number can be subdivided to any required degree by means of a separate table of forms and categories. Thus is produced a sequence of main classes, divisions and subdivisions, which are differentiated as far as possible by means of letters, figures, indentations, and varieties of type.

Thus, J.D.B. tried to address in his system the complexity of the subjects of books using mixed notations composed of letters, numbers, and other signs of connection, rehearsing what we can consider a classification focused not only on more general subjects, but also on the particular aspects of the subjects.

Furthermore, as Sales et al. (2019) pointed out, with the development and application of the Subject Classification, J.D.B. was one of the pioneers in classifying subjects based on their constituent parts, that is, a classification based on the fundamental elements of information that make up complex subjects. The work of Brown exerted, according to Begthol (2004a; 2004b), an effective influence on Bliss's Bibliographic Classification and Ranganathan's Colon Classification.

Begthol (2004a) highlights J.D.B. as one of the main figures in the development of the so-called modern classification that emerged at the turn of the 19th century to the 20th century. She argues this idea based on two aspects (2004a, 711):

The first of these is the general problem of how to express interdisciplinary topics in a classification system. The second is the establishment of a one-place "phenomenon class" in the second edition of the Bliss Bibliographic Classification (BC2) (Mills and Broughton, 1977-). These two examples show how Brown's ideas on combining topics and the need for a one-place system have been expanded and become more common in later classification theory and research.

Although the issue of interdisciplinarity, as a combination of subjects from different fields of knowledge, is still present today, J.D.B. at the beginning of the 20th century had already drawn attention to the fact that classifications would have fundamentally to deal with this problem. He noted that each specialist (biologist, anthropologist, chemist, etc.) considered their own field of knowledge to be the most important one, so classifications would have to provide ways of dealing with different perspectives, without, however, ignoring their arrangement function. The Subject Classification thus used the one-place logic (based on the degree of concreteness of the subjects) with the assistance of the categorical table to deal with more concrete subjects. The Generalia class is another proof of J.D.B.'s concern with interdisciplinarity. According to Maltby (1975), every subject that J.D.B. considered to be interdisciplinary or that, in some way, permeated other classes had to go under the Generalia class, such as Education, Logic, Mathematics, General Science, and Fine Arts. For Brown (1906), these were subjects that related to every branch of science, of industry, and of human activity.

This attempt to address the interdisciplinarity of subjects by grouping them in the Generalia class was not free of the criticism by classificationists. Maltby (1975, 46), for example, stated that:

Brown was right, in a sense, in his prophecy that many of the barriers between disciplines would break down and he argued almost persuasively in favour of this and other theories. But the result he offered is a highly subjective and practically unsound arrangement: despite changes in the field of knowledge since the start of the century and the intermingling of disciplines, the 'pervasive' classes really belong elsewhere, with the exception perhaps of general science, which (in its position at the end of generalia class) heralds the physical sciences. Brown's argument for the flow in SC is largely shattered by his own admission that certain arts subjects went into his generalia class owing to lack of room elsewhere – so the sequence offered can be justly described as unorthodox and inefficient.

Another criticism by Maltby (1975, 128) of the Subject Classification refers to the fact that J.D.B. had abandoned the logic of classification of disciplines, something that according to Maltby was wiser than any classification providing a "one place per topic" and which usually establishes an ideal order of subjects. For this author, the "one place" logic based on the most concrete aspects of the subjects condemned them to fixed positions in the scheme and overly elaborated J.D.B.'s system, making the associations of related subjects impossible.

However, despite his harsh criticism of the abandonment of classification by disciplines and the “one place” logic, Maltby (1975, 128-129) recognized the value of the Categorical Table of the Subject Classification, as it functioned as an efficient auxiliary resource for the concrete subjects of the scheme, allowing thousands of combinations that specified compound subjects in a much better way.

In the history of classifications, it can be seen that in the beginning of the 20th century classification systems went through a transition from the top-down “universe of knowledge” logic to the bottom-up “universe of concepts” logic. Although this transition became more evident and was consolidated with the development of the theory of Ranganathan’s faceted classification (in the 1930s) and the work of the Classification Research Group (in the 1950s), it is possible to see in J.D.B. an initial effort in the development of an analytico-synthetic method. This allows us to state that, similarly to the Universal Decimal Classification’s concern with the particular aspects of the subjects (concepts), the Subject Classification can be considered a semi-faceted classification scheme.

According to Beghtol (2004a, 712):

The analytico-synthetic view is that the process of classification takes place when a document is analyzed in order to discover its concepts and a notation is then synthesized to express those concepts. In the case of the Colon Classification, the notations are combined in the order of the famous PMEST [Personality, Matter, Energy, Space, Time] facet formula. The work of Ranganathan and the CRG is highly sophisticated in comparison to Brown’s work, but, like Brown, they argued that the ability to specify document topics through synthesized notation for individual concepts created a flexible and hospitable classification system.

As Sayers noted, Brown’s Categorical Table does not contain facets in the strict sense of analysis by only one characteristic of division at a time (1967, 173 n. 1). Nevertheless, if the concepts in the Categorical Table were sorted into a systematic order, a number of common facets could be formed.

According to Sales et al. (2019, 4-5), we can also say that J.D.B. had significant importance for the conception of the analytico-synthetic movement, whose methodological approach consisted of the combination of the processes of analysis (decomposition) and synthesis (recomposition) of subjects. In this vein, the analytico-synthetic movement, although systematized and popularized by Ranganathan, was the result of the efforts and works of several authors from the turn of the 19th to the 20th century, namely Brown, Otlet, Kaiser and Ranganathan, as shown in Table 1.

J.D.B.’s Subject Classification, in addition to contributing to the development of the analytico-synthetic movement, thus strengthening the study of the “universe of concepts” and not just the “universe of knowledge,” seems to be the key link between the open shelf movement and users’ needs. In other words, the knowledge organization provided by J.D.B.’s system contributed both to the theoretical and methodological advances in classification and to practical advances in the location of books on the shelves for open shelf libraries. Thus, J.D.B. worked with two tenets in knowledge organization that would be further explored in the user-centered movement and reader-interest classifications: (a) direct access to the shelves is much more informative than the library catalogs; and (b) classification (abstract and physical arrangement) based on the different points of view of the subjects is more interdisciplinary than the generalist classifications based on disciplines. Beghtol confirms this (2004a, 704):

	Analysis	Synthesis
Brown	Identification of concrete subjects (one-place classification) and interdisciplinary aspects of subjects (categorical table)	Classificatory notation. Junction of subjects from the same class or different classes and complementation with interdisciplinary aspects
Otlet	Identification of smaller information units (concepts, facts, and evidences)	Classificatory notation. Junction of subjects from the same class or different classes and complementation with auxiliary facets
Kaiser	Identification of the semantic categories (concretes and processes)	Verbal statement. Recomposition of subjects based on categories and expansions
Ranganathan	Identification of the facets that manifest the PMEST categories	Classificatory notation. Recomposition of the subjects of any class based on the facets of each subject

Table 1. Comparison of the analysis and synthesis of Brown, Otlet, Kaiser, and Ranganathan (Sales et al. 2019, 4).

He was one of the chief advocates of open access to the stacks for patrons in public libraries, and, like Dewey and Ranganathan, he strongly advocated the classified catalogue as the best method for helping library patrons find the materials they needed. Brown had strong views on every subject in which he took an interest. Through these wide-ranging activities and publications, he became one of the foremost and most highly respected librarians of his age.

In works by Baker (1990), Lyons and Chesley (2004), Bowman (2005), and Black (2007) it is also possible to find the importance and impact of the classification developed by J.D.B., as well as his role in the modernization of public libraries. According to Sayers (1955), Mills (1960), A.C. Foskett (1969), D.J. Foskett (1974), and Langridge (1973; 1976), the entire subdivisions of the tables, the categorical table, and the alphabetical index of subjects that comprised the Subject Classification made a great impact in the field of British Librarianship in the early 20th century, and two more editions were published in 1914 and in 1939.

7.0 His last days

In February and April of 1912 J.D.B. suffered two heart attacks that forced him to work from home from April 27 of that year. During this period, he still tried to deal with the problems of the library even remotely. Although on rare occasions he had the opportunity to go to the Islington Central Library to work on-site, his delicate health restrained him from doing his work in a normal way. In early 1912, Brown was suddenly struck by a unusual form of disease that puzzled many doctors, and they seemed unable to agree on the true cause of his illness. In total, eleven doctors provided care to J.D.B. during the last two years of his life. In an attempt to help him, doctors sent him to Bournemouth, in the south of England, but he remained prostrate on his bed for the period of seven weeks. According to Chas (1914, 262), when death was approaching, J.D.B. was taken home and, two days later, on February 26, 1914, J.D.B. passed away in his sleep at his residence in Canonbury Park at the age of 51.

The following editorial note published in *The Library World* in March 1914 (257), gives us an idea of the extent of the influence of J.D.B. in the development of a more open, democratic, and public library:

In the death of Mr. JAMES DUFF BROWN, the library profession loses one of its most striking personalities and librarianship its most powerful influence for progress. Any attempt at present to estimate the extent of his influence upon the modern public library must necessarily be inadequate, [...] he was the ideal born public librarian.

8.0 Conclusion

J.D.B. was a librarian who learned from practice to be concerned about the old problems of librarianship while creating a modern, more democratic, and more public librarianship in the United Kingdom. Public libraries with closed access systems, buildings that favored bricks instead of people and books, the absence of women in the library staff, and classifications that barely allowed the combination of different subjects were problems that J.D.B. tackled in conservative Great Britain at the end of the 19th century and beginnings of the 20th century. As a result, the public library became more public and open in Britain thanks to James Duff Brown's vision. His open shelf projects helped to develop new ways of building public libraries as well as inspiring other librarians to follow their steps.

As we can see, J.D.B.'s view of knowledge organization was manifested both in the theoretical development of bibliographic classifications, contributing to the conception of the analytico-synthetic movement, and in the exercise of a more democratic librarianship centered on users' needs. In pursuing a more public and freer library, J.D.B. had a coherent professional trajectory characterized by his efforts to create an open library system that also led to a reformulation of the physical space. In order to meet users' needs, J.D.B. worked on the development of a semi-faceted classification system. Notwithstanding, Brown's contribution to knowledge organization went beyond the development of tools and procedures and achieved a much broader dimension, showing how knowledge organization under no circumstances should operate in disconnection from the social demands.

To conclude this brief biographical text, we recall the words of J.D.B.'s friend and colleague, W.C. Berwick Sayers (1914, 263):

JAMES DUFF BROWN.

Man may not count thee with his greater ones,
Nor unborn ages reverence thy name,
For narrow borders bound the fields of fame.
And Earth remembers not her many sons;
But, where the unseen Recording Finger runs
To chronicle undying praise or blame,
Among the prophets, charactered in flame,
Thy name shall shine through all revolving suns.
So, rest in peace, thine eager pen laid by,
Thy merry jest, thy wisdom clothed in wit;
And close thy quiet, all-discerning eye,
That looked through life, and found a goal in it;
Thine every field has closed in victory:
Master and Friend, all hail!—'tis well with thee!

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Notes

1. Black, Pepper and Bagshaw (2016), J.D.B. and others used the term “open access”, for what is better termed *open shelves* or *open stacks* in order not to be confused with the contemporary meaning of *open access* as access to online electronic materials without a paywall.
2. An educational institution that is usually Christian. They were created in the 1780s in England to provide education for working class children. Since then, the term *Sunday school* has become the generic name for many different types of religious education practiced on Sundays.

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