The Release of the Muses

An Inaugural Lecture Given in the University of Rhodesia

Albert Harrison

UNIVERSITY OF RHODESIA

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by

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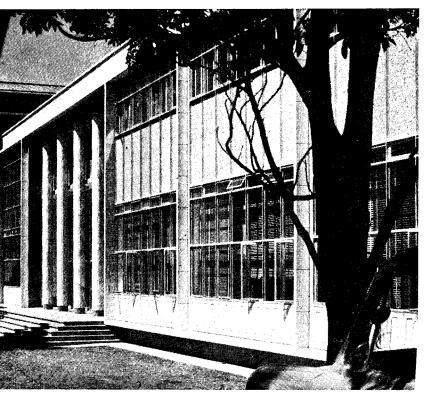
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PREFACE

The time-lag between delivering and printing this lecture has been greater than is normal; however, there have been advantages in this delay, for during the protracted interval I have had the opportunity of visiting some of the libraries in Europe to which I referred. Of greater interest, many magnificent new university libraries have opened in France, Germany and Great Britain, and their policies towards services to their readers and towards the mechanization of their administrations vindicate much that I advocated in this lecture.



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Main Library, University of Rhodesia.

THE RELEASE OF THE MUSES

I ORIGINS

In a study of the function of the academic library, specifically, the university library, the historical method is particularly suitable. For, according to the renowned English historian, Stephen Potter:

History is a gambit. More precisely the writing of history is a double or treble gambit. It is a way of saying 'I think' and 'what about this' in a tone which is supposed, simply by adding the word 'History' to silence argument.

It is also a way of saying 'Nothing surprises me because it's all happened before, if not more so.' It is a method therefore of making recent events seem a good deal less remarkable than people who have the temerity to write about recent events would lead us to suppose.

The development of the modern concept of librarianship in universities exemplifies this, and a review of the history of certain features of academic libraries will, I hope, show how it does so, and why the modern concept has arisen.

It is not easy to determine precisely when the first libraries existed, or where. It is evident, however, that there were libraries in the most ancient centres of our civilization; possibly the first were those of ancient Egypt. These were temple libraries, and the writings they contained were religious. legal, and ritualistic, relating to the function of the temple as the centre of the authority of the ruler, the place where the young were educated, and the place of worship. The only parallel with modern university libraries is the element of similarity with certain law libraries, and their function. Examples were the library of the Rameseum of Ramses III, and the one at Karnak; the latter lay under the protection of the God Thoth. Ramses III created a post of librarian, of considerable prestige, whose office supported the theocracy in its authority and instruction; it was a hereditary appointment. There was no lack of a science of librarianship, for round the walls of a library building at Edfu appears the inscription: 'List of cases containing the books on great rolls of skins.' Here we note the origins of the library catalogue.

A good deal more is known about the libraries of Babylon and Assyria. These collections consisted of clay tablets; quite different from the papyrus and skins of the Egyptian libraries. The libraries were not only catalogued, they were classified, and there were clay tablets dealing with the management of libraries. The oldest known Assyrian library was at Assur; there was another at Nineveh begun by Sargon and continued by Sennacherib.

There also occurred another aspect of library development which has been known in recent times; namely, acquisition by conquest, for the Assyrians ransacked the libraries of Babylon and acquired by this means hosts of clay tablets on grammar. language, literature, history, science, and religion. Sometimes, however, the tablets, having been copied, were returned to their original owners; this shows that the modern interloan practice is rooted in our most ancient history. The remains of nine large libraries have been discovered, some dating from the 16th Century BC. It is interesting to note that the keeper of the library was entitled 'Man of the written tablets.' a designation not very different from certain British institutions where the librarian is called 'Keeper of the Printed Books.'

There is thus abundant evidence of libraries in the ancient world. That they existed among the ancient Persians is stated in the Book of Esther, and the prophetic books of the Old Testament abound in allusion to rolls and scrolls in collections in the centres of power spiritual and temporal.

II GREECE AND ROME

In 5th Century Athens the modern concept of the uni-

versity library appeared. It soon disappeared. The significance of the Library of the Academy, and of the later one in the school of Aristotle, lay in the Greek concept of the nature and function of man, of which the philosophers tell us. The Greek tradition of enquiry, we are told, referred particularly to the individual personal relations of man to his physical environment, to his political life, to his intellectual and cultural circumstances, and to his Gods. The Greek, if we may summarize several centuries of philosophy in a few words, was concerned to develop the individual in terms of an ideal excellence. To achieve this involved an extensive process of enquiry, pursued in an institution no less concerned to achieve an ideal excellence --- the academic library.

It is recorded that in Athens (I cannot find what occurred in the other city states, but no doubt they were similar in this) literature was inexpensive, and that reading, although not an occupation of the masses, became widespread among the educated. There was a book-trade, according to Xenophon, at the time of the Peloponnesian War. To quote further sources for these assertions: that there was a gradually increasing desire to read among Athenians is described in the introduction to Plato's 'Phaedrus'; in Aristophanes' 'Frogs' there is a description of Euripides as a collector of books.

The first of a number of public libraries in Athens was established in 330 BC; its foundation derived from the proliferation of the drama. Athens became the centre of the Greek literary world, and the contents of its libraries included the definitive editions of the dramatic works. By the 3rd Century BC there were very many libraries in the Aegean and Near East, a result of the spread of Hellenistic culture: indeed Timaeus, the Sicilian historian, is alleged to have spent some fifty years engaged in research in them. The greatest were the Mousaion, at Alexandria, and the one at Pergamum founded by Eumenes II.

I have referred to the brevity of the existence of the

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academic library. There was a change in the intellectual current; whether this caused the Athenian concept of the academic library to disappear for 2000 years it would be presumptuous of me to say, but the Library at Alexandria reflected an age in which literature and philosophy were addressed to an audience of literary aesthetics and philosophers, detached from the world outside the library. This. according to one authority, is what Timon the Misanthrope meant when he called the Mousaion 'The bird-cage of the muses.'

Rome.

The Roman concept of libraries differed from the Greek. Magnificent structures with state support, they appear to have occupied fine buildings and to have been efficiently administered. Foreign policy had an influence upon their development, and they were often among the dividends of its success. Perhaps the most celebrated example was the prize gained by Sulla, who in the first Mithridatic War, 88 to 84 BC, captured the remains of Aristotle's library and returned with it to Rome. Installed in Sulla's palace, it came to have a considerable influence upon academic life and formed the nucleus of the first great public library in the city. Two libraries were founded by the Emperor Augustus; one was the Octavian Library in the Porticus Octaviae; the other. the Bibliotheca Palatina.

But the city's greatest library was the Bibliotheca Ulpiana, established by the Emperor Trajan. This library lay in proximity to the great law courts and consisted of two structures. one for Greek and one for Roman works. In the vast number of cities which fell within the administration of Rome, many great libraries were founded, such as the one at Antioch. The scholarly library is exemplified by that at Rhodes. The writings of the Greek and Roman dramatists, poets, and philosophers. the records of ancient civilizations. were assiduously collected and administered by scholar librarians. There were dissertations on the science of librarianship; for example, Varro, commissioned by Caesar to establish a public library, produced the work 'De Bibliothecis,' but this has been lost. Eventually the city of Rome possessed no fewer than twenty-eight public libraries, including the state libraries, and there were very many private collections.

What remains of the literature of Greek and Roman civilization is a mutilated extract, and the fate of the classical libraries is depressing in the extreme. Violent revolution, pillage, bigotry, fanaticism — thus was achieved their widespread destruction.

To-day, librarianship is often regarded as something new, sometimes given a sympathetic and interested consideration, but frequently seen as a foundling science, not always accorded recognition, and often disregarded in research and teaching. An examination of the literature of the science of education will reveal few references to the value of the library. Yet librarianship and libraries are among the most ancient of our academic or cultural institutions, significant in their part in giving to one age the written record of older cultures, in producing for one generation the efforts of its ancestors, in rendering to those about to embark on any worthwhile enterprise the experience of their predecessors.

But libraries are vulnerable. The Latin historian, Marcellinus, wrote (AD 378), "The libraries were closed forever like tombs." By the 5th Century AD the classical libraries had gone; many were closed with the triumph of Christianity, and destruction usually followed closure. In the Eastern Empire the Greek classical tradition was not so systematically extinguished but the Imperial Library at Constantinople was destroyed. The result of the salvaging of many private libraries for succeeding generations by nobles of the Theodosian epoch is that some part of the literature of the Greek and Roman cultures was saved for later civilization. From the destruction of the classical libraries to the appearance of the scholarly libraries of the Renaissance there are roughly one thousand years, which include the era of the spread of Christianity in Europe, numerous migrations, the growth of what is generally known as the feudal system, the Carolingian Renaissance, and the development of the mediaeval state. Some vernacular literature appeared, including much that was romantic, even mythical: the material of the scribe changed from manuscript to codex.

There were two possible locations for such libraries as existed; the castles of the warrior princes, and the ecclesiastic establishment -- monastery, cathedral, church, abbey. It is not recorded that the nobility were particularly given to scholarly or literary pursuits; all the evidence of the history of libraries shows the church as the main if not the only collector. The ecclesiastic libraries - in general, monastery libraries — are of interest in two wavs; firstly. they give rise to certain aspects of library use that are still to-day an element to be reckoned with in library administration; secondly, they show evidence of procedures, introduced in partial solution of certain inherent difficulties. which are to be found in the management of present-day libraries. There is yet a third feature of monastic libraries of current importance; I refer to their design, in which interest is still to be discovered in even the most recent of library planning.

To revert to the historical thread; it is claimed that the bias against classical culture was not as strong in the areas that had formerly belonged to the Eastern Empire; in the West, the bias had been effective in the destruction of many libraries. One of the earliest Eastern libraries of which there is an administrative record is attributed to the efforts of the appropriately named Theodore of Studium. who not only started building a library, but included in his regulations for the Monastery sections governing the scriptorium, the library, and the duties of the librarian. One of the earliest of the monastic collections in the West was founded by Cassiodorus, a servant of Theodoric, King of the Goths, in the 6th Century in the Monastery of Vivarium: this institution also served as a Christian academy, and the library constituted an essential part of the process of instruction. There is evidence that this relationship is becoming rather necessary in the modern institute of learning.

To-day, every university library has an exchange system: it sends off publications or other materials to other libraries, which send publications or other materials in return. Some librarians doubt the value of this element in acquisition, others, particularly those whose parent institutions publish, pay varying degrees of interest to it; most are prepared to exchange duplicates. All this is not very different in intention from one of the activities of the monastic libraries at present under consideration. In England were two libraries brought from Rome by Benedict Biscop, double abbot, apparently, of Wearmouth and Jarrow, in one of which Bede worked. Both libraries copied manuscripts extensively and exchanged them with other libraries; the exchanges were far-ranging, for Benedict Biscop is alleged to have crossed the Alps five times in his search for books to bring to England.

The Emperor Charlemagne, in contrast with earlier warrior nobility, encouraged actively the growth of collections of literature and established a library with scriptorium at his court. This precept was followed throughout the Frankish empire, and the libraries were to include not only the literature of the Christian era; works of Greek and Roman authors, when and where discoverable, were avidly collected. To the Court Library came Alcuin of York who subsequently established a library in his Abbey at Tours which served as an example for other abbeys and monasteries. The prevailing evaluation of the library was most encouraging and of interest to librarians to-day: "A monastery without a book-chest," Alcuin is alleged to have stated, "is like a castle without an armoury." There is revealed here something of the physical nature of the monastic library; they were at this time held in chests, for book-stocks were meagre; catalogues of the mediaeval libraries contained at most a few hundred entries, and the available literature — Christian writings, the surviving fragments of antiquity, the scholarly and the devotional works — could all be encompassed by a catalogue of this extent.

With regard to design; the change from roll to codex. from parchment to paper, produced no significant developments in plan or administration. Surviving drawings show a ground floor given over to the scriptorium, an upper floor devoted to chests for storing books, and tables to which other books were often chained. The scriptorium was eventually to disappear from the library, but it has returned in recent years in a different form, for every present-day university library has a photographic and printing department providing a support service which parallels the function of the mediaevil scriptorium.

Lending, and the resultant losses, was then as now a factor to be considered. The problem was countered by placing a curse on each book loaned; modern systems utilizing automatic eyes and applied electronics have not yet demonstrated any higher level of efficiency.

Examples of monastic libraries may still be seen; one. at St. Gallen, dates from A.D. 760, although the present building is of baroque design. This library was developed extensively during the Carolingian Renaissance, containing, in the 9th Century, works of the church fathers, of Bede, of Alcuin, the lives of the saints, the Bible, homilies, and treatises on medicine. The Abbey Library, Admont, began in the 11th Century. The rebuilding, in the 18th Century, typifies an approach to library design in which the collection was regarded as a subject of display within the unity of structural, pictorial and sculptured artistry. This library is interesting for its later condition; in the 15th Century it acquired collections of scientific and legal books, including the first class of publication produced commercially for an international market.

One feature of the monastic library, achieved then with-

out difficulty, has become the goal of the modern library designer; this is, to create a reading area where the individual may sit and study, and without being isolated enjoy privacy, seclusion, and immediate access to all the literature of interest to him. The partially enclosed carrell and the open access collection are features that the modern library will generally provide: these, together with a personal service to the reader, have to some extent replaced the cubicle and the simple device of placing all known books on two or three shelves.

IV UNIVERSITY LIBRARIES

We now turn to a consideration of the libraries of the Renaissance and Reformation without attempting to define the significance of these terms, for they appear to be subjects of dispute among historians. From the consideration of monastic libraries and their content it will be clear that the Renaissance was not the era of the rediscovery of classical literature, for Greek and Roman manuscripts were to be found in the monastic bookchests and in the court libraries. Moreover, mediaeval literature abounds in classical allusion.

Certain types of library appeared in the 15th and 16th Centuries which have a bearing on the development of the modern libraries, and it is in this context that the period has relevance here. There is also the question of the religious and political turbulence of the age and its conquests and military campaigns, all of which had to some extent an effect upon libraries; they were pillaged, transferred from catholic to protestant institutions - and returned in some cases, secularised and, of particular interest, in some instances used in the founding of university libraries. City collections were formed for the convenience of those burghers with a scholastic inclination; certain of the higher nobility turned to scholarship, and in the founding of libraries which they opened to other scholars established communities of scholarly fellowship and enquiry. There were some changes in library design; one of the princely libraries was to be housed in a structure created by Michelangelo which still may be seen, but it now has no books, only the chains that were used as security against theft.

Many great libraries were established in the 15th Century by princes; the growth of manuscript copying activity and the development of a book-trade, particularly in Florence and Venice, provided some impetus to noble scholarship which evinced great interest in the collection of manuscripts of Greek and Roman antiquity. The Biblioteca Mediceo Laurenziana at Florence was eventually placed in the room designed by Michelangelo in the monastery of San Lorenzo: the collection was started by Cosimo de Medici, was much used, and loans were freely allowed; by the third generation of family ownership it incorporated, according to Anthony Hobson, "the fruits of more than a century of Florentine humanistic initiative." It contained Carolingian and early Romanesque manuscripts, and numerous works of the Greek and Roman authors.

It is of importance in the historical context to observe the international nature both of the acquisitions and usage of the princely libraries. Literary men and philosophers crossed Europe to visit them; of particular interest was the journey of Humphrey. Duke of Gloucester, who enjoyed numerous contacts with the Italian courts and obtained from them manuscripts which were later to form part of collections donated by him to the Divinity School at the University of Oxford. Included were works by Dante, Petrarch and Boccacio, and Latin translations of Plato. Aristotle and Plutarch. This was not the first library to be placed in Oxford, but it represented an attempt to form a general university library.

France was to gain from the spoils of war: the Aragon Library at Naples was brought to Paris, the Sforza Library from Pavia; both were established at Blois by Louis XII. They were subsequently transferred by Francis I to Fontainebleau to form a court library in the fashion of the

Italians. Given the benefits of legal (and compulsory) deposit in 1537-8; this collection was to set a precedent in statutory acquisition which became common practice in roval libraries and their successors the state libraries. Francis I created the post 'Master of the Royal Library,' and to it appointed the humanist Guillaume Bude who thereafter took no interest in it. These were the origins of the Royal Library, which became the Bibliothèque Nationale --- the state library of France and the publisher of the national bibliography. To digress; the Library was brought back to Paris in 1564 and had several homes until 1724 when it was placed in the palace of the Duc de Nevers. Because of its title, 'Bibliothèque du Roi,' it was threatened with destruction during the Revolution but the revolutionaries, diverted from this purpose, added instead 100 000 books confiscated from the nobility. The material added from Napoleon's conquests outstripped even this; it may be noted that the cataloguing never seems to have overtaken intake since that date.

Of particular significance to libraries in the 15th Century was the invention of printing. A thriving book-trade developed in the German states and city libraries appeared, both deriving from the interest in reading among the merchant classes and their families. Martin Luther, it is recorded, exhorted the city fathers to establish and maintain libraries. Yet generally the birth of printing had initially but small effect upon the design and administration of libraries. The books in Italian court libraries were held on shelves in desks down each side of the room: monastic collections remained much as they had always been, in chests, with alcoves for their use. Since many of the earliest faculty collections were taken from monasteries. the first such libraries followed the monastic pattern; indeed, university collections were usually held in theological colleges for the concept of the general. central university library was not widespread.

It may be stated here that university libraries owe many of their difficulties to the period of the Renaissance and Reformation. One still, for example, encounters the view

that a collection of forty or fifty volumes represents the sum of the literature relevant to a particular sphere of intellectual enquiry, that no other user will ever require them, that the books may thus beneficially be removed to a distant cloister and never be made to reappear. University institutes and faculties have acquired their own libraries; in many German universities to-day the sum of these independent collections outstrips by far the stock of the main library, yet they are inaccessible and in many cases, irretrievably scattered, disorganized, damaged, and lost. The same situation does arise, though happily to a lesser extent, in English universities. Duke Humphrey's library at Oxford was not maintained because there were no central university funds: the colleges had libraries - they had funds. This lack was countered at the end of the 16th Century by Thomas Bodley at immense cost to himself: he was responsible for the initiating of the first truly general library at Oxford and he was moved to state that a man who interested himself in the building of a library should have: "Scholarly attainments, extensive funds, distinguished friends, and undisturbed leisure."

The fragmenting of university collections has certainly been among the greatest defects in university administration since the 15th Century; this has become evident quite recently in two very interesting ways. Firstly, it is apparent that despite the existence of scattered and independent faculty or institute collections, the central libraries in universities where this has occurred are showing more intensive usage in both the teaching and research contexts, and particularly by the members of those faculties that possess such collections. There are two riders; the faculty collections were never run by specialized or qualified staff, with the result that the recent rate of growth of publishing and acquisition caused their collapse; also, the central libraries showing this trend were efficiently administered, and their retrieval services were good. By implication the expenditure on faculty collections has been largely wasted. Secondly; the newest German university library, at Constance, will receive all university funds designated for the

purchase of books, and this is to be the policy at the new universities of Bielefeld, Bochum, and Regensburg.

The English university library has in recent years attempted to counter this process of fragmentation by establishing a limited number of branch libraries. To some extent it has been a successful policy, and of particular interest now is the examination of methods of designing library services to the requirements of the different subject-areas of the university while yet retaining a unitary structure.

To revert to our historical thread; of some importance was the eventual disappearance of mediaeval libraries, for decline and destruction, resulting from religious wars and wars caused by peasants, effected their widespread dispersal. However, university libraries benefited from the transfer to them of collections taken from monasteries. Protestant universities that gained in this way were Königsberg, Helmstedt, Jena, and Marburg. A period of general catastrophy and decay came with the Thirty Years' War. libraries being transferred by both Catholic and Protestant armies; thus, the Palatine Library at Heidelburg went to the Vatican; collections from Silesia, Bohemia, Moravia, found their way to Sweden, and were used in the initial development of the Library of the University of Uppsala. The Bodleian also derived acquisitions from the efforts of Gustav Adolphus, for he removed from Würzburg Cathedral numerous manuscripts which he later gave to Archbishop Laud, who in turn gave them to the Library.

It should be observed that despite the monastic influence. the central university libraries, as opposed to the faculty collections. were rarely mediaeval in concept. By the end of the 17th Century the development of printing presses and the increased production of books achieved the effect that, however unsatisfactory the process of acquisition, their steady growth was assured from decade to decade. Posts of librarian appeared in universities: Bodley insisted that the Librarian of the Bodleian should not marry, deeming the state of wedlock to be inconsistent with the necessary singleness of purpose and mind required of the Librarian. Subsequently, the man that he appointed to this position was allowed to marry, but Bodley never ceased thereafter to criticise his cataloguing. To-day, 90 per cent. of professional librarians marry although the historical significance of this apparent fact is not examined in this study.

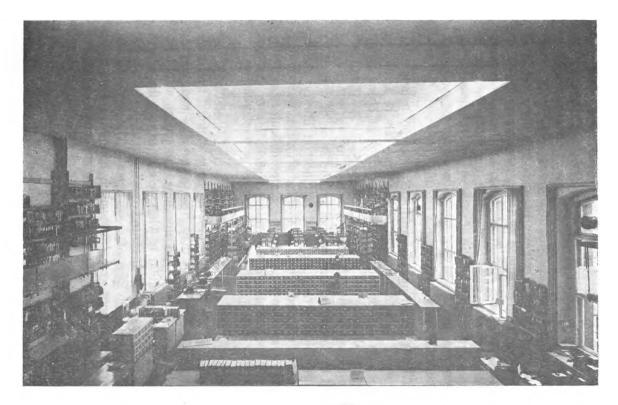
V THE ENLIGHTENMENT

Having revealed the origins of the university library and of certain aspects of its policy, I cannot within the scope of this lecture proceed to an examination of the spread of libraries during the succeeding four centuries, although the study of library history from the 17th Century to the present day, in the context of their greatest period of growth and diversity, is a productive endeavour because libraries reflect so vividly the history of their countries.

The 17th and 18th Centuries include much that is remarkable in the establishment of libraries, and I would refer particularly to their diversity; there were inaugurated special commercial libraries, such as the one in Hamburg in 1735, libraries of learned societies, large scholarly libraries such as those in Vienna. Berlin, and St. Petersburg, and lending libraries including those in fashionable resorts which became such an important feature of English social life.

Of more direct relevance to our theme is the emergence of certain elements of library science. One of these was the fugitive sub-science of classification; another, the theory of library financing; another, the professional education of the librarian.

The library of Cardinal Mazarin, for example, was placed under the direction of one Gabriel Naude, who had studied much of Thomas Bodley's specification of the role of the



Author Catalogue, University of Gottingen Main Library.

librarian. Naude's treatise, Avis pour Dresser une Bibliotheque, relates to the structure and development of the collections of a large general library. Among other principles, he insisted upon the value of a classification system intelligible to the public, one moreover which should follow a logical and natural order of subjects. Nothing has been more impossible to achieve; however, the beguiling study of classification occupied the greatest among the minds which, during the age of enlightenment, were to concern themselves with such concepts as the finite universe of knowledge, the philosophy of science, and other intangibles. These predilections gave rise to a desire for the systematic organization of knowledge.

To this period must be attributed attempts to relate the theory of knowledge to the physical problem of arranging books on shelves and to the construction of classification systems showing all the sub-divisions of an existing state of knowledge. By allocating a symbol to each sub-division and by inscribing this symbol on the spine of a book, a philisophical arrangement of volumes on library shelves would be effected. Opposed to these principles was another view, if anything leading to greater difficulties; to summarize, books should be arranged according to the consensus of their usage.

With regard further to library usage, there were developed in the 18th Century the large national and state libraries, and these, as they grew, allowed to their shelves all 'men of culture.' At this time, the reader would encounter features similar to what we now expect; there were wall shelves, galleries, central reading and display areas, and a subject division of some extent. The volumes and their arrangement were, however, much more a part of the design than is possible to-day for many obvious reasons. but chiefly because of the slower rate of expansion of book collections in those days.

In the 18th Century there occurred in Germany a phenomenon that was to establish a model upon which most university librarians might with advantage have based their

policies. It derived from the theories of G. B. Leibniz, who had known the Royal Library in Paris and its spectacular development under the enlightened protection of Colbert. He became successively the administrator of two court libraries. Hanover and Wolfenbüttel: he considered the nature of libraries and mused upon the philosophy of their existence and function, concluding that the library is similar to a gathering of the greatest men of all ages and nations communicating to us their most select thoughts. This, of course, implies that the process of book-selection achieves the acquisition of the most select thoughts available in literature, for it cannot be implied that all literature consists of select thoughts. Leibniz also asserted that the scholarly library should fulfil, for state and society, functions that had formerly been provided by church and school. This assertion may have been valid then; to-day it would be difficult to maintain in the hazy light of present definitions of the functions of church and school. Leibniz laid great emphasis on the regular acquisition of new books and continuations, and on the need for adequate vearly appropriations. Hessel says of him:

It was his belief that true advance of knowledge was possible only when each individual scholar could quickly and conveniently run over the sum total of previous accomplishments.

This is the rationale of the modern information retrieval and reference service.

The finest example of an 18th Century university to be designed and operated in accordance with these principles was Gottingen. The creator of the Gottingen Library was Baron von Münchhausen, whose first task, completed with some success, was to obtain funds, for which he appealed to the nobility. According to the account now current among the staff of the Library, his success derived to some extent from his representing the University as a riding school, and the Library as some special type of stable. A picture of this great man hangs over the main staircase in the Library.

The Gottingen Library is styled 'Niedersachsische

Staats- und Universitatsbibliothek,' but it is not a state library: the implication of the first two adjectives is its availability to scholars in the region. C. G. Heyne was one of its more prominent librarians, and under his direction it became the foremost academic library in Europe; the development of the collections derived from close co-operation between librarian and professorial staff. What is significant of this Library is the enthusiastic interest displayed in it by the professors, which moves one to wonder whether other university libraries might not have gained support among academics had their interest been invited. Heyne's system of consonance between catalogue. classification, and arrangement of books resembles in principle the systems recognizable in open access libraries to-day, although the classification scheme pertained to the 'practical' rather than to the 'rational' school. To-day, Gottingen is a great library which has over the years grown immensely, and in 1970 proposals were being considered for the incorporation of certain of the hitherto independent institute libraries. Appropriate to the concept of the university library. Gottingen has maintained its historic function as a reference library available to scholars beyond the confines of the university; it is, indeed, conveniently situated in the centre of the city. At the end of the 18th Century its fame was widespread and was praised by, among others, Goethe, Humboldt, and Herder: according to Hessel, mean and envious people were to say that the renown of the Gottingen professors derived solely from their university library.

VI THE NATURE OF LIBRARY SCIENCE

It is not possible here to survey all the varied manifestations of library growth during the 19th Century; I shall therefore allude to only a few factors of interest to this enquiry.

The greatest impact on library development came from the widespread expansion of printing and particularly, in our context, of academic publishing. National scientific societies, research bodies, museums, universities, learned institutions; all turned to the publication of proceedings and transactions. Reviewing journals made their appearance, both those that surveyed developments in a given field and those that made an evaluative and speculative contribution. Scientific periodicals were published in ever increasing diversity and the technical monograph appeared commercially. All this is quite apart from the growth of humanistic studies and their concomitant advance in publication.

In the English speaking world certainly, the outcome was an increase in the types and size of learned library, in technical college, scientific institute, and university. Another interesting development was the growth of public libraries many of which, in the larger cities, established reference libraries usually general in coverage, although some had a subject-specialized basis.

There was also an advancement in the concept of librarianship, for, after long years of contemplation and widespread co-operation, a body of professional knowledge was accumulated into various types of structure for the professional education of the librarian, but not all the aspects of library science that were translated into effective administration were to improve the public use of the library, or to represent the library adequately to the expanding scholastic and technological endeavour. I refer to a few of the setbacks; firstly, the larger libraries were constructed on a closed-access principle, with books separated from the readers: secondly, classification as a means of assisting public usage of the library fell into disuse. and its true function disappeared; thirdly, the arteries of administration hardened particularly towards the end of the century, and in some respects this malady has remained with librarianship ever since.

What was demanded, because of the immense growth in publication, was a corresponding energy in library services to research and learning, the indexing of available resources, and rapid systems of communication between libraries. Guidance to the literature stored in the libraries should have been the primary effort and concern of all in the profession: in this to some extent the efforts of the librarian failed, and the failure was from time to time revealed in the opinions held of libraries and their effectiveness by those who used them.

The problem remained unresolved in the early 20th Century; it appeared in the following way: librarians became entranced with the concept of a totality of knowledge which might, with the application of certain rules of division, be represented by a classification system in which there would appear a symbol for every subject. Classification consisted of applying the system to a book, giving it an appropriate symbol, and placing it upon the shelves. The catalogues were a means of recording all these books. by author, and by subject. To give order and plan to the subject arrangement, lists, representing every known subject, formed the basis of the subject-catalogue. You chose a term from the list, put it at the head of the catalogue entry, and there you were, with author and subject approach neatly tied up. There was an acquisitions department which allocated a number to every item acquired; there was a reference librarian who stamped books and helped you (sometimes) to use the catalogue. In the closed access library he received enquiries and sent request-slips into the stack-rooms. In some libraries even now, the reader will wait a day before the book, if it is on the shelves, is delivered. The principles of library design desired that every user should be under the eye of a librarian, and one result was the construction of large round reading rooms with the service-point at the hub, and the reading desks representing the spokes, of a gigantic wheel. In open access libraries the shelves often fanned out from the librarian's desk so as to enable him to look along the files of books and their readers at any given time.

Library administration, and professional education in librarianship, consisted largely of a predilection with all these things. These, if you questioned him, you would have found to be the librarian's main interests, nor did he cease from the study of methods of refining them. I cannot say briefly where they conflicted with the interests of those who used the library, but within the profession there has grown an awareness of a generally defective communication between the administration of libraries and the requirements of their readers.

However, having offered this criticism, I must add that the efforts of librarians in the past 100 years have resulted in the preservation of many enormous collections of books. fully documented, secure, and available to scholarship. They have also resulted in a vast range of bibliography upon which scholarship depends, and which provides the materials for a great part of current research. Without denying this legacy, a different approach to the function of the library has of necessity been adopted by the present generation of professional librarians, who have encountered a rate of growth in publishing, an expansion of public use, and costs increasing at a rate entirely without precedent. Moreover, library services are to-day constantly subjected to evaluative analysis, in which library staff are themselves deeply interested, perforce.

The academic and professional qualification of the librarian is not demanded for any limited vocation such as the prospect of a devotion to the traditional routines of the library as a repository, they are demanded because of the need to render professional assistance to the library user. to communicate effectively with him or at the very least understand his approach to his subject; for without apprehending the user's needs, reference assistance will be limited in its effect. The academic and professional qualification of the librarian is also demanded because of the emergence of expanded responsibilities for the efficient use of staff and control of finance, and for the proper control and organizing of what I have termed 'support services'. All this has persuaded me of the conclusion, now so generally accepted as to be platitudinous, that the librarian's professional calling places him within the academic work of the

university and that the preparation for his career should fit him for this work. Without proceeding to detail in this lecture, I would suggest that a somewhat wider scope should be introduced into the syllabus structure of the Library Schools, which ought in addition to giving instruction in a sound academic discipline, in the general history of science, and in aspects of the traditional syllabus and information retrieval, teach linguistics, epistemology, research methods, systems analysis, computer management, and some practical business administration. The period required for the professional education of a librarian, should, together with a limited internship, amount to six years.

VII THE MUSES RELEASED

This outline has demonstrated that libraries are ancient in origin, that they have in some periods enjoyed state support and the prestige that follows from their association with education, ritual, religion, law and the functions of state; also that they contain the written record of past human endeavour -- vital to any further endeavour, and that where the intellectual climate of the age has permitted or encouraged academic enquiry they have provided the sources upon which such enquiry has largely depended. From the earliest times they have been involved in the widening of access to literature by means of exchanges, copying, and the publishing of bibliographical data, and they have invariably extended the resources of the institutions to which they belong to the community of scholarship. History demonstrates two general aspects of the significance of libraries; that they are valuable, otherwise they would not have been worth pillaging and transporting from one end of Europe to the other, and that they are particularly vulnerable in time of war and political upheaval, their destruction resulting in the most calamitous loss to civilization.

A library has an intended purpose within the constitution responsible for its creation, but it appears that in its very nature, once it exists, it is endowed with a significance lying beyond this apparent purpose, even where its efforts extend farther than the confines of its parent institution. For whatever historic contribution to civilization may be made in any part of a university, whether it be an advancement in science or technology or the growth of philosophy or an ethic, that contribution will stand in the library, and rendering immediate access to it will constitute the foremost aim or principle of the library's policy.

Again, the historical conspectus shows that at various times there has been expansion in the production of items that are held in libraries; in the western world since the Renaissance the initial impetus to this process came with the invention of printing. In ages succeeding the volume has increased, but the present rate of expansion is entirely without precedent and in no way measurable or predictable by reference to any of the omens, signs or formulae of the past, neither is the rate of increase in costs of publication measurable or predictable by reference to any of these. Further, because of the expansion in teaching and research - I do not need to describe here the growth of universities and other institutes of higher education since 1960, nor the projected extensions to 1980 — the demands upon libraries are also without precedent. In a university library these demands will occur regardless of the existence of departmental libraries; this is a clearly observable phenomenon and constitutes the principal refutation of any proposal for the development of independent collections. The reader services of the university library are its paramount concern; from this every principle of the policy of the Library of the University of Rhodesia derives. and to it is referred each end, to paraphrase the poet. The more personal and particular the service, the better.

The range of facilities available to the public must be consistent with the Reference Librarian's efforts, and rapid systems of inter-library communication are a necessity. In this context I would cite the introduction of telex in interloan and reference services throughout South African university libraries.

It follows that the other work of the modern university library — the traditional aspects of librarianship such as circulation control, cataloguing, classification, accessions records, periodicals administration, special collections administration, exchanges, and so on --- is to be regarded as supporting the reader services. Its consistency and routine activity are effected by a staffing allocation consonant with its utility, and systems analysis is encouraged; this policy may lead to a degree of mechanization. Such an approach is necessary because staff costs have risen to the extent that all support services must be made as fast, effective and economic as possible, and because it is required to channel as much as possible of the library's total expenditure and to deploy by far the greater proportion of its resources in staffing to the direct assistance of the library's users.

To revert to the description of functions; I have advocated a principle of policy for the modern academic library. to which the Library of the University of Rhodesia strongly adheres. However, this Library has a certain individuality; it is the only university library in the country, and thus it has obvious responsibilities and duties to research, the professions, and to scholarship generally outside the University. It contributes towards information services in industry, it is used directly by members of the medical profession. and by law, botany, zoology, agriculture, chemistry, engineering, education, and many other facets of the country's work. While acknowledging these responsibilities and indeed expressing the wish that they might increase, the University Library ought not to be seen as an alternative to the national library network that Rhodesia lacks: it is not a national lending library;* the lending function is intended primarily to assist students at the University, and their teachers. The University Library should be regarded as complementing a network of public libraries, and a national lending service one of whose functions, I would

* NOTE. However, the Library's participation in interloan systems is of immense benefit to the University, and to other libraries. suggest, is to assist in the provision of recommended books for certain courses in adult education, specifically in the field of external teaching. Another deficiency in Rhodesia is the lack of an education library service to improve the condition of libraries in schools and provide reading for pupils and their teachers; the University Library does not obviate this need. Neither is it in a position to provide all the technical material necessary to industry; small collections in the factories should filter the immediate technical requests.

It is no exaggeration to say that the resources of the University Library have become vital to the country's development. The Main Library and its specialist satellites will certainly participate to an increasing extent in the academic work of the University, and in research, professional, and industrial activity outside the University; it will be required to do so -- this is already evident. Our reader services present a means of exploiting the resources of all the large libraries of Southern Africa and many of the great libraries of Europe: it is anticipated that electronic devices of astonishing capability will be installed and that in the course of time they will offer new concepts in library usage, particularly in widening our access to the collections of other nations and continents. The Muses may eventually be recalled by means of communications satellites.

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