

Libraries in Major Universities in Lebanon

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This paper puts the contemporary situation of some Lebanese university libraries in a broader context. It introduces the country and outlines its higher education system, library science education, professional association and publishing activity. It reviews the varying situations in the libraries of three universities – the American University of Beirut, the Beirut Arab University and the Lebanese University – and contrasts them with other university libraries in the Arab world. It adds to the body of published knowledge about the current situation with respect to management, staffing, buildings, automation, information retrieval, bibliographic

records, online and CD databases, and document delivery. The limited published information was supplemented by interviews with a number of staff to elicit their views on the current situation and a survey of students' experiences of using the libraries. With the exception of the American University of Beirut, the libraries' facilities and services are not comparable to best practice in other Arab countries or the western world. This work highlighted some of the difficulties encountered by the libraries and their users, perhaps not entirely the result of the civil war, but indicates that plans are in place to take the libraries to the next step of development.

Introduction

Despite damage from bombing, severe inflation, and staff shortages, many libraries functioned throughout the civil war (1975–1991) in Lebanon (Vernon 1994). Relatively little has been published on the impact of the conflict and on post-war efforts to rebuild the academic libraries since peace returned to the country. This small study, based in part on fieldwork undertaken in 1998/99, aimed to overcome some aspects of the lack of contemporary information. The primary objectives were to investigate the current role and services provided by academic libraries in Lebanon, to contrast this with other academic libraries in the Arab World, and to identify any problems hindering their re-development.

The study focused on three universities only, all situated in the Lebanese capital Beirut:

- The American University of Beirut (AUB 2001)
- The Beirut Arab University (BAU 2001)
- The Lebanese University (LU 2001)

These universities were selected because the first two represent the private sector of higher education in the country and have played a substantial role not only in Lebanon but also in the wider region, whilst the third is the state provider of higher education. Also, AUB has had strong associations with the western world, while the other private sector institution, BAU, relates more to the Arab world.

A search for relevant information was carried out in libraries in the U.K. and in libraries and bookshops in Lebanon, as well as on relevant Web sites. Face-to-face interviews were conducted with a limited number of library staff at different levels, preceded by a preliminary meeting with the

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libraries' senior managers. Interviews were conducted with five staff from the libraries of the American University of Beirut, one member of the staff of Beirut Arab University Library, and two staff from the Lebanese University Library. The interviews were structured around the main areas of library management and development, with an informal approach that encouraged staff to talk openly and frankly. Given the differences among the staff interviewed, in their qualifications and experience as well as in their numbers, the information gathered varied in quantity and quality, but has been used, cautiously and where appropriate, to supplement the published information.

A questionnaire was also used to evaluate the libraries from the point of view of a small number of students who were in the final year of their studies. This group of students was chosen because they should have had some years of experience in using the libraries and might be expected to be using them for their final year projects. The questionnaire used a combination of open-ended and closed questions, and was deliberately kept short, clear and to the point so that the students would not feel under strain. It was accompanied by a cover letter briefly explaining the research objectives, and was in Arabic and English to give the opportunity to students to choose the language with which they were most familiar.

Lebanon – a brief introduction

Lebanon has a total area of 10,453 sq. km. and a population of about four million, of whom an estimated 1.5 million live in the capital Beirut. The country lives, as it has lived for 6,000 or 7,000 years, mainly on its strategic location on the eastern shores of the Mediterranean, which made it the crossroads between east and west and a major banking and trade centre in the region.

In 1861 the Turkish Ottoman regime agreed to the establishment of Greater Lebanon as a semi-autonomous province within its empire. During the First World War the British fostered Arab nationalism in the Middle East to secure support against the Turks, and Arab forces aided the British and French in expelling the Turks from the region. In 1923 the League of Nations agreed that the Turkish Empire should be broken up, and that its Arab inhabitants should rule the region. Syria and Lebanon were initially placed

under French 'mandate'. Lebanon's independence from the French mandate was finally achieved in 1946. Since then the country has been ruled by a parliamentary system within a multicultural, liberal environment. Lebanese are largely Arabs with a multi-religious population, about 70% Muslims and 30% Christians. Arabic is the official language. Freedom of speech, trade and political belonging are protected (Bukhalid 1998).

Throughout the 1970s and 1980s Lebanon was dominated by a chronic political instability, related to upheavals in the wider region. As a result of these wars, the capital was wrecked and the country's important position in the financial and services sectors, including publishing and bookselling, was destroyed (Francis 1995, 39). Lebanon has since had difficulties in funding its post-war reconstruction programme. The intention is to restore GDP capacity to 1974 levels by 2002. Libraries, however, are not on the list of government priorities.

Higher education in Lebanon

State education in Lebanon is free, but not compulsory. Nonetheless, enrolment in schools is estimated at over 92%, and Lebanese are highly educated. Some 88% of adult males and 73% of women were estimated in 1990 to be literate (Francis 1995, 39).

Higher education is currently provided by eight universities, five of them located in the capital Beirut. There is only one public university, the Lebanese University (LU), maintained by the Lebanese government and offering free tuition. The others, all in the private sector, are The American University of Beirut (AUB), Beirut Arab University (BAU), The Lebanese American University, and the Jesuit University. In addition there are Balamand University in Tripoli, and Notre Dame University and Saint Esprit University in Jounieh. The languages of instruction in these universities are Arabic, French and English, except in the Jesuit University and Saint Esprit University where only Arabic and French are used.

Library science education in Lebanon

Locally trained librarians in the Arab World have been relatively few. Even large countries such as Syria, Iraq and Egypt have few professionally

educated senior librarians (Francis 1993, 105). In an attempt to solve the shortage of qualified librarians, library education programmes have been developed in most countries since 1945. Provision of training for archivists and documentalists remains varied, and there has been a shortage of relevant textbooks in Arabic in all the information sub-disciplines (Ahmed 1988). Nonetheless, the demand for qualified personnel is such that, even in the wealthy countries, despite additional scholarship programmes for training overseas, the library workforce still includes a large proportion of expatriates (Siddiqui 1996).

The Lebanese American University has offered regular courses in library studies since it introduced a two-year library technician programme in 1970 (Kent 1975). The course was later developed to BA degree level by adding a third year to it. According to Naaman (1994), the course adopted the curriculum and methodology followed by universities in the United States of America. Currently, however, the course is offered only as a two-year Associate degree (AA) (LAU 2001). In 1972, the Young Women's Christian Association also started a two-year technical diploma course, but the programme stopped during the war because of lack of students (Hafez 1986a, 372). In 1976, LU became the first institution in Lebanon to offer a four-year undergraduate degree programme in Library and Information Sciences in the Faculty of Information and Documentation (LU 2001b). This course now leads to a French style 'Licence'. The Faculty also offers the DEA (Diplôme d'Études Approfondies), a qualification granted after one year of 'in-depth' studies and initiation to research following the 'Licence' and the 'Maitrise'. It constitutes the necessary stage before registering for doctoral research. However, the Faculty's strong portfolio appears to largely comprise courses in media and communication studies, and it is not clear in what fields it is able to offer the DEA. Outside Beirut, the Faculty of Arts and Social Sciences at Balamand University now also offers a Bachelor's degree (BA) in library science (University of Balamand 2001).

Local librarians have always considered both the courses in Beirut to be weak, with traditional curricula, part-time staff, and small numbers of students. For example, in a study of the needs of

training of professionals in library and information science, Hafez (Director of the Learning Resources Centre at the then Beirut University College) stated that graduates of the LU librarianship programme were weak educationally and professionally, could not operate independently, and had serious language deficiencies (Hafez 1986a).

The Lebanese Library Association

For many years, the absence of formal and visible library associations in many Arab countries deprived the library profession of the positive image that could attract individuals to the profession, and made communication and networking among librarians almost non-existent (Aman 1994). To try to overcome such problems, the Lebanese Library Association was founded in 1960, with the aims of organising, developing and promoting libraries and the library profession in Lebanon. The Association had, at one time, up to 100 members. It was based for some time in the National Library; then moved to the Library of the American University of Beirut (Francis 1993, 66). Despite limited financial resources, the Association continues to play an active professional role, and publishes a journal, albeit somewhat irregularly. It approved the library science programme taught at LU, and held several training courses and book exhibits. As well as providing technical advice and expertise to many institutions, it has been active in creating library awareness among the general public (Libraries 1993).

The book trade in Lebanon

The ancient seaport of Byblos (modern Jubayl) was famous in ancient times for the export of papyrus, thus probably achieving a lasting place in professional terminology for the first syllable of its name (bibl-). Most of the oldest examples of the earliest known non-pictorial alphabet, Phoenician, dated from the fifteenth century BC, have been found in archaeological excavations in the port.

Before the civil war, Lebanon had had a long tradition in printing and media. Printing presses were not introduced in the Arab world until some 200 years after they began to be used in Europe, and did not become widely available until

the nineteenth century. The existence of modern printing presses and book distribution companies gave Beirut a leading role, and Lebanese publishers occupied a dominant position in the Arab World (Francis 1995, 40). For example, there was no journal indexing service for Arabic language periodicals until 1981 when the Lebanese service, Al-Fihrist, was launched. By 1987 it was indexing 216 periodicals from 21 countries (including 5 non-Arabic speaking) (Nazim Ali 1987).

Before the war about 700 printing companies and 300 publishing houses operated from Lebanon to serve the local market and other Arab countries. Lebanon still retains an important, albeit reduced position in book publishing and distribution, but the publishing industry will have to work very hard to regain its former importance (Hafez 1986, 331). According to Francis, by 1995 Lebanon had only 96 publishers (Francis 1995).

Many journals discontinue publication because of financial pressures, while others are almost totally dependent on institutional (academic) funds. Barriers such as editorial hegemony, national and political instability, and institutional discouragement hinder the submission of scholarly work to indigenous Arab journals. Electronic publishing has not appealed to the scholarly community in the Arab and Middle Eastern society and remains in a dormant state in Lebanon (Nasser and Abouchedid 2001).

Legal deposit legislation exists in Lebanon, but the National Library responsible for applying it is largely inoperative. There is no functioning national bibliographic agency or systems for the allocation of ISBNs or ISSNs. However, Lebanon is a signatory to the Berne Copyright Convention and has also introduced relevant legislation (Francis 1993, 103).

The problems faced by libraries in acquiring publications have long been recognised in the Arab world (Calvin 1976). Publishers and booksellers in Lebanon still have relatively few limitations on their freedom to publish and import books and periodicals. However, a recent report identified several problems that face Lebanese academic libraries in acquiring externally published books and journals, such as mail services being interrupted as well as censorship of printed media. Publications received or sent out are randomly filtered by the authorities, a

feature of professional life not uncommon in Arab countries (Gardner 1989). However, when it comes to electronic resources and the Internet, each institution simply applies self-censorship (IFLA 1999).

University libraries' development in the Arab world

The "Arab World" comprises 21 countries sharing culture, history, customs and tradition with Arabic as the common language and Islam as the predominant religion. The Arab world has a long tradition of libraries, coupled with a respect for the book as the purveyor of the holy word. The mosque was the centre of religious and educational life in Islamic countries, and libraries that belonged to mosques therefore flourished and prospered (Al-Shorbaji 1994). Lebanon and its neighbours are unusual, with populations comprising many religious denominations.

Although all countries in the Arab World place great emphasis on education, Jordan and Lebanon have the highest rates of adult literacy. The oldest universities are to be found in Egypt: Al Azhar University was founded more than one thousand years ago (El-Arini 1989), and Cairo University in 1908 (Macmillen 1994). Today, all Arab countries have institutions of higher education, although the number and size varies from country to country. The development of academic libraries in the Arab World shows similar variations.

A review of a number of university libraries in Arab countries including Lebanon concluded that the situation of library services in most countries in the early 1980s was not encouraging as they lacked many features that hindered their effective performance (Dyab 1983). Some Arab universities now have modern libraries, but there are many university libraries still providing outmoded forms of service. They differ in management and organisation, but most have a central library. Kuwait University, for example, adopted a centralised approach in 1987 to enable the university libraries to reduce duplication of books and journal titles, to strengthen collections, to improve service programmes, and to utilise library staff more effectively (Zehery 1997).

Funding appears the principal factor in determining the rate of development. The annual

income of countries in the Arab World varies widely. In petroleum-rich countries, for example, the average GDP per capita is US\$100,000, while in non-petroleum countries the average is only US\$1,000 (Khalifa 1997). The rich states are able to acquire the professional staff and resources to enable them to adopt new methods, although fluctuations in the price of oil can affect the funds available for libraries, while the poor states are unable to make the necessary investment (Francis 1993, 97).

Academic libraries in Lebanon

The famous Lebanese archaeological sites, Baalbek, Tyre and Sidon, show signs of libraries existing during the classical period. During the monastic period, almost every monastery in Lebanon had a library, the best-known being the Salvatorian monastery at Khonshara founded in 1690 and the Holy Saviour founded in 1711 near Sidon. The activities of European missionaries and scholars also contributed to the establishment of a number of libraries in the Middle East in the nineteenth century (Khoury 1972).

Modern librarianship in Lebanon started in the nineteenth century with the establishment of libraries serving new academic institutions. The libraries' structure and emphases tend to depend on the national origins of their foundation. In the Anglo-American mould, there are AUB, which was established in 1866 (as the Syrian Protestant College), and the Lebanese American University, founded in 1924 as Beirut College for Women and more recently known as Beirut University College. Following the Arab pattern, there is BAU founded in 1960, affiliated with the University of Alexandria. As well as others following these patterns, there are also institutions based on the French academic model.

AUB is a private institution, functioning under a charter from the State of New York and administered by an autonomous Board of Trustees. The Central Library, the AUB Jafet Memorial Library, was established in 1925. During the 1950s and 1960s the University Librarian, Francis Kent (a British citizen who had previously worked at the United Nations Library) was one of the leading figures in library development in the Arab World. The other university libraries consist of the Saab Memorial Medical Library (AUB-SMML),

established during the academic year 1873–1874, the Engineering Library established in 1953, and the Science and Agricultural Library established in 1962. The medical library is not part of the Central Library system but is responsible to the Medical School (AUB 2001c). The library serves the wider medical community in Lebanon as well as the Medical School. It has been designed as a national focal point for medical information by the World Health Organisation in recognition of its strength and of the absence of a national medical library. A committee of trustees manages the AUB-SMML on behalf of the university.

BAU was established in 1960 in the heyday of Pan-Arabism, with close administrative and academic ties with the University of Alexandria in Egypt. Its four libraries hold collections mainly in Arabic.

LU was founded in 1953 and, as the only state university, has a huge enrolment of students. It was split by factional disputes within the government, and as a result of the civil war it was forced to open branches in several districts. Because of this decentralisation, there is not one single campus that encompasses all the university faculties (Hafez 1986a, 340), and each of the various faculties and schools of the university theoretically has two sections. Inevitably, this has led to further divisions in library units and an increase in staffing which may not have been justified had there been a central campus or a localisation of faculties in one area. Each of the library's numerous branches is almost autonomous, resulting in duplication and a diminished range in the collections and semi-paralysis of activity (Libraries 1993, 9). The LU libraries' managers and representatives of different faculties and departments are, however, working on a project to join together all library branches and unite them under the direction of the central library.

Before the war there was a total of 37 academic libraries, but they employed only 15 professional staff (Francis 1993, 65). The conflict had a profound effect on the universities, on staff, students and the libraries (Fustukjian 1984). The war divided the country along sectarian lines. Cities and towns were often cut off from each other. These events have left more, but scattered academic libraries. As a consequence, LU, the Lebanese American University, and Notre Dame University opened temporary branches in the re-

gions in order to accommodate students who could not safely cross the demarcation line (Kreidieh 1996, 2–3). This situation caused an added burden for these universities who then had to make their library services available on these sites. Some libraries were destroyed, burned, or looted; the others were affected by migration of personnel, whilst frozen or reduced budgets, inflation, and the devaluation of the local currency contributed to a loss of purchasing power. Advances in library services were limited to a minimum in the majority of the surviving institutions, leaving a lamentable situation by the mid-1980s (Hafez 1986b).

In 1993, the Lebanese Library Association, supported by the UNESCO, carried out a comprehensive survey in order to show the basic features of libraries and documentation centres in Lebanon, and to have dependable data as the basis for a development plan. A directory, published by the Association in 1995 with a subsidy from the Ministry of Culture and Higher Education, reveals the existence of 74 academic libraries. Of these, 49 were attached to the three universities on which this study is focused, but they were mostly small branch libraries and together held only about a third of the 3.7 million books collectively available in all the country's university libraries (Directory 1995). In addition, these libraries partially play the role of public libraries, by providing services to a large public of researchers and readers outside the university (Libraries 1993, 8).

Recognition of the need to address the accumulated problems of Lebanon's university libraries underlay the funding of a further survey by the Italian Trust Fund (ITF) and the World Bank (Naaman 1996).

Staff

Surprisingly little has been written about the issue of staffing in libraries in the Arab World. Aman noted as recently as 1994 that the heads of major libraries in most of the Arab countries were individuals with no formal education in library and information science (Aman 1994). The few exceptions could be found in the Gulf States where properly trained librarians had been employed, principally professionals educated in or recruited from the United States of America and the United Kingdom. To offset the shortage of

qualified personnel, some libraries in the Arab countries have implemented in-house continuing education programmes to upgrade the competencies of the staff (Chaudhry *et al.* 1993). The need for such an approach to staff development was noted in a small research study carried out in the area of Human Resource Management with particular emphasis on procedures at the Lebanese American University Library (Kreidieh 1996, 2–3).

The AUB chief librarian and many of the senior staff had been Americans, but they left during the civil war and were replaced by local staff (Francis 1995, 40). The AUB Jafet Library now employs 10 professional librarians and 60 support staff assisted by 40 students working an average of 50 hours per month. One of the librarians there claimed that there is no training or induction training course for the new staff. The cataloguing librarian, however, mentioned that there is usually a one-month induction training for new staff. Most of the library staff members develop their knowledge and information by reading conference proceedings and Internet materials. In addition, some are members of the (British) Library Association and/or the Lebanese Library Association, which provide them with access to up-to-date information on developments in library services. The lack of professional staff in the country forced the AUB-SMML to recruit some unqualified staff. The AUB-SMML should have 13 members of staff, but currently has 11, only one of these has a professional degree, and two volunteers. As there is no formal training programme, new staff learn by experience. Even during the war years, however, some of its staff managed to attend a number of international conferences.

The BAU library staff of 30, 8 of whom have a qualification in library science, are paid by the University of Alexandria. The library staff members are selected for appointment and promotion according to their university degrees and the training they received through the LLA. An organised approach to staff development does not seem to exist, and the library staff seemingly does not have the opportunity to attend specialised courses and conferences. The staff have to develop their knowledge by reading library journals and keeping in touch with various library associations.

The LU libraries have about 72 members of staff, only about 6 had received academic education in library science. Even the library of the Faculty of Information and Documentation did not have professional staff. Most of the LU libraries' staff have been recruited with regard to their relationships with political power brokers or on the grounds of strong family ties with the decision-maker. They appear to lack the motivation to carry out the day-to-day work nor do they display any concern about the library's role and its development. The library appears disorganised, with staff eating in the reading rooms, bringing their children to work with them, and wasting time by sitting on the balcony drinking coffee. Senior managers are reportedly more interested and involved in political matters than in looking after the library. These situations have resulted in major problems for the junior managers who have almost lost control over their staff and become unable to take any strong action against non-co-operative staff. This atmosphere appears to be affecting the relationship between managers and their staff; mutual respect is running out and the potential for conflict seems to be rising. Training is non-existent. Staff have apparently not had any chance to have any formal professional training, even though one of the lecturers in the Faculty of Information and Documentation had volunteered to give the libraries' staff a full course on information and library studies, as there were no other students during the war. Nor do they attend specialised conferences, other than one who had attended several training courses in France and Lebanon during the war. Some of the LU libraries' staffs are full members in the LLA but few of them attend the association's meetings. During the 1990s, there was a plan to have regular meeting between the LU and AUB libraries' staff to help the LU libraries in the rebuilding and development of their libraries, but the proposal was not adopted because of the sensitivities of the LU library staff.

Both the AUB and the Lebanese Library Association have made efforts to promote librarianship by providing the library community with training courses, seminars and workshops in cataloguing, classification, reference service and in the use of new technology. At present, however, some library staff sees their main hope for career

development lying in further studies and the prospect of rising above library employment.

Collections

Collections held by university libraries in the Arab world range from 150,000 volumes to over 1 million (Khalifa 1997). However, studies to determine the adequacy of the collection size of university libraries have revealed that the majority do not meet the [American] *Association of College and Research Libraries Standards for College Libraries*, even in the affluent Arab countries. The deficiencies were explained by lack of planning; absence of collection development policies; low participation by teaching staff in collection development; and insufficient financial support. They have been exacerbated by the absence of interlending systems and on-line information retrieval facilities (Ashoor 1992).

Many libraries in the region contain manuscripts, and there is an increased awareness of their importance. Some libraries have microfilming facilities and are able to make copies of their holdings (Francis 1993, 114). There is, however, a considerable shortage of skilled and experienced conservation staff, and, despite the absence of local provision for training, few are trained overseas.

The AUB Jafet Library and its branches have over half a million volumes and 2,841 subscriptions to periodicals, of which 266 are in Arabic. The collections also contain about 10,000 volumes of theses and dissertations, 9100 photographs, 1400 posters, 1500 maps, 1,400 manuscripts, 15,000 microfilmed documents, some 858,000 microcards and microfiches, and nearly 920,000 audio-visual items of all kinds (AUB 2001b). The AUB-SMML collections include nearly 35,000 books and 62,000 bound serials. The annual accessions include 1500 books and 1300 current serials. A unique collection of books and articles dealing with health and medical topics in Lebanon has been built up and now includes 5000 references indexed in dBase. The AUB-SMML services continued during the war years despite the absence of students and other users, and serials continued to be acquired.

The BAU central library has a collection of 110,000 volumes, 50,000 of them in Arabic, and receives 1700 periodical titles, including 300 in Arabic. There are also about 1,100 theses in edu-

cation, arts and law. BAU libraries have planned to provide suitable accommodation for manuscripts and rare books, and to establish standards policies and procedures.

The holdings of the LU library system as a whole are substantial, with about 600,000 volumes, but the extent of duplication between the numerous branches is not known. In addition about 1,600 periodical titles are held. The central library has a collection of more than 35,000 volumes in Arabic, French, and English. Some valuable books were damaged during the war (Toemeh 1996), insects have eaten some, and some are still visibly in need of cleaning, repair, or binding. Budget constraints, common to all three universities, have forced LU to take particularly drastic decisions. Little up-to-date material is available in the LU libraries. New book acquisitions have become a rare occurrence. Each branch library used to buy 10 copies of a new title, but even though this has been reduced to 5 copies, the library is still acquiring about 225 copies of each title. The libraries gradually reduced purchases of periodical titles during and after the war, because they became more expensive and the library budget could not afford them. According to a senior librarian, there are no current subscriptions to abstracting or indexing databases, and both faculties of medicine in LU could not afford the cost of receiving one regular medical periodical. A large selection of donated periodicals in European and oriental languages is received annually.

The AUB-SMML reference librarian and the senior librarian are responsible for purchasing books and other library materials with the help of the university academic staff. In BAU the chief librarian is responsible for ordering books, periodicals, and inter-library loans. Books and other library materials are usually acquired following requests from the academic staff. Books purchased for the LU libraries are mainly chosen by academic staff, but the acquisition policy is very complicated, as authorisation from several people is needed for any item. Lecturers have not played an active role in encouraging students to use the library. Most concentrate on selling their own textbooks to students. LU students are sometimes provided with reading lists, but where these are wide in scope, many of the items are frequently unavailable.

Library buildings

During the last decade, new university library buildings have been constructed in almost every country in the region. Almost every university in the region has new library buildings except some of those in Egypt and Yemen. Seating capacity tends to be low in relation to the size of the potential user community in many of the libraries. For example, Cairo University Library has only 200 seats for 150,000 users. However, seating capacity is said to be adequate in libraries in most of the Gulf States (Khalifa 1997).

The AUB Jafet Library was damaged in November 1991 by a bomb that inflicted serious damage to the southern wing of the library. A renovation and development programme was completed in 1996, resulting in 59% increase of student reading room areas and over 150% increase in storage areas. It has central heating and air-conditioning facilities, and a 3M security system. The library has many personal computers, as well as photocopying facilities. The AUB-SMML moved to its current building in 1975, and also has a number of personal computers and photocopiers. The AUB-SMML library building suffered minor damage during the war, without seriously damaging the collections.

The libraries in the BAU can best be described as a collection of departmental libraries. Every department has its own library, located in different floors of the main building, with the exception of the Architecture Library, which serves a department located in a separate building. The BAU buildings shared in the destruction during the war. For example, the commerce library was ruined and its materials badly damaged. The same thing happened to the Arts library, where the floor and the library equipment were destroyed. Each library has a reading room, with security guards at the entrance, and its own cataloguing and ordering department.

The LU Central Library consists of three floors; one for reading and the main book collection; one for a store and the cataloguing department; and the third for new materials and theses. Most LU branch libraries consist of one to two rooms not particularly suited to library purposes. In general, most of the LU libraries are cramped, with limited reading space, shelf provision, and staff activities. Most LU libraries suffer from lack of

furniture, audio-visual equipment, photocopiers, air-conditioning and other facilities.

Library automation

Developing countries generally are disadvantaged in exploiting new technological tools by lack of equipment and training. Some Arab university libraries are still primitive in handling library materials and services whilst others, such as Qatar University and the Saudi universities, are fully automated. Developing software for processing bibliographic materials in the Arabic language is a relatively recent development and, when libraries in the countries where Arabic is the main language started automating their collections, most library systems did not provide for the use of Arabic script. This capability had to be developed, and systems such as MINISIS, ALEPH, Dobis/Libis, TinLib, and OLIB started to fill the gap. The simultaneous handling of Arabic and Roman scripts in automated systems was initially a problem, but even in the early 1990s versions of both Dobis/Libis and MINISIS had great potential for handling Arabisation of library functions, although both required considerable enhancements to particular features (Chaudhry and Ashoor 1990). Successful efforts have been made over the last decade to overcome these problems (Iskanderani and Anwar 1992). Several libraries in the Arab countries have now adopted integrated automated housekeeping systems such as Dobis-Libis. The low-cost MINISIS and Bibliofile systems have also attracted several libraries, including some in relatively affluent countries (Siddiqui 1997). However, even when automated systems were becoming the norm in western universities' libraries, there were several Arab countries where there were no reported installations of integrated computer systems (Francis 1993, 112).

In AUB, most of the AUB Jafet Library's processes have been automated since 1997. AUB Jafet Library staff observed that the automation had started during the war, but the destruction of the building during the war had hindered progress. Their aim is an up-to-date system, comparable to advanced libraries internationally. AUB computerised its library using LIBCAT to produce its machine-readable catalogue and introduced an OPAC for students, academic staff, and outside users. Its records contain bibliographic,

location and call number information for library materials. The circulation system has also been computerised. The AUB Jafet Library expects to complete its automation in the near future to a standard comparable to academic libraries internationally. An AUB-SMML librarian reported that during the war years they managed to bring in some new technology and provide the library with modest operating systems. The AUB-SMML's loan and housekeeping operations, except circulation, have been fully automated since 1990 using Data Trek software. It now incorporates Internet software to access various networked databases. More recently the AUB Libraries converted their Arabic materials for use in the OLIB7 library management system (Medawar 1999).

A plan to automate the BAU libraries was drawn up during the war, but not implemented. Although the MINISIS computer system is available in Lebanon, it is considered expensive. Some discussions took place between the BAU and the AUB about sharing an Oracle system but failed for technical and financial reasons. The BAU library has yet to introduce automation to its services, and personal computers are used only in the main offices in support of library management. The chief librarian expects the libraries to be automated in the next few years, but staff are less optimistic about the time scale.

In the LU libraries the only PC terminal can be found in the Central Library of the Faculty of Arts and Human Science, a CDS-ISIS system presented by the Arab League in 1994.

Information retrieval systems

AUB Jafet Library uses the Library of Congress Subject Headings (LCSH) and the Dewey Decimal Classification (DDC). The library has developed its own subject headings list for its Arabic collection based on the LCSH. The AUB-SMML uses the National Library of Medicine (NLM) classification schedule and the NLM medical subject headings (MeSH).

While a large proportion of the BAU libraries' collection is in Arabic, classification is also by Dewey Decimal Classification (DDC). The library uses the Anglo-American cataloguing rules (AACR2), the Library of Congress Subject Headings (LCSH), and Khazendar (Arabic Subject Headings prepared by Ibrahim Ahmed Khazendar).

LU libraries use Dewey Decimal Classification (DDC) (English-French) for classification and Cutter (French edition) for cataloguing.

Online and CD-ROM databases

In 1978, Kuwait became the first country in the region to access DIALOG. By 1984, DIALOG had users in seven Arab countries, but it was not universally available in the region even in the late 1990s (Zehery 1997). Use of on-line services has been influenced by the costs of searching (Francis 1995). Databases on CD-ROM have been more widely introduced in libraries in the region Francis 1993).

The AUB libraries' connections to DIALOG were established in 1985. Although on-line access to DIALOG is possible, use of CD-ROM's is preferred for heavily used databases for economic reasons. CD-ROM titles available in the AUB-SMML include Medline, EMBASE, BIOSIS, CLINPSYC, PoPLINE and CINAHL. AUB-SMML staff give a one-hour lecture twice a week, open to all users, on how to conduct a search on the CD-ROM and use the different databases. The Library is planning to put its CD-ROM station on the Local Area Network, and also plans to make its databases available to all users via the Internet. On-line and CD-ROM services are not in use in either BAU or LU libraries.

Bibliographic Records

On-line and CD-ROM services are used for the supply of bibliographic records for acquisitions and cataloguing purposes in libraries in the region. The availability of CD-ROM services provides the possibility of even modestly funded libraries acquiring authoritative cataloguing records for the portions of their stock published in recent years in the UK or USA. At least one library in Saudi Arabia has access to OCLC. In 1993, international efforts were initiated to develop a MARC standard for the handling of Arabic computerised bibliographic records (Khalid 1996).

The AUB libraries use USMARC formats, and other libraries usually follow these standards as far as their professional capabilities permit.

Inter-lending and regional co-operation

Interlibrary lending has long been the most usual way of co-operating and sharing resources, but requires bibliographical tools and services, communication channels and an organisational framework. The practice has not been widespread in the Arab countries (Fihri 1994), but was carried out by some university libraries on a voluntary basis (Sari 1994). The biggest problem with inter-loans from foreign countries is the cost of postage.

However, the 8th general conference of the Arab Bureau for Education held in Qatar in 1985 adopted a policy of inter-library lending between universities in the Gulf States (Francis 1993). This is assisted by the existence of the computer network GULFNET linking academic and institutions in the Gulf, and by machine-readable union catalogues of holdings of serials. GULFNET was established in 1985 to provide access to international database services, as well as document delivery services. That agreement did not cover all Arab states (Basager 1995). Since 1987, the Arab League Documentation Centre (ALDOC) has therefore been attempting to establish ARISNET (Arab Information System Network), based on proposals made in 1982. In 1988 UNESCO support was received. This network covers all Arab states.

Apart from these two modest instances there is little evidence of the development of regional co-operation networks. Interlibrary loan does not operate between university libraries within Lebanon. The AUB libraries' document supply requests are made to the National Library of Medicine in Washington, as the British Library Document Supply Centre is considered to be too expensive. The AUB-SMML has an agreement from the World Health Organisation (WHO) and the Lebanese Ministry of Public Health to finalise a "project for Health and Biomedical Information Network for Lebanon". This project aims to "have available and accessible international databases for potential users over a wide area network", and to create the AUB-SMML virtual library. Following this project it is planned to spread the service to other countries, which gives the chance for Lebanon to be the leader in this field and make inter-library loan much easier between the medical libraries in the Arab world.

Library users and services

The use of university libraries in the Arab world is limited. The reason could be that most of the university libraries in the Arab world were established as part of the administration rather than as a primary educational component of the university. This minimised their ability to support the educational process, and restricted student use of library resources and services (Zehery 1997). Services in the majority of Arab university libraries are limited to lending materials. Only a few libraries in the region offer a broader range of services.

According to 1998 estimates, over 5,000 students and about 600 academic staff use AUB libraries. The AUB Jafet Library and AUB-SMML offer reference and loan services for staff and students, and reference and information services are also provided to non-academic staff, AUB Alumni Association members, and to other academic institutions in Lebanon. AUB staff and students need their university ID to use library materials, but pay only for using the short-loan collection and for overdue loans. External users have to request and pay for their library cards. The library used to play a role of a public library but it ceased after several robberies and vandalism to the collections. AUB libraries do not generally provide Internet access or e-mail facilities. The students have access to e-mail through the computer laboratories. However, users of AUB-SMML make heavy use of the on-line bibliographic search service.

BAU library services are limited to reading facilities within their premises, as regulations do not permit external loans. According to a senior library staff, the BAU undergraduate students tend to use only items that have been identified for them by lecturers or bring in the textbooks or notes upon which they depend heavily. It is reported that the library plays the role of the public library and is open to anyone on payment of a fee, but there are no reliable statistics of library users.

Education at LU is also heavily teacher-centred and concentrates on the use of core texts and teachers' notes, almost entirely geared to the passing of the prescribed exams. The enthusiasm for the library when it was first established has disappeared now. It is estimated that only about

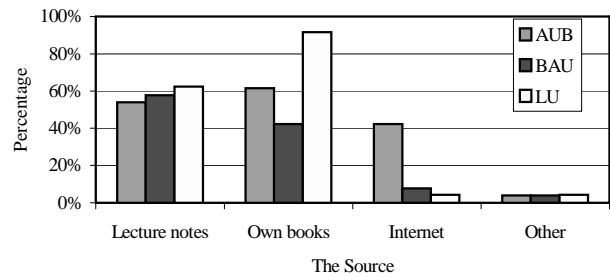


Figure 1: Students' alternative sources of information.

30 LU students use the library each month from a population of about 39,000 students. The LU libraries had a well-defined lending policy before the war (LU 1974), but currently there is no specific policy in force and individual staff members apply arbitrary decisions. It offers reference and loan services, and is used by a cross-section of the university community.

Student opinion

In each of the selected universities, 33 questionnaires were randomly handed out to students studying different subjects in different faculties. In total 83 responses were returned by students – 26 from AUB, 24 from BAU, and all 33 from LU.

The libraries at AUB were visited by students searching for information in support of their study programmes more frequently than the libraries in the other two universities. Students from BAU did not visit the library in search of information to use in their assignments, but rather for more particular reasons such as looking for previous exam questions. LU students used the library mainly for reading (studying), with the exceptional few being keen to use it for research purposes.

Students were asked about the alternative sources of information that they used, other than the library (see Figure 1). Responses from AUB showed that students use the Internet for information and do not rely much on buying textbooks. The picture is quite different with BAU and LU students who seem to rely heavily on books written by their tutors.

The role of lecturers in encouraging students to use the library was also explored (see Figure 2). In general, responses indicated that lecturers do encourage students to use academic libraries.

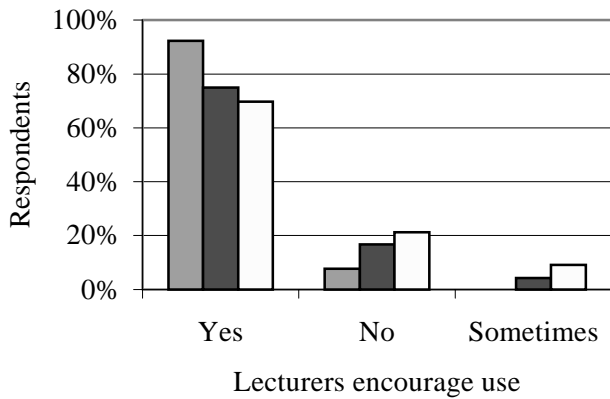


Figure 2: Impact of lectures on use of libraries.

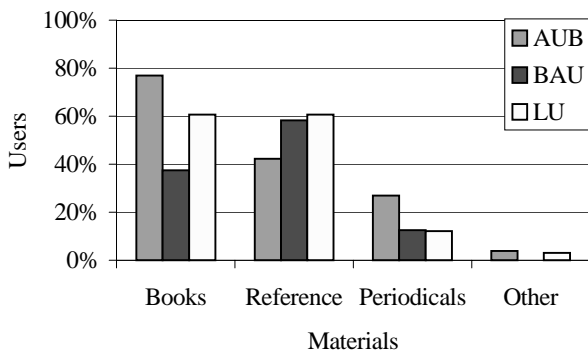


Figure 3: Type of materials used.

About 77% of students in AUB who participated in the survey use the libraries' books, about 42% used reference materials, and about 27% use periodicals. The picture in the BAU is rather different where about 38% of the students use the library's stock of books whereas they use the library more to consult reference materials (about 58%), only 13% use periodicals in the library. In the LU the survey indicates that the same proportion of students (61%), use both books and reference materials to the same level. However, only 12% used periodicals (see Figure 3).

92% of AUB students claimed to be able to use personal computers. The percentage drops to 55% at LU and 46% at BAU. Over 80% of AUB students reported making some use of the libraries' computerised systems, but only 30% of BAU students had made use of that library's more limited facilities.

The majority of students (83%) at AUB and BAU claimed to be able to find the information that they need when using the library with ease.

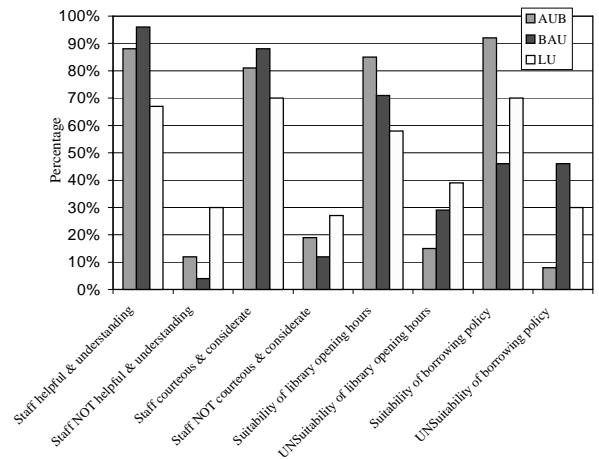


Figure 4: Students' level of satisfaction with libraries' staff and services

However, 39% of the LU students found it difficult to find information in the library. No particular reasons were given.

A number of closed questions were designed to determine the level of satisfaction students have had with the library staff, the opening hours and the lending policy (see Figure 4). The responses showed that students in all three universities were generally satisfied with staff service and attitude. However, whereas 85% of AUB students and 71% of BAU students were happy with the opening hours adopted by the library, only 58% of LU students expressed content. Similarly, 92% of AUB students and 70% of BAU students were satisfied by the lending policy adopted by the library, but as few as 46% of the BAU respondents were satisfied.

Some open questions, directed towards evaluating the library services and management, sought to identify the difficulties faced by students when using the library and their suggested improvements. The responses that follow are not listed in any order of frequency, but simply give a flavour of students' perceptions. Students' overall opinion of the AUB libraries' service was supportive. AUB staff provides a two-hour tour around the AUB Jafet Library to teach the users how to use the library's materials and find what they need. Students noted that an introduction to using the library makes students' life a lot easier, and that the computerisation of the catalogue had reduced difficulty in finding information. Sometimes the library is overcrowded and there was no place to

study. The strict rules inside the library especially on talking, eating and drinking in the library and the security check for books at the exit make students uncomfortable. At BAU students called for an increase in the number of personal computers and Internet connections for research, and, interestingly, were aware of the need for the library to be brought up a level comparable to other Arab countries. Some mentioned the shortage of books about new subjects in technology and computer science, and the lack of guidance from lecturers, and complained that they were not allowed to bring books or lecture notes into the library. Only the LU students expressed a considerable level of dissatisfaction with the service. Comments were made by them about the lack space for reading; the absence of air-conditioning; the poor organisation making it difficult to find some important books; the inadequacy of the collection to support research; the absence of up to date books in certain subjects; the poor physical condition of the collection; and a mismatch between the language of items in the reference collection and that known by students.

Staff opinions

In the eyes of the staff who were interviewed, the main problems facing the AUB Jafet Library were work pressure, attributable to time constraints and a lack of professional and qualified staff; the impact of theft and vandalism on the collection; and a lack of suitable software designed to serve Arabic libraries' needs. According to the staff of the AUB-SMML, they do not see much difference between AUB-SMML and any other modern international library. The main problems facing the AUB-SMML were said to be the need for qualified and professional staff, inadequate remuneration, and the general lack of funds.

From the staff point of view, the BAU library is much improved, but its development would be fostered if lecturers made the learning process more student-centred, encouraged students to do more research, and thus raised awareness of the library's role and importance. The other problems described were fairly comprehensive: a lack of funds, automation, and professional staff; problems in ordering and buying books; the damage in the library's building; and the absence of a lending policy.

The LU libraries are starting to develop, and staff considers the situation now much better than before, but problems remain numerous. Students do not use the libraries. The environment is not conducive for studying. The dispersal of the service between so many branches is a severe handicap. The collection is poorly maintained, and academic staff provide little support for its use and enhancement. There is a lack of modern equipment and professional staff.

Conclusions

A typical Lebanese student is unlikely to have used a library before arriving at the university and, with notions of independent learning still a novel concept in the country's universities, he/she may well graduate without ever entering the library, having relied solely on memorising the lecturers' notes and whatever set books were required purchases (Bilal 1990). Among the three universities used for this study, the AUB is the only one that has an education policy that drives the students to make use of its libraries. Generally, most of the courses in the BAU and LU rely heavily on the course textbook. The absence of a strong and healthy industry publishing material in Arabic for use by staff and students may well be hindering academic libraries' development. This is a circular problem: lecturers tend to give minimum encouragement for students to use the library, but the lack of appropriate library facilities hinders libraries from responding effectively to the few demands made on them.

Studies conducted in other Arab countries, and elsewhere, have indicated that an increase in interlibrary loan requests has been prompted by CD-ROM searching (Kanamugire 1993). The development of means of co-operation among academic between Lebanon and the rest of the (Arab) World is clearly necessary to respond to the demand likely to result from greater use of electronic databases.

With increasing availability of information services geared to end users, information professionals who do not adopt new technology are being marginalised. Developments such as email and the Internet offer viable solutions to developing countries' problems of access to some full texts. Users now have access to a wide range of flexible information sources, but in university libraries in

Lebanon, and some other Arab countries, out-of-date methods persist, and there is an urgent need for initiating modernisation if the libraries are to be seen to be relevant to contemporary needs (Henda 1996). The shortage of computer literate staff is likely to inhibit developments.

Librarianship in Lebanon is a profession suffering from low status and apparent irrelevance to academic needs, and has not so far attracted many young professionals. This state of affairs has had a considerable impact on the quality of service, because of the low proportion of qualified staff in most libraries. According to Meho (1998), the lack of interest in librarianship in Lebanon can be attributed to

- economic and political consequences of the war;
- libraries lacking modern technology to support programmes;
- publishing being given less attention than it deserves;
- library education in Lebanon limited to Bachelor degree level or less;
- most of the professional librarians in Lebanon being denied faculty status; and
- information on Lebanese librarianship being scattered and thus conducting research about it becomes a difficult process.

The primary purpose of an academic library, anywhere in the world, is to support core teaching and research activities in the institution. According to Hunt (1990), the library is the 'central organ' of a university, and the entire 'character and efficiency' of the university may be judged by its treatment. It is therefore not only one of the basic corner stones of any university, but also a key indicator of the academic health of the community it serves. It is apparent that in the three institutions under consideration, the American University of Beirut libraries are leading the way in library development by investing a lot of resources to develop their libraries to reach international standards. Developments in the private academic sector generally may be stimulating the public understanding of the pivotal role of libraries and the library profession in the educational, economic, social and cultural maturity of the country. However, since academic libraries in the public sector are not currently a first priority for the Lebanese government, the gap between the sectors is becoming noticeable. Although circumstances ensured that this was not so rigorous a

study as might have been undertaken in a stable, prosperous industrialised country, it seems clear from the evidence gathered that much still remains to be done to restore the academic health of the universities in Lebanon and to bring their libraries in line with contemporary standards.

References

- Ahmed, M.D. 1988. Die Ausbildung von Bibliothekaren, Dokumentaren und Archivaren im Vorderen Orient. [The training of librarians, documentalists and archivists in the Near East.] *Auskunft* 8(4): 277–86.
- Al-Shorbaji, N. 1994. Library and information services in Jordan. *in* Wise, M., and Olden, A., editors. *Information and libraries in the Arab World*. London: Library Association Publishing Ltd. pp. 104–30.
- Aman, M.M. 1994. Libraries in the Middle East: an overview. *in* Wise, M., and Olden, A., editors. *Information and libraries in the Arab World*. London: Library Association Publishing Ltd. pp. 1–11.
- American University of Beirut. 2001a. Viewed on the Web at URL: <http://www.aub.edu.lb> [Viewed 15 November 2001].
- American University of Beirut. Academic Services. 2001b. Viewed on the Web at URL: <http://www.aub.edu.lb/aub-online/catalogue/general/acadserv.html#libraries> [Viewed 15 November 2001].
- American University of Beirut. Saab Memorial Medical Library. 2001c. Viewed on the web at URL: http://www.aub.edu.lb/libraries/medical/Medical_main.html [Viewed 15 November 2001].
- Ashoor, M.S. 1992. Evaluation of the collections of Saudi university libraries based on the ACRL Standards. *International Information and Library Review* 24(1), March: 3–14.
- Basager, M.A. 1995. Electronic information services in the libraries of the Kingdom of Saudi Arabia. *Pakistan Library Bulletin* 26(2), June: 18–28.
- Beirut Arab University. 2001. Viewed on the Web at URL: <http://www.bau.edu.lb> [Viewed 15 November 2001].
- Bilal, D.M. 1990. Problems of foreign students in using US libraries and the difficulties of translating an international education to Lebanon. *in* TALLMAN, J.I. and OJIAMBO, J.B. editors. *Translating an international education to a national environment: papers presented at the international doctoral student conference sponsored by the Doctoral Guild at the University of Pittsburgh School of Library and Information Science, September 23–25, 1988*. Metuchen, N.J. and London: Scarecrow Press, pp. 23–36.
- Bukhalid, N.A. 1998. The Lebanese Academic and Research Network. Viewed on the Web at URL:

- <http://aub.hiof.no/larn/larn.html> [Viewed 15 November 2001].
- Calvin, P. (1976) Report of a book-buying tour of the Middle East and North Africa. *International Library Review* 8 (3), June: 271–81.
- Chaudhry, A.S., and Ashoor, M.S. 1990. Potential of DOBIS/LIBIS and MINISIS for automating library functions: a comparative study. *Program* 24(2), April: 109–28.
- Chaudhry, A.S., Rehman, S.U., and Ashoor, M.S. 1993. Development and implementation of an in-house continuing education program in an academic library. *Education for Information* 11(1), March: 47–56.
- Directory of Libraries and Documentation Centers in Lebanon*. 1995. Beirut: Lebanese Library Association. (In Arabic)
- Dyab, M.M. 1983. University libraries in Arab countries. *International Library Review* 15(1), January: 15–29.
- El-Arini, M. (1989) Al-Azhar University Library. *Pakistan Library Bulletin* 20(1), March: 33–45.
- Fihri, A.F. 1994. Interlibrary loans in Morocco in Cornish, G.P., and Gould, S., editors. *Interlending and document supply for developing countries: IFLA Pre-session Seminar, Paris, August 1989*. Boston Spa, England: IFLA, Programme for Universal Availability of Publications, pp. 127–140.
- Francis, S. 1993. *Libraries and information in the Middle East*. London: British Library. [Research Review 16] Lebanon is described in pp. 63–66.
- Francis, S. 1995. *Libraries and information in the Near East and Central Asia*. London: British Library Research and Development Department. [Library and Information Research Report 106] Lebanon is described in pp. 39–43.
- Fustukjian, S. 1984. American University of Beirut. *College & Research Libraries News* 45(4), April: 172–74.
- Gardner, S. 1989. Censorship and librarianship in Oman. *Library Journal* 114(19), 15 November: 54–56.
- Hafez, A. 1986a. *The Training of Professionals in Library and Information Science: The Needs of the Arab Countries with Special Reference to the Lebanon*. University College London (London University), Ph.D. thesis
- Hafez, A.K. 1986b. Lebanon. in Wedgeworth, R. editor. *ALA World Encyclopaedia of Library and Information Services*. 2nd edition. Chicago: American Library Association, pp. 446–7.
- Henda, M.B. 1996. Internet: autoroutes de l'information. Vers une restructuration des systemes documentaires. [Internet: information highways. Towards a restructuring of documentation systems.] *L'Ecluse* 8(2), 2nd Quarter: 12–15
- Hunt, C.J. 1990. The relationship between the academic library and the parent institution. in Line, M.B., editor. *Academic Library Management*. London: The Library Association, pp. 7–13
- IFLA Committee on Free Access to Information and Freedom of Expression. 1999. *FAIFE World Report: Lebanon*. Viewed on the Web at URL: <http://www.faife.dk/report/lebanon.htm> [Viewed 15 November 2001].
- Iskanderani, A.I., and Anwar, M.A. 1992. Automated bilingual circulation system using PC local area networks. *Information Services & Use* 12(2): 141–56.
- Kanamugire, A.B. 1993. Impact of CD-ROM database searching on interlibrary loans: the experience of a scientific and technological library in a developing country. *Journal of Interlibrary Loan, Document Delivery and Information Supply* 4(1): 25–34.
- Kent, F.L. 1975. Lebanon, libraries in. in Kent, A., Lancour, H., and Daily, J.E., editors. *Encyclopaedia of library and information science*. New York: Marcell Dekker. Volume 14, pp. 120–130
- Khalid, F.A. 1996. On your MARC, get set, go. *Information Technology and Libraries* 15(2), June: 99–103.
- Khalifa, S.A. 1997 Middle East. in Feather, J.P., and Sturges, P., editors. *International Encyclopaedia of Information and Library Science*. London and New York: Routledge, pp. 297–9.
- Khoury, Y.K. 1972. Bibliographical activities of UNESCO in the Arab world. in Bishop, E. and Waller, J.M. *International co-operation in orientalist librarianship: papers presented at the Library seminars, 28 International Congress of Orientalists, Canberra, 6–12 January 1971*. Canberra: National Library of Australia.
- Kreidieh, S.I. 1996. *Staffing in the Lebanese American University Library: the Human Resource Management*. Loughborough University of Technology. Master's degree thesis, pp. 2–3.
- Lebanese American University. 2001. AA in Library and Information Science. Viewed on the Web at URL: <http://www.lau.edu.lb/academics/programs/artsci/aa-library-sci.html> [Viewed 15 November 2001].
- Lebanese University. 1974. *Directory of Faculty of Arts and Human Science*. Beirut: Lebanese University, pp. 15–16.
- Lebanese University. 2001a. Viewed on the Web at URL: <http://www.ul.edu.lb> [Viewed 15 November 2001].
- Lebanese University. 2001b. Faculty of Information and Documentation. Viewed on the Web at URL: <http://www.ul.edu.lb/francais/infodocum.htm> [Viewed 15 November 2001].
- Libraries in Lebanon*. 1993. Beirut: Lebanese Library Association.
- Macmillen, S. 1994. Egyptian university libraries. in Wise, M., and Olden, A., editors. *Information and libraries in the Arab World*. London: Library Association Publishing, pp. 81–95.
- Medawar, K. 1999 The implementation of the Arabic script in OLIB7 at the American University of Beirut Libraries. *Program* 33(4), October: 303–12.

- Meho, L.I. 1998. Libraries, library science, and librarianship in Lebanon: a selective and annotated bibliography. *Journal of Lebanese Library Association* 2(5), Winter 1997/1998: 14–15.
- Naaman, A. 1994. Library & Information Science. *Journal of Lebanese Library Association* 1(December): 4–5 (In Arabic).
- Naaman, A. 1996. *Preliminary Report on Lebanon: Strengthening of Higher Education*. Italian Trust Fund (ITF), World Bank Library Questionnaire. Beirut: Lebanese American University.
- Nasser, R., and Abouchedid, K. 2001. Problems and the epistemology of electronic publishing in the Arab world: the case of Lebanon. *First Monday*, 6(9), September 3. Viewed on the Web at URL: http://firstmonday.org/issues/issue6_9/nasser/index.html [Viewed 15 November 2001].
- Nazim ALI, S. 1987. Arabic periodical indexing. *Outlook on Research Libraries* 9(4), April: 9–11.
- Siddiqui, M.A. 1996. Library and information science education in Saudi Arabia. *Education for Information* 14(3), October: 195–214.
- Sari, M. 1994. Some comments on the interlibrary loan system in Algeria. in Cornish, G.P., and Gould, S., editors. *Interlending and document supply for developing countries: IFLA Pre-session Seminar, Paris, August 1989*. Boston Spa, England: IFLA, Programme for Universal Availability of Publications, pp. 67–8.
- Siddiqui, M.A. 1997. The use of information technology in academic libraries in Saudi Arabia. *Journal of Librarianship and Information Science* 29(4), December: 195–203.
- Toemeh, G. 1996. *The Lebanese University in the War Years 1975–1988*. Beirut: ? (In Arabic)
- University of Balamand. 2001. Department of Library Science. Viewed on the Web at URL: <http://www.balamand.edu.lb/fass/fali.html> [Viewed 15 November 2001].
- Vernon, E. 1994. Librarianship in Lebanon in the post civil war period. *Third World Libraries* 4(2), Spring: 36–41.
- Zehery, M.H. 1997. University Library Development in the Arab Gulf Region: a survey and analysis of six state university libraries. *International Information and Library Review* 29(1), March: 13–44.