THE LIBRARY AS A DX REFERENCE TOOL

Don Moore

John Bryant

It's doubtful many DXers are aware of how much useful and interesting hobby-related information can be found in public and university libraries. Libraries aren't the place to find "hot" DX news, but they do have a wealth of technical and general background information which can be very helpful. This article will focus on university libraries familiar to the authors, but most of the ideas apply to public libraries as well. Even if you don't live near a good university library, don't despair. Thanks to the miracles of computer communications and inter-library loan, you can get most of these materials from even the smallest public library. But more on that later.

INFORMATION PLEASE

Librarians are the most important research tools in the library. They put somebody behind the information desk for a reason, so don't be afraid to ask questions. In fact, most libraries employ research or reference librarians whose job is to help people find things.

Whether looking for books or magazines, the first place to start is the card catalog. Many libraries today have computerized their card catalogs. But these computer systems are user-friendly and easy to learn. In addition to looking for a specific title or author, doing a subject search with words like "radio" and "broadcasting" can turn up books that might not be on the shelf at the moment. A list of Library of Congress subject headings, useful for subject searches, is included in the appendix. These are useful in doing "Boolean" searches, e.g., telling the computer to find all entries that contain both "India" and "broadcasting."

Call number searches are a good way to find books that may not be on the shelf at the moment. Depending on your library's computer system, you may be able to scroll through all the books with a HE8689 call number. A list of general call number areas of interest to DXers is included in the appendix.

It is beyond the scope of this article to delve into the details of each publication cited. Considerable further information concerning maps, atlases and general "people and places" is found in "Reference Resources for the Advanced DXer" in <u>Proceedings 1989</u>.

GENERAL HOBBY REFERENCES

Many libraries do shelf some of our standard references. Medium sized public libraries are usually well-stocked with ham radio books. Most have a few ARRL handbooks and subscribe to at least one ham magazine. But, unless your public library is really large, you're not likely to find much on SWBC. But, the first step in using the library as a DX tool is to check out the local public one. Besides looking at the books, take a look at their periodicals too. Along with the current ones, find out if they have old copies of magazines like POPULAR ELECTRONICS. Many university libraries, and even some public ones, get the World Radio TV Handbook (WRTH). This could be convenient for the DXer on a budget who wants to skip buying the WRTH for a year - just copy down the current info most interesting to you. Usually the current issue is in the reference collection and can't be checked out. The older issues are often in the general stacks. If you want to see an older edition and your local library doesn't have it, use the inter-library loan service. They can get you a copy of any edition, or photocopy a specific article usually at minimal cost. One exception to the "hot" DX news, is that some libraries subscribe to FBIS and BBCMS. Other SW publications sometimes pop up too, such as Passport to World Band Radio (PWBR), Richard Wood's Shortwave Voices of the World, or some of Gerry Dexter's Tiare Publications books.

MAPS AND ATLASES

This is one area where major libraries really shine. Most have a good collection of maps and atlases, usually in a special Map Room. If you can't find that little Bolivian town you heard last night, probably the best place to look is a gazetteer, a list of geographical place names and their coordinates. Sometimes it's in the back of an atlas, sometimes it's a separate volume. The best gazetteer around today is found in The New International Atlas by Rand McNally, published in several editions, beginning in 1980. Not only is the gazetteer exceptional, this atlas is one of the few that shows provincial boundaries in places like Indonesia, Central America, and Africa. THE NEW INTERNATIONAL ATLAS, however, does not have very good coverage of South America, especially jungle settlements.

The Great World Atlas by the American Map Corporation and most Hammond atlases have four to five times more jungle settlements. The Times Atlas (of London) is also considered excellent by many DXers.

With a little luck, you might be able to locate a specific country gazetteer. The US Department of Defense publishes these for numerous countries, including El Salvador, Honduras, Costa Rica, and Indonesia. They list anything that has a place name - village, brook, hill, island, province, etc. The Indonesian one is two very thick volumes! Other country or regional gazetteers are published privately. The Bishop Museum in Hawaii publishes an excellent one for the Pacific Islands. There are also some very good country and regional atlases. The Atlas of Africa is one of the few that show provincial boundaries in most African countries. Sometimes atlases published in, say, Brazil or the USSR have especially detailed maps of those countries.

Frequently flat maps are more detailed than atlases. Most library map rooms have cabinets full of maps published by foreign governments, oil companies, universities, and the National Geographic Society. The US Defense Department Mapping Agency publishes an excellent selection of topographical maps from around the world, which many libraries stock. In fact, these are inexpensive, and the map librarian should be able to supply you with the order forms.

BROADCASTING BOOKS

Since we are such a small and crazy minority, it's easy to forget that we're not the only people interested in broadcasting. It is an academic subject too, and there are a lot of books about the subject. Entire books have been written about broadcasting in Papua-New Guinea, the Arab World, and the history of radio in countries like Australia, Brazil, and Venezuela. If you specialize in DXing a particular area of the world, you may find the background information very helpful and even fascinating! True, some of these are written in a very academic style, but if nothing else, they may have some good pictures.

What kind of broadcasting books are available? Donald Browne's <u>Limits of a Limitless Medium</u> is "must" reading if you really want to understand why international broadcasting exists. It's a very readable and balanced book with lots of historical background, closeups on international broadcasters, and interesting references in the extensive footnotes. Soley and Nichol's <u>Clandestine Radio Broadcasting</u> is a very detailed history of clandestine radio up to publication in 1987, with chapters divided by era and geography. The Central American and Cuban chapters are excellent. The <u>International Handbook of Broadcasting Systems</u>, edited by Philip T. Rosen has 24 chapters, each focusing on a different country. It gives a good basic picture of broadcasting around the world.

There are many more such books, and a sample list is included in the bibliography. Most books in this category will include their own bibliography of still more interesting reading.

TECHNICAL BOOKS

Since radio, television, and electronics are major fields of study in electrical engineering, any major university library will have many radio-related technical texts in three main subject areas: Electronics, Antennas and Propagation.

You might be surprised to find out how many of the most admired "technical" minds in the hobby hold degrees in Humanities or Law or English, and are self-taught, creative "electronic geniuses." Of the technical books listed in the bibliography, Shrader's <u>Electronics Communication</u> and Orr's <u>Radio Handbook</u> are understandable by anyone, if they are studied rather than scanned like a paperback.

However, if you wish to avoid in-depth study in electronics, propagation may interest you. The primary source of information on ionospheric propagation, the one source quoted by all following authors, is Ionospheric Radio Propagation originally published in 1965 as National Bureau of Standards Monograph 80. That book is available to each of us at virtually any major library with a Government Documents section. It is highly recommended. The other three propagation books mentioned in bibliography (Gassmann, Folkestad and Newman) contain critical information not widely known in the hobby.

A number of recently published antenna books are available to us within the hobby itself. These include the <u>ARRL Antenna Handbook and Antenna Compendium</u> (vol. 1 and 2) as well as several other very good offerings. Most modern professional antenna texts focus on UHF/VHF or VLF. The few that do deal with SWBC focus on transmitting antennas. None of the professional antenna texts which we found seemed useful. This tendency was not true in scholarly papers discussed elsewhere in this paper.

PEOPLE AND PLACES

Finally, let's leave radio behind, and just look at culture. Many of us find it helpful to understand the culture and history of our favorite DX targets. Increasing your awareness and understanding of a DX target area prepares you to recognize and understand what you're hearing when you hear it. It's what separates senior DXers from not-so-senior DXers. Here, again, libraries are useful; just pick your favorite country and see what they have on it. There are thousands of general books and dozens of travel guides that can be useful to DXers. Ohio State University's library has about one hundred feet of shelf space just on Peru.

One of the best books in the People and Places category is <u>The South American Handbook</u>. This annual travel guide has over 1300 pages of detailed information on towns and cities throughout Latin America. Anyone who seriously DXes Latin America should be familiar with this book. Although somewhat dated, John Gunther's <u>Inside South America</u> and <u>Inside Latin America</u> are good places to start reading about the general history, politics, and culture of Latin America.

Surely the best series of "cultural" guide books in English are the <u>Insight Guide</u> series published in Singapore. They are handled in the US by Prentice-Hall. These guide books attempt to be a 'single source' of cultural/historical/climatological and general geographic information for the astute traveler and are written by a collection of usually local experts chosen by the publisher for that particular country or topic. In the <u>Insight Guides</u> there is very little coverage of hotels, restaurants, etc. The <u>Insight Guides</u> to Indonesia and Bali (13th edition) as a whole are the best truly cultural guides that exist on those areas. Some of our Latin aficionados will enjoy the recently published <u>Insight Guides</u> to such places as Brazil, Mexico and Argentina. Current prices for each of these informational goldmines is around \$20.00 US.

The most complete "people and places" travel guide for Indonesia is the <u>Indonesian Handbook</u> by Dalton. They have just introduced a <u>Bali Handbook</u> as well. The latest edition (the 4th, 1988) is over 1000 pages long! Finally, the "Cabot" line of travel guides is not well known in this country because they are published in Switzerland and cost over \$100.00 each. John Bryant, an East Asia expert, swears that the <u>China Guide</u> by Cabot is the best in the business. The South American version is equally recommended by Don Moore.

For a few more ideas in this category, see our bibliography, and check out the one in the Irian Jaya article in <u>Proceedings 1988</u>. Of course, browse the shelves at your local library.

University libraries as academic and scholarly institutions usually have a lot of books which focus on specific topics in specific countries. These books may be written in English or in the country's native language. Sometimes it's worthwhile to check out the indexes in these books for entries like "radio", "broadcasting" and "Voz de", but it's a lot like looking for a needle in a haystack. Still, some interesting things do pop up. For example, Ohio University's library has a sort of "who's who" for La Paz, Bolivia, published by a local commercial organization. It includes several station owners. Many major libraries also have collections of international phonebooks. Call up that rare Peruvian and ask for a QSL or just photocopy the ad as an enclosure.

Another general area of interest to DXers is language. If your university has a good Linguistics department, you may find dictionaries, phrase books, grammars, etc for dozens of languages. If you're having a tough time verifying a particular country, try throwing in a few words of their local language. Don couldn't get LeSotho to QSL until he sent them a report with a few LeSotho phrases like "please", "thank you", and "I like Radio LeSotho". If you do this, DO NOT try making up your own complete sentences in the language. Grammar rules and vocabulary can do funny things if a person doesn't understand how to use the language. Stick to stock words and phrases from the book.

Finally, a good number of excellent <u>People and Places</u> books have been generated as companion books to recent TV series on educational TV networks around the world (PBS in the United States). These include <u>Ring of Fire</u> by the Blair brothers about their travels in Indonesia, and several books published by the Cousteau Society, most recently the incomparable <u>Journey to Papua New Guinea</u>. Other TV companion books highly prized by DXers include <u>Disappearing World</u> (originating with Grenada TV of Britain), <u>The Amazon Rain Forest</u> (Cousteau), and numerous books on China.

PERIODICALS

As with books, there are professional broadcasting periodicals that relate to our hobby. Medium wave DXers especially are already familiar with <u>Broadcasting</u> and <u>Broadcasting Yearbook</u>. Academic journals, such as <u>The Journal of Broadcasting</u> or <u>Communications Quarterly</u> also have articles which relate to our hobby. For example, there's Robert Gwyn's "Rural Radio in Bolivia: A Case Study" in the Spring, 1983 Journal of Communication.

One way to find these articles is to locate a journal and begin scanning each issue's table of contents for interesting titles. Another way is to check a periodicals index. There are specific indices which list articles in particular fields. Such Indices include Communications Abstracts, Middle East Abstracts and Index, and International African Bibliography. Usually these include a short paragraph summarizing each article. Some indices are available on CD-ROM, which allows you to do a quick computerized search for articles with key words. Ask the research librarian for guidance here. Of course, don't forget the basic Reader's Guide, which lists radio articles in old issues of Popular Electronics and other magazines.

TECHNICAL PERIODICALS

The major radio amateur magazines (OST, CQ and Ham Radio) are carried in most major libraries. In recent years the low band and QRP movements have rekindled interest in receiving antenna design, receiving peripheral equipment as well as in our mutual interest in Tropical Band propagation. Back issues of these magazines are bound into book form and usually are retained permanently. Great reading!

TECHNICAL PAPERS

Although frightening to some neophytes, the technical papers collected in a major library can prove a bonanza for any who will give them a chance. Most of these papers are collected and published as "books" much like fine tuning's <u>Proceedings</u>. In fact, many are named "proceedings" or "transactions," etc. The Institute of Electronics and Electrical Engineers (IEEE) publishes whole series of "Proceedings" papers presented at conferences and collections of other papers published monthly as "Transactions."

For casual perusal, IEEE's <u>Transactions on Antennas and Propagation</u> and IEEE's <u>Transactions on Broadcasting</u> are highly recommended. Most libraries also contain large sets of similar papers from sister professional organizations throughout the world. In fact, there are masses of technical papers dealing with subjects of vital interest to DXers.

Faced with such a myriad of excellent sources, it is probably foolish to browse among the bound volumes of technical papers. Luckily, there are at least three abstracting digests available in our area of interest. They are Electrical and Electronics Abstracts, Engineering Information, Inc., and Engineering Index. All three categorize technical articles from many sources by subject matter and all three provide a several sentence-long condensation of the papers' contents. Of the three, our favorite is the first. This multi-volume set has sections on: Electromagnetic Waves; Antennas and Propagation; Communications; Earth Sciences. "E and E" has things sorted both by specific subject and by categories and covers virtually everything written in English in a periodical or compendium from CQ, to the most obscure international scholarly tome. These abstracts make hard work easy!

Words of Encouragement and of Words of Caution: Some people assume that a reader must comprehend, fully, every aspect of a technical article to gain benefit from reading it. That is not true. Authors generally put--in clear English--an abstract of the basic ideas of the article at the beginning of their article. Usually, there is a similar clearly written narrative conclusion. Many of the charts and graphs are also comprehensible even if some of the mathematics and technicaljargon in the body of the article may be rough going. Pick out an area of interest and jump in, the water is fine! ONE VERY LARGE CAUTION, HOWEVER: It is very easy to misunderstand or misuse information and concepts which you do not fully grasp. Be careful! If you have a question, find an expert (write the author) and politely ask if you understand correctly.

Our favorite antenna article, so far, is "Television Receiving with Papaya Tree Antenna." Go for it!

GENERAL PERIODICALS

For most of us, there are probably more general interest magazines we want to subscribe to than we can afford. Whether your interest is <u>Smithsonian</u>, <u>National Geographic</u>, or <u>Islands</u>, your local library might have the one to which you have not yet subscribed.

Most university libraries get a number of overseas newspapers and magazines. Usually these are kept in a separate periodicals or reference room, with older editions bound and placed in the regular stacks. Where these come from will depend on the university's international focus. Finding radio items in these is difficult but they are there occasionally. For example, Ohio University gets a newspaper from Botswana that prints a daily program schedule for Radio Botswana.

It would be impossible to look through all the overseas publications most libraries get. But, if you have a particular geographic interest, you might want to check out publications from that area. Whether it's Bogota's "El Tiempo" newspaper or the magazine <u>Inside Indonesia</u>, there's up-to-date information on what's happening in your country of interest. The librarian should be able to help you find a list of publications from or about a specific country or region.

NOSTALGIA RADIO

A major library is also a gold mine of both technical and non-technical information on the early days of radio. In the non-technical area, many major libraries have complete bound volume sets of virtually ALL of the early day radio hobby magazines. At Oklahoma State, these included: Radio Craft (from 1934 forward), Radio (an early ham mag from 1934 forward), Popular Radio (1923-27), Wireless World (1945 forward), Radio News (1930-38) and Radio Age. You can have a "natural high" by pulling the Nov. 1922 volume of QST and read all about the Wave Antenna recently invented by Harold H. Beverage of RCA!

Many of us involved in restoring hollow state technology go to great lengths and a good deal of expense to find badly needed circuit diagrams and trouble shooting/repair manuals. The Oklahoma State University Library has COMPLETE sets of the famous Rider's Perpetual Troubleshooter books (Vol V to Vol XXIII) as well as all Sam's Photo Fact Service and the Most Often Needed Radio Diagrams as published by Supreme. Some people are paying as high as \$20 for single diagrams which are either available at their own public library or which can be obtained virtually free through inter-library loan!

While you are at the library, you might look at the <u>Yearbook of Wireless Telegraphy and Telephony</u> of 1916. Mr. Marconi's picture is shown. He is formally posed wearing an Italian Army uniform (Lieutenant in the Signal Corps, of course!).

AUXILIARY SERVICES

Many people think of a library only as a container for books. In fact, even the smallest libraries offer many other services of real value to DXers. For instance, a growing number of municipal libraries have mini-computers (usually Apples and PC clones) for free use by their patrons. You usually have to attend a 10-15 minute introductory briefing prior to your first use of these machines.

Many public libraries offer large collections of audio and video tapes to their patrons. If you would like to hear Andean huyano or Indonesian gamelan music without static, try a major city library.

Even very small neighborhood libraries now are hooked up to "OCLC." The On-line Computer Library Center is a data base of library holdings. It can be searched on a local, regional or national level for material by author or it may be searched in a "subject" mode. OCLC is housed in the PC that you see near the circulation or reference desks. Many libraries allow patrons to search the database themselves; others insist on doing it for you. Either way, its the best video game in town, and free to boot!

The auxiliary service most useful to radio enthusiasts is Inter-Library Loan. This is a usually free service and gives patrons of even the smallest libraries access to almost any book or periodical held in most North American and even some European libraries. All you have to do is fill out a form giving the normal bibliographic citation of the book in question (author, title, publisher, date). The library staff then uses a computer to search an international data base. They are able to identify the nearest library holding your book, and your library receives the book by mail. NOTE: the same routine works with magazine articles. In that case, after the bound volume is found by the computer search, the distant library photocopies the article that you want (often for a small fee) and mails the copy to your library.

Lastly, it is possible to ask the library to do "key word" searches of bibliographic data bases. THIS IS NOT USUALLY A FREE SERVICE. This service consists of entering "key words" into the computer and sorting a commercially prepared data base to find articles or books of specific and narrow interest to you. This is a very sophisticated service and can be very expensive. For instance, we asked to have a search made for high frequency radio wave antennas (so-called Beverage antennas) and got a \$30 print-out that included every article written in english which included both the words "radio" and "wave" in the abstract! It was a looooong print-out and useless! A better way for us neophytes to search for articles is the use of the Electrical and Electronics Abstract books.

CONCLUSION

You can see how impossible it is to keep up with even one segment of the information explosion related to our hobby. To us, that is one of the best aspects of the hobby--it is truly open-ended and combines both technical and humanistic/cultural interests at whatever ratio each of us desires.

One highly recommended way to keep this article and your sources of information current is to subscribe to <u>The Journal of the North American Shortwave Association</u>. The Journal contains several excellent columns dealing with many of the subjects contained in this article. Further, it carries a column called "Listener's Library," edited by John Bryant, containing reviews of several interesting resources each month. Though dealing primarily with books, it also covers magazines, individual articles, videos and computer software of special interest.

For North American readers, you generally have "every right" to use the libraries at your state's tax supported colleges and universities, whether you are an enrolled student or not! You certainly may browse shelves, read, or photocopy things of interest. Most of these libraries also allow citizens of their state to check out books as well, though sometimes this privilege must be arranged in advance.

For those us who don't know university libraries well, they do beat public libraries except in the very largest cities. Libraries do have tremendous resources. However though reference librarians are there to help you, they won't do your work for you. To get anything near maximum benefit, you have to spend a lot of time learning the ropes. Browse for many hours. It is also worth taking the several-hour-long "course" or "extended tour" that most university libraries offer to incoming freshmen.

Well, we hope you're convinced that there is a ton of information out there for us. We've probably also convinced you that you would have to be nuts to go to all this work. We won't argue with that! Still, why not give it a try? Sometime, on a free day, drive to a nearby large university or public library and check it out. Take this article along and see what you can find. Also, don't forget to take along a lot of note paper and a pocket full of change for the copy machine - you're going to need it!

APPENDIX ONE

LIBRARY OF CONGRESS SUBJECT HEADINGS:

For a precise breakdown, look under 'radio' in the Library of Congress subject headings book.

radio radio antennas antennas communication propaganda radio program stations radio stations international broadcasting radio journalism

amateur radio stations receivers and reception radio in (cntry/region) radio stations, foreign

LIBRARY OF CONGRESS CALL NUMBERS:

Note that different libraries may have the same book catalogued in a different section.

BV656: Catholic radio. BV2082: Missionary radio. D810: WWII radio propaganda.

DS: General books on Asia and the Mid East.

DT: General books on Africa. DU: General books on Oceania.

F1200-F3800: General books on Latin America.

G1: Geography, including NATIONAL GEOGRAPHICs.

GR-GT: International folklore and customs.

HD9999: Radio supplies industry.

HE7600-HE8700: General broadcasting, esp. 8689-8699.

LB1044: Radio in education.

P87-P100: Mass communications, incl. some radio.
PJ-PL: Mid East, Asian and African languages

PN1990-PN1991: General broadcasting.

PN4784: Radio journalism.

QC9725: Auroras.

TK5700-TK6655: Technical & radio history. Incl. WRTH.

TL696: Aeronautical beacons. UG610: Military radio.

VK397 & VM325: Maritime radio.

DEWEY DECIMAL LISTINGS

621: Radio and Electronics

914-919: Worldwide travel books. 940-990: Worldwide history books.

APPENDIX TWO BIBLIOGRAPHY

The following list is by no means complete, but it should get you some idea of what's out there beyond the traditional bounds of hobby radio. More sources on specific topics can be found in the bibliographies and footnotes in these books and articles.

BROADCASTING BOOKS

ABC Press & Public Information Department. The Constant Voice: Radio Australia's 30th Anniversary 1939-1969.

Alisky, Marvin. Latin American Media: Guidance and Censorship. Iowa State University Press, 1981.

Almeida, Mauro. Comunicacao de Massa no Brasil. Edicoes Jupiter: 1971.

Armas Chitty, Jose Antonio. <u>Historia de la Radiodiffusion en Venezuela</u>. Edicion de la Camara Venezolana de la Industria de Radiodiffusion, 1975.

A general history, with short closeups on 30 stations, most of which are or have been on shortwave. Some pictures.

Asamoah, Ernest, ed. Golden Jubilee July 1935-1985: 50 Years of Broadcasting in Ghana. GBC Golden Jubilee Publicity & Literature Committee, 1985.

Lots of black and white photos.

Ballon, E., et.al., eds. Radio y Communicacion Popular en el Peru. Centro Peruano de Estudios Sociales, 1987. 319p.

Radio in social development, with chapters focusing on Catholic stations such as R. Quillabamba, R. Maranon, & LV Selva. Fascinating, but no pictures.

Barnouw, Erik. A Tower in Babel. Oxford University Press, 1966.

.The Golden Web. Oxford University Press, 1968.

.The Image Empire. Oxford University Press, 1970.

These three books are a set, each subtitled "A History of Broadcasting in the United States:" the first is from the beginning to 1933, the second from 1933-53, and the third after 1953.

Bonavita Federico, Maria Elvira. Historia da Comunicacao Radio TV no Brasil.

Boyd, Douglas, ed. Broadcasting in the Arab World. Temple University Press, 1982.

Broadcasting In....

There are books on numerous countries under this name, many published by Sage Publications. Among those found are Nigeria, Papua New Guinea, India, Guyana, Mexico, Australia, Peninsular Malaysia, and Eastern Europe. Check this out on your library's computer or OCLC.

Browne, Donald R. <u>International Radio Broadcasting: The Limits of the Limitless Medium</u>. Praeger, 1982. A classic.

Childs, Harwood & John B. Whitton. <u>Propaganda by Shortwave</u>. Princeton Univ. Press, 1942. Shortwave history.

Commonwealth Broadcasting Association Handbook. London, 1976.

Info and pictures on stations throughout the commonwealth.

Danilov, A. <u>Broadcasting Pirates</u>. Moscow: Progress Publishers, 1981.

English reprint of an official Soviet book about radio pirate problem in the USSR.

Fejes, Fred. Imperialism, Media, and the Good Neighbor: New Deal Foreign Policy and United
Shortwave Broadcasting to Latin America. Ablex, 1986, 193p.

An interesting look at early US shortwave & the beginnings of the VOA. Lots of references.

Ferraz Sampaio, Mario. Historia da Radio e da Televisao no Brasil e no Mundo. 1984.

Fox, Elizabeth. Politics and Mass Media in Latin America. 1988.

Frederick, Howard H. Cuban-American Radio Wars: <u>Ideology in International</u> <u>Telecommunications</u>.

Ablex, 1986.

Fundacion Standard Electric Argentina. Historia de las Comunicaciones Argentinas. F.S.E.A., 1979.

Gil, Gustavo, ed. De las Ondas Rojas a las Radio Libres. Barcelona, Spain: 1981.

This is about pirate radio in Europe.

Hale, Julian. Radio Power. Temple Univ. Press, 1975.

Emphasis on SW as a propaganda tool.

Head, Sydney, ed. <u>Broadcasting in Africa: A Continental Survey of Radio and Television</u>. Temple Univ. Press, 1974. 453p.

Herz, Daniel. A Historia Secreta da Rede Globo. Tche Editora Ltda., 1987.

A muckraking look at Brazil's REDE Globo which, after the US's big three, is the 4th largest radio/TV net in the world. Unfortunately is in Portuguese and has no photos

Katz, Elihu & George Wendall. Broadcasting in the Third World. Harvard Univ. Press, 1977. 305p

Lent, John A. Broadcasting in Asia and the Pacific. Temple Univ. Press, 1978.

Lopez Vigil, Jose Ignacio. Radio Pio XII - Una Mina de Coraje. Quito: Edicion ALER, 1984.

Yes, a whole book on one Bolivian radio station! Mentioned in Chasqui (see below).

Machado, Arlindo, Caio Magri, and Marcelo Masagao. Radios Livres: a Reforma Agraria no Ar. Editora Brasiliense SA., 1986. 190p.

A Portuguese book on Brazilian pirate radio. Some photos.

McCavitt, William E. Broadcasting Around the World. Tab Books, 1981.

Closeups on 18 countries. Brazil, Guyana, & India of interest.

McNeil, Bill & Morris Wolfe. The Birth of Radio in Canada. Doubleday, 1982. Includes early days of 49m stations. Lots of photos.

Murce, Renato. Bastidores do Radio. 1976.

A personal look at Brazilian radio history with lots of old black and white photos.

Noguer, Jorge Eduarado. Radiodiffusion en la Argentina. Editorial Bien Comun., 1985. 544p.

Partner, Peter. Arab Voices: The BBC Arabic Service 1938-1988. BBC External Services, 1988.

Pauwels-Boon, Greta. L'Origine, L'Evolution et le Fonctionement de la Radiodiffussion au Zaire de 1937 a 1960. Musee Royal de L'Afrique Centrale, 1979. 335p.

Nice section of old black and white pictures.

Rosen, Philip T., ed. <u>International Handbook of Broadcasting Systems</u>. Greenwood Press, 1988. Focuses on broadcasting in 24 countries.

Shepherd, F. M. <u>Technical Development of Broadcasting in Asia-Pacific 1964-1984</u>. Asia Pacific Broadcasting Union, 1984.

Very technical, but some good photos of stations in Nepal, Qatar, Singapore, Sarawak, etc.

Short, K.R.M. Western Broadcasting Over the Iron Curtain. St. Martin's Press, 1986. 274p.

Soley, Lawrence, & John S. Nichols. Clantestine Radio Broadcasting. Praeger, 1987. 384p.

A "must read" for clandestine fans.

Tellez, Hernando B. <u>Cincuenta Anos de Radiodiffusion Colombiana</u>. Editorial Bedour S.A., 1974 History of Colombian radio. Some photos.

Ugboajah, Frank Okwu. Mass Communication, Culture, and Society in West Africa. K.G.Saur, 1984.

Wilcox, Dennis L. Mass Media in Black Africa: Philosphy and Control. Praeger, 1975. 170p.

TECHNICAL BOOKS (Nostalgia)

Sams, Howard W. (and Co.) <u>Sam's Radio Photofact Services</u>. Indianapolis. 1946-present. Also many other radio and TV technical manuals by same author.

Rider, John F. Perpetual Trouble Shooter's Manual. Vol. V to XIII begins in 1934. Rider Publishing, New York.

. The Yearbook of Wireless Telegraphy and Telephony. The Wireless Press, Ltd. London. 1916.

TECHNICAL BOOKS (Current)

Davies, Kenneth. <u>Ionospheric Radio Propagation</u>. National Bureau of Standards Monograph 80, US Dept. of Commerce, 1965.

Folkestad, Kristen, ed. Ionospheric Radio Communications. New York: Plenum Press, 1968.

Gassmann, G.J., ed. The Effect of Disturbances of Solar Origin on Communications. New York: The Macmillan Company, 1963.

Newman, P., ed. Spread F and Its Effects upon Radiowave Propagation and Communication.

London: Technivision, W. and J. Mackay and Co. Ltd.

Proceedings of the Institution of Electrical Engineers (Great Britain).

Has isolated articles of intense interest.. Publication begun in the 1880's.

Transactions on Antennas and Propagation.

IEEE from 1953 to present, published by the Institute for Electrical and Electronic Engineerings. Bound volumes have several cumulative indexes, especially Vol. 33 with index 1954-84.

Transactions on Broadcasting.

IEE from 1955 to present. Not too much on SWBC, except for full double issue in Sept, 1988.

TECHNICAL PERIODICALS

CO Magazine. Radio amateur magazine from 1949. Some very good propagation articles.

Ham Radio. One of the better US amateur magazines, published since 1969. Great DX forecasts by very believable Garth Stonehocker, KORYW.

Popular Electronics. From 1949. Project oriented, but many listening and DXing articles plus Hank Bennett's column.

Popular Radio. Early day listening and popular technical magazine from 1911 until at least 1928. Super.

Practical Wireless.

OST. Main monthly publication of Amateur Radio Relay League (ARRL). 1916 to present.

Occasional antenna and propagation articles of interest.

Radio. Established in 1917 as an early radio amateur publication. Became AUDIO ENGINEERING after WW II and now AUDIO.

Radio Age. Began in 1921 as popular radio magazine. Published for several years. Failed.

Magazine of same name published by RCA after 1941. Original Radio Age is super for nostalgia buffs.

Radio Craft Magazine. Began in 1928 as an early day version of its modern successor Radio

Electronics. Project oriented. Great for nostalgia buffs. A Gernsback Publication.

Radio News. Popular listener and technical magazine begun in 1919. Became Radio and Television News in 1949 and Electronics World in 1959. Pre-WW II issues great for nostalgia

Wireless World. British technical magazine from the 1890's to present.

GENERAL BOOKS

Bodard, Lucien. Green Hell. E.P. Dutton, 1971.

An interesting history of the Brazilian Amazon.

Cortazar, Pedro Felipe. Documental del Peru. Enciclopedia Nacional Basica.

A set of books on each individual Peruvian department, aimed at Peruvian high school

students. Cheaply printed, but lots of interesting pictures and facts.

Fisher, Morris. Provinces & Provincial Capitols of the World. Scarecrow Press, 1985.

A lot of potentially useful lists.

Gunther, John. Inside South America and Inside Latin America.

Hinds, Harold E. & Charles M. Tatum. Handbook of Latin American Popular Culture. Greenwood Press,

Kandell, Jonathon. Passage Through El Dorado. Avon Books, 1984.

A fascinating travelogue from Colombia to Paraguay on the western fringe of the Amazon jungle.

Kelly, Brian and Mark London. Amazon. Harcourt Brace Jovanovich, 1983.

Simon, Jean-Marie. Guatemala: Eternal Spring, Eternal Tyranny. Norton, 1987.

Dozens of excellent color photos of this exotic country.

Trade & Travel Publications, Ltd. The South American Handbook. Annual publication, including Central America and the Caribbean.

Wright, Ronald. Cut Stones & Crossroads. Viking Press, 1984.

A travelogue through the backroads of Peru. Especially insightful because the author speaks the Ouechua Indian language.

BROADCASTING PERIODICALS & SPECIFIC ARTICLES

ABU Technical Review.

Technical development in radio and TV broadcasting, especially in developing countries.

Alisky, Marvin. "Early Mexican Broadcasting." <u>Hispanic American Historical Review</u>, vol. 34, #4, 1954.

Asian Broadcasting.

A monthly mentioned in some bibliographies.

Craig, Stephen. "American Forces Network in the Cold War: Military Broadcasting in Postwar Germany." Journal of Broadcasting and Electronic Media. Summer, 1988.

Gwyn, Robert J. "Rural Radio in Bolivia: A Case Study." <u>Journal of Communication</u>. Spring, 1983. Hall, James L. and Drew McDaniel. "The Regular Shortwave Listener in the U.S." <u>Journal of Broadcasting</u>. Volume 19, 1975.

Intermedia.

Published by the International Institute of Communications in London.

Kushner, James. "African Liberation Broadcasting." <u>Journal of Broadcasting</u>. Summer, 1974.

OIRT.

A review published by the International Radio and Television Organization in Prague.

Studies of Broadcasting.

This is an annual publication of the Broadcasting Culture Research Institute of NHK and focuses mainly on broadcasting in Japan, with occasional features from elsewhere.

Telecommunication Journal.

Journal of the ITU.

Wood, Richard. "Language Choice in Transnational Radio Broadcasting." <u>Journal of Communication</u>. Spring, 1979.

MEDIA, CULTURE AND SOCIETY.

<u>Chasqui</u>: Published in Quito, this Spanish language quarterly focuses on Latin American

<u>Communicacion y Cultura</u>. Another Spanish language journal, which supposedly had several articles same name.

Revista Boliviana de Communicacion: An issue of Chasqui had a short review of the October, 1986 (#9) issue of this journal, which focused on radio in Bolivia.

Communicacion y Cultura. Another Spanish language journal, which supposedly had several on Bolivian radio in its July, 1982 (#8) issue.

BIBLIOGRAPHIES

The <u>Journal of Broadcasting</u> has published a number of lengthy area and subject specific bibliographies, such as the following:

Africa: Volume 20, p 381-416. Asia: Volume 19, p. 321-340.

Eastern Europe: Volume 22, p 107-130.

Caribbean: Volume 20, p 111-126.

History of Broadcasting: Volume 7, p 247.

Industrially Dev'd Nations: Volume 19, p 341-354.

Latin America: Volume 22, p196-240. Middle East: Volume 21, p 498-510. Pacific Islands: Volume 21, p 215-233. Religious B'casting: Vol. 9, p249-279

Vol. 10, p163-180, p257-276.