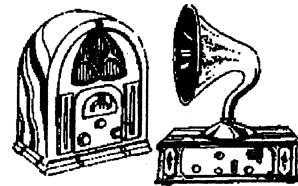


Vintage Radio

by PETER LANKSHEAR



Vintage reading matter and references

Despite the growing interest in vintage radio worldwide, there is now a whole generation of engineers and technicians without first-hand experience of valve equipment. Fortunately there is an enormous array of suitable literature available to the vintage enthusiast who wishes to find out more about what might otherwise become a 'lost' technology. Another important field of interesting reading is the history of radio.

Complimenting the large number of current electronics publications is the rich store of books, magazines, catalogues, promotional material and manuals that has survived from the past.

Although there are plenty of general-interest electronics magazines, by reason of the specialised nature of vintage radio there are few publications on public sale dedicated entirely to this subject. Great Britain's *Radio Bygones*, published with about 32 pages six times a year, is one. I would point out though, that this excellent publication concentrates on English, European and military equipment and costs about \$50 Australian, for six copies posted. However, we are well served by general coverage electronics magazines featuring regular articles and columns on the subject, *Electronics Australia* being a prime example.

Locally, the bulletins of the Historic Radio Society of Australia and the New Zealand Vintage Radio Society are pro-

ductions devoted entirely to vintage radio. Published quarterly for members, these are valuable sources of reference material and are especially popular for their 'Wanted' and 'For Sale' sections. They are in fact essential to the continued success of their Societies.

Modern books

In addition to the magazines there is a good range of vintage radio reference books available, although the majority do not deal specifically with the Australasian scene. Books with international recognition that do have local application and can be thoroughly recommended are the trio from John Stokes, founding editor of the *NZVRS Bulletin*. These are *70 Years of Radio Tubes & Valves*, *The Golden Age of Radio in the Home* and with an Australian emphasis, *More Golden Age of Radio*.

British publications are generally of a high standard, although the radios de-

scribed are not often seen in Australia. For readers with an interest in American equipment, there is a wide selection of titles available — although some do seem to have been written by opportunists, who, without any great depth of knowledge, are taking advantage of the current wide interest in vintage radio.

One major feature of American vintage radio publishing, of considerable interest to the historian, is the quality reprinting of manuals and booklets of the 1920's and 30's. These new/old books are excellent reproductions and make available material to which most readers would not otherwise have access. A related and valuable service is the photocopying of circuits and service data of receivers provided by some firms, and through the societies to their members. Some excellent colour calendars featuring radio cabinets are being produced.

So far we have dealt with examples of current publications, but there is an enormous amount of material of importance available to the enthusiast who is prepared to spend some effort in tracking it down. Locating old books, magazines, manuals and brochures can be as exciting and satisfying as hunting for radios themselves — and to many historians, of greater value.

Old textbooks

A major part of serious radio collecting is the repair of receivers, and an appreciation of their technical qualities. This requires a good knowledge of the theory of receiver operation, and one of the best sources of information is old textbooks. Fortunately there were many excellent books written over the years, and a look out should be kept for these.

One popular series has been the American Radio Relay League (ARRL) an-

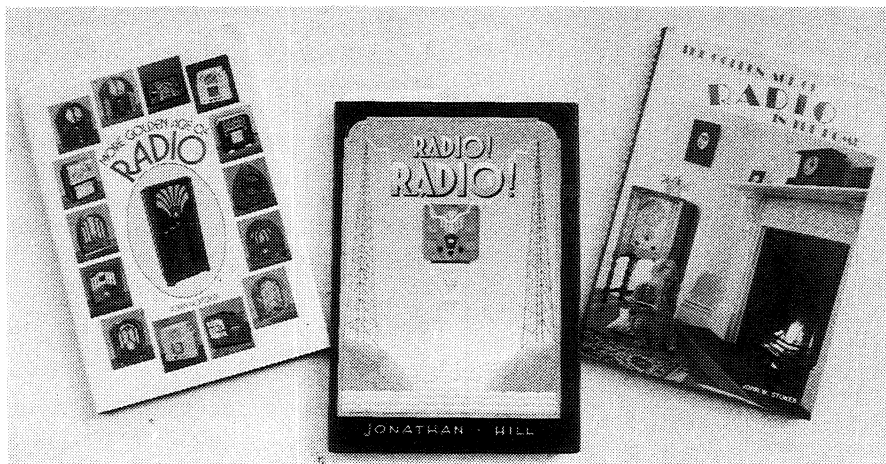


Fig.1: Containing hundreds of photographs and descriptions, these books are invaluable for identifying and dating receivers. 'Radio! Radio!' concentrates on British models, but John Stokes' books are written for Australasian collectors and provide a comprehensive coverage and history of locally sold radios.



Fig.2: There can be few books that underwent such dramatic revisions as the *Radiotron Designer's Handbook*. In 20 years it progressed from the slim collection of data sheets in Volume 2, at left, through the popular Volume 3 (centre) to the monumental Volume 4 at right — which had at least four reprints and became a world classic.

nual *Radio Amateur's Handbook*. Editions from the first, in 1926, to about 1960 or even later have very readable sections covering the operation and building of valve radio receivers. The Radio Society of Great Britain (RSGB) produced four editions of their *Radio Communication Handbook* between 1938 and 1968. More 'in depth' technically than the American equivalent, these were well written and can be recommended. For the experienced constructor, the 4th edition even has instructions for the building of a 20 valve, double-conversion communications receiver!

Valve data manuals

Very useful manuals were published regularly by the major valve manufacturers. Editions of RCA's *Receiving Tube Manual* appeared from about 1930 to the late 1960's, and as well as providing comprehensive data on valves, contain valuable reference sections including valve operation and applications.

AWV and Philips both issued Australian valve manuals. Philips published a large selection of reference books and for about 30 years, AWV widely distributed *Radiotronics*, featuring authoritative news about the latest Australian valve and circuit design developments.

For the restorer and the student, volumes of circuits which were published annually for the servicing industry are invaluable. Australian publications of the 1930's were the *Australian Radio Trade Annual* and the *Australian Official Radio*

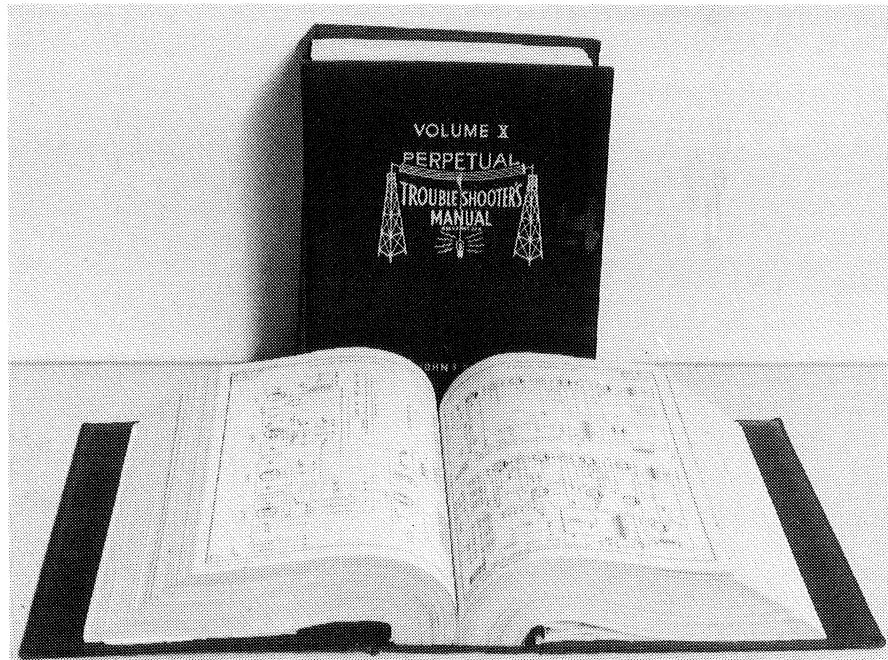


Fig.3: For many years, John F. Rider produced his annual issues of the *Perpetual Troubleshooters Manual*. Containing manufacturer's data on practically every American receiver, these very widely distributed and substantial manuals are now an invaluable reference for collectors and historians.

Service Manual. These are now often the only source of information about early Australian receivers.

Except for Volume One, which includes pre-1930 equipment, of less direct interest to the Australian enthusiast but in a class of their own are the American *Perpetual Trouble Shooter's Manuals*, published by John F. Rider. Brought out annually for many years, these contain in easily removable loose-leaf form, circuits and data on possibly 95% of all radios made in the USA. They are not small though, as many volumes contain something like 2000 A4 pages of circuits and information. A very similar series, but including Canadian receivers was *The Official Radio Service Manual* compiled by Hugo Gernsback's organisation.

For the serious student there are the Radio Engineering textbooks written by F.E. Terman and published by McGraw-Hill. These were standard reference books for several generations of engineers and students, and include *Fundamentals of Radio*, *Radio Engineering*, *Radio Engineers' Handbook* and *Measurements in Radio Engineering*.

The early years of British hobby radio were dominated by the legendary John Scott-Taggart, a prolific writer whose 'ST' designs appeared regularly and were built with enthusiasm by an army of home constructors. From the British publishing firms of Iliffe and Newnes came a large selection of excellent radio books featuring F.J. Camm, W.T. Cock-

ing, M.G. Scroggie, and 'Cathode Ray', all prolific writers during the 'golden years' of radio.

It is impossible to do full justice to the vast quantity of material written during the valve era, but two specialist American authors of radio servicing books must be mentioned. John F. Rider, whose manuals have already been mentioned, and Alfred A. Ghirardi were two outstanding writers for the serviceman and books by both are always good value.

For a very readable technical history of radio in Australia from 'someone who was there', keep a look out for Winston T. Muscio's *Australian Radio, the Technical Story 1923-83*. Winston spent the better part of 50 years as an engineer for STC, and has a wealth of knowledge of the Australian electronics industry.

'Desert Island' book

For many years, a popular BBC radio programme was 'Desert Island Discs', when each week a celebrity was invited to imagine that he/she was confined to a desert island and was permitted to have just one gramophone record. Their choice obviously was made carefully, as it had to provide lasting interest and satisfaction.

If, rather than selecting a recording, I was asked to nominate a Desert Island Radio Book, I would without hesitation nominate the fourth edition of the *Radiotron Designer's Handbook*. This remarkable Australian publication was

VINTAGE RADIO

the culmination of more than 20 years work by Fritz Langford-Smith of AWV and his team (which had earlier included EA columnist and former Editor Neville Williams). There is no other work that approaches the fourth edition of 'RDH' for its scope, covering practically every aspect of valve receiver technology.

The first edition of 1934 and the second a year later were booklets that were essentially collections of useful data, volume 2 selling for 1/- (10 cents).

First appearing in 1940, volume three was a comprehensive textbook with chapters and index and was much enlarged to 352 pages. It was sold internationally, the American edition having the RCA logo on the cover. By 1944, it had reached the 10th reprint and more than a quarter of a million copies had been sold.

While volume three deals concisely with most aspects of receiver design, the real opus is volume four, running to nearly 1500 pages and first published in 1954. This was an immediate success and within three years had run into five reprints, plus an overseas edition.

Although it has been out of print for many years, for the serious student volume four of the RDH is well worth searching for. Every conceivable topic is dealt with in a very readable manner, so that the summaries are readily understood by the student and yet the maths are presented for the engineer who likes to work from first principles.

Old magazines

For many radio historians, the greatest finds of all are old radio magazines. Not



Fig.4: Magazines are a great source of information for the vintage radio enthusiast. This selection has copies from America, Britain, Australia and New Zealand. In 1932, Wireless Weekly (the ancestor of EA) cost only three pence!

only do they provide a wealth of information about contemporary technical developments and projects, but the advertisements are invaluable for accurate dating and identification of equipment. Given radio's popularity in the 1920's and 30's, it is not surprising that the number of dedicated magazines was considerable, and it is neither possible nor really necessary to suggest more than a few of the better known examples.

Local productions

Locally there were some world class productions. Australia's leading publication was of course EA's own ancestor *Wireless Weekly*, later known as *Radio & Hobbies*. New Zealand had the *NZ Radio Times* and the *Radio Record* which for several years around 1930 also produced an annual digest of circuits and data.

Britain, where radio was a very popular hobby, was the source of many hobby radio magazines such as *Popular Wireless*, but *Wireless World* is the outstanding example. Possibly the oldest radio magazine still in production, it had its origins before World War I in Marconi's company magazine. *WW* has always been an authoritative source of information and at the leading edge of technology. For example, it introduced the world to the Williamson amplifier and the Baxendall negative feedback tone control, designs which had a profound effect on the audio industry.

America, not surprisingly, has been the source of a vast number of radio magazines. One of the longest running, and

probably with the most readily available back issues is *QST*. Published by the ARRL, *QST* is amateur radio's premiere periodical and despite its communications bias, is a great source of historic information.

One group of American radio magazines, is worth special mention. Hugo Gernsback, originally from Luxembourg, was a pioneer and most prolific publisher for half a century, concentrating on the repair and hobby areas with several popular magazines including *Radio News*, *Radio Craft* (later *Radio-Electronics*), *Shortwave & Television*, *Shortwave Craft* and *Radio & Television*.

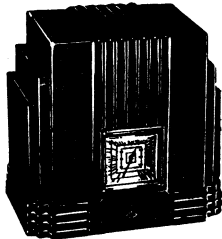
Finding them...

Unfortunately it is not a matter of ordering old books from your favourite book store! Tracking them down can be as exciting and rewarding as finding old equipment. Auctions, garage sales and second-hand book and magazine shops are an obvious source, and it is a good idea to let their proprietors know about your interest. Bazaars and book sales organised by service organisations often turn up interesting finds, and are well worth visiting.

The 'For Sale' sections of the vintage radio society bulletins frequently advertise books and magazines. It is my experience that many hams are reluctant to throw out old magazines, and can be a good source especially if they know that the material is going to a 'good home'.

Libraries in large cities often keep past volumes of the major magazines and

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publications in their archives, and can be a valuable source of research material.

Names & Addresses

Fortunately there is a good supply of currently available books and reproductions stocked by specialist firms. Two American sources are the Antique Electronic Supply of 6221 S. Maple Avenue, Tempe, Arizona 85283, and the Vestal Press, PO Box 97, Vestal, New York 13851-0097, USA. These firms both publish illustrated catalogues, and accept the popular credit cards.

For those who would like to subscribe to the specialist UK magazine *Radio By-gones*, mentioned earlier, its address is 9 Wetherby Close, Broadstone, Dorset BH18 8JB, England. One year's airmail subscription is currently £23, and payment must be made in either Sterling or via Mastercard or Visa cards.

There are several Australian stockists of the more popular vintage radio publications, and advertisements appear regularly in *EA*. Three such organisations are: Orpheus Radio, R.S.D. B98, Ballarat Victoria 3352; Resurrection Radio, 51 Chapel Street, PO Box 1116, Windsor, Victoria 3181; and Nostalgic Wireless Co., 112 Union Road, Surrey Hills, Melbourne 3127. ❖

Collector's Corner

Where readers display prized items of radios and other equipment from their collections, and/or seek information from other collectors...

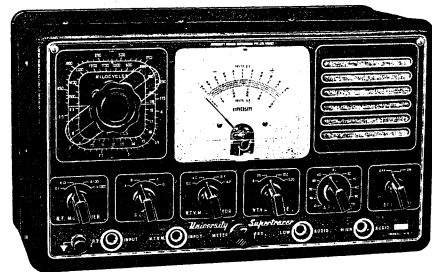
Thanks for your help!

There's no doubt about the wealth of information possessed by EA's readers, and their generosity in sharing it. Two readers responded almost immediately to my own request in the April column, for a circuit and other information on an old AWA RF Signal Generator, type 3R7231. Mr Frank Rose of Umina in NSW sent a circuit and parts list for me to copy, while Mr John Manns of the Nostalgic Wireless Company in Surrey Hills, Victoria sent me a complete manual to copy. My grateful thanks to both, for sharing this information.

Circuits, data wanted

Actually John Manns himself is in need of data, on a University Signal Tracer model AST (circa 1959). He's planning to restore it eventually, as a retirement project, and has found it difficult to track down a manual or even a circuit. Can anyone help, please? I'm reproducing a picture of it here, in case this helps someone identify the model.

Mr Gerald Micallef of Kogarah in NSW is keen to get hold of an operating manual, or



at least a circuit, for a 5" Wideband CRO made by ACE Radio of Newtown in the 1960's. He's prepared to buy the manual if necessary, or borrow and photocopy it.

Finally, for this month, Mr Max Gill of Gordon in NSW is trying to track down either the manuals or circuits for an HP type 425A DC Microvoltmeter, and a Rohde & Schwarz UHF Signal Generator type SDAF. Mr Gill also advises that my AWA 3R7231 generator was a copy of the old wartime version of the Marconi TF144 — thanks, Mr Gill.

If anyone can help Mr Manns, Mr Micallef or Mr Gill, please send the information to me and I'll pass it on to them. (J.R.)