

40 YEARS' TELEVISION FROM THE BBC

BBC Television celebrated 40 years of broadcasting (1936–76), in November, with a programme, 'The Birth of Television', devoted to the early pioneering period of the 1920's and 30's. The programme included live contributions from a number of the earliest workers. Among these was TONY BRIDGEWATER, former Chief Engineer, BBC Television, and a co-worker with John Logie Baird. DENIS GURTON talks to him about those early days and some current impressions.

D.G. *I did not realise until I saw the programme that the Baird system of television was in use for as long as eight years from 1929 to 1937. Surely, this clearly marks Baird out as the first in the field, both as to his invention and the fact that it was used for public broadcasting?*

T.B. Oh, yes, there can be no question that this was so. Although during that period—the latter part—say from 1933 or so onwards, there was intense activity towards better ways of doing it, both by RCA in the US and EMI in this country. You see, the limitations were so marked with the Baird system that it was felt there ought to be other and better ways. And so development towards an electronic system as pointed by Campbell-Swinton in 1908 was undertaken very seriously.

D.G. *I believe a major limitation of the Baird system was the line limitation?*

T.B. Yes, this is true, and once EMI had produced electronic cameras

Baird knew he was being overtaken. He made desperate efforts to catch up and got to 240 lines with telecine machines. But even then studio demands could never be properly catered for by his cameras, even when he tried to supplement with intermediate film. In spite of this he managed to hold on until 1937 and at the outset at Alexandra Palace the BBC was operating two systems—Baird's and EMI's.

D.G. *Before we leave Baird I would like to get one other thing clear. From the time he started transmitting for public viewing—using the BBC sound transmitters whenever he could—who paid?*

T.B. Baird, as far as I know. Possibly the BBC paid the small costs of the lines and for running their transmitters overtime. But I can think of no fee paid by the BBC. Baird certainly paid the artists and for all the studio facilities. Of course he did sell something like 1,000 television sets at £25 each, but this was not a great deal of money even in those days. Obviously he did it all to gain publicity for the system until he finally got the BBC to take it over in 1932. It was then that the first recognised production side came into existence as distinct from an entirely engineering orientated team, with Eustace Robb engaging artists and producing programmes.

D.G. *Were the BBC enthusiastic about it?*

T.B. No, there was considerable reticence on their part. I think they were genuinely frightened because they did not want to take something on in which they had not quite enough faith, but they were pushed by Baird and eventually the Postmaster-General, who to some extent came to Baird's aid.

D.G. *I believe 1936 (and the BBC's 40 years picks up from then) was the real turning-point? By this time EMI had made considerable progress with their equipment and the move into Alexandra Palace and the experience gained to date made a good starting-point?*

T.B. Yes, by that time we knew something of operational practices such as lighting, optics, microphone techniques etc., and much of the technology. We had mastered some of the early production techniques and learned the ways of the artists! I personally do not regret the very early days because although there was a time when due to all the limitations we could not see television overtaking sound. Looking back it gave us a good preparation for our future role. It was a valuable nursery slope.

D.G. *Would you say that the relationship in those early days between production people and the engineers was better than it is today?*

T.B. It was always pretty good in television and in general I would say it is very much better today. Of course a certain amount of this basic dichotomy goes back to the early days of sound broadcasting when there was little common ground possible between the engineers and the broadcasters. But from the beginning television has needed a close rapport.

D.G. *You think you had the best of it during your day?*

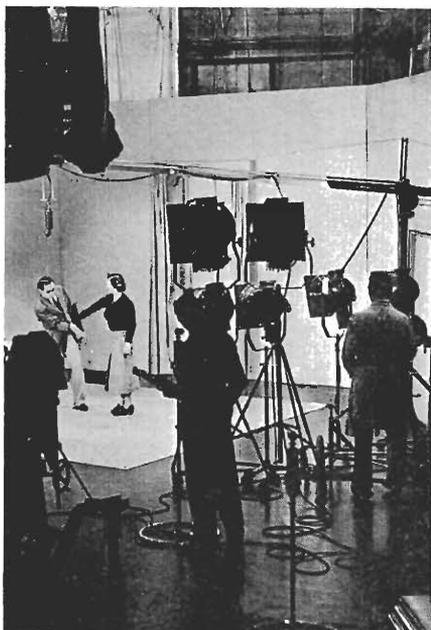
T.B. I have no doubt about that. They were very challenging and stimulating times and we were constantly faced with new demands and the need to produce new techniques to meet those demands.

D.G. *There are still challenges and demands today, of course. But what is left? Why celebrate 40 years?*

T.B. I don't really know beyond the fact that I cannot see any new great changes in the next ten years, for example. Mind you, who would have thought that it would have progressed so fast? There might have been a time when we thought it was going to take 100 years to get to the present state of development.

D.G. *How do you see its spread? Could you, for example, ever have foreseen the great expansion which took place after the war?*

T.B. No. Nobody could have anticipated either its perfection or penetration; penetration all over the world.



The art of self-defence, Ju-Jitsu, with Bob Gregory and partners in an early BBC TV programme using the Baird system, in December 1936

D.G. As one of the television pioneers would you now see its influence as a good or bad thing, bearing in mind its enormous impact?

T.B. I should not like to live without it.

D.G. Has it, say, not been an entirely good influence?

T.B. I don't know. I think some of it might have been bad for children. 'Dr Who', for example, quite frightens me, but my grandson of four seems to take it all in his stride.

D.G. Would you say it had harmed people—in their development for example?

T.B. It has certainly become a substitute for playing games, making music, doing things for oneself. But there are so many good things about it. How does one measure either way?

D.G. As a BBC man, do you think the coming into existence of ITV was a good thing?

T.B. I think if it hadn't happened we should have soldiered on quite happily. But there have been some advantages and benefits, and provided the commercial influence does not extend to US levels, the competition may be a good thing.

D.G. Do you watch ITV?

T.B. No, hardly ever. If the programmes were in the *Radio Times* we might get to know what's on. But we don't take the *TV Times*. Anyway, I don't think I would often find what I want early enough in the evening on ITV.

D.G. But if you don't look in, you are hardly in a position to comment.

T.B. No. I would say that 90% of my viewing has always been BBC.

D.G. Obviously you would be quite happy to do it all over again?

T.B. Oh, yes, I think we all would.

D.G. Would you feel that a young man going into the engineering side, say today, would get much excitement? Could he expect much in the way of new developments?

T.B. No. I think now it would be more of a job than a vocation—not necessarily more interesting than, say, working on computers, space projects or other modern electronic applications.

D.G. What was your most difficult time do you think?

T.B. It's hard to pick out, but a specially difficult period was the launching of BBC-2, coupled with the introduction of 625 lines on UHF while still retaining the 405. Training new staff and manning problems also combined to complicate matters and it did all stretch us a bit.

D.G. Looking back at the major milestones, how would you see them?

T.B. Well, I think the start of the 405 line system, both in the studio and for outside broadcasts was the biggest of all. This was followed by the spread of the service throughout the country plus in reverse the ability to pick up programmes anywhere.

Below, Leslie Mitchell interviewing from Alexandra Palace (Dec. '36) for the programme 'Picture Page'. Right, two 'Hello' girls—Jane Cain, the 'girl with the golden voice', and Joan Miller, the 'Switchboard Girl'



Then I think one stage which excited me a great deal was the first broadcast outside the UK which we transmitted from Calais in 1950. This really was the beginning of the Eurovision link with the Continent, followed by the Coronation in 1953, coinciding with the start of television in Holland, Switzerland, Germany (France had already started); and the rest of the European countries soon following.

Then I think the recording of television first on film and then on tape.

In 1955 the advent of ITV demanded a new range of wavelengths so new sets and aerials were required.

In 1964 came BBC-2, accompanied by big innovations and 625 lines UHF, both of which required new sets, and this time there were many more transmitting stations. Later, BBC-1 was also changed to the new standards.

During this time there were, of course, transitional problems, e.g. standards conversion. About then satellites came into existence—originally for Post Office communications—opening up the way for even more

exciting programme possibilities. By 1967 colour arrived and this was added to the 625 lines both by the BBC and ITV. This was an enormous advance, first pioneered in the USA but later improvements and alterations were made in Europe, particularly in Germany and France. But, alas, there was no international standard.

D.G. So much for the milestones. What about a brief peep at the future?

T.B. We may see a greatly extended use of satellites both for distribution and broadcasting, perhaps largely in developing countries. Also there is likely to be a progressive replacement of film by electronic cameras and video-tape. It is already on the way.

Generally there will be a gradual simplification and consolidation analogous to radio. Domestic television receivers could become shallower, and perhaps with even larger screens.

D.G. With the costs of receivers still going down?

T.B. Why not? The electronics industry sets a very good example in this!



Sophie Tucker in 'Starlight', another of the early programmes from Alexandra Palace