

Fig. 1. The photograph that directly gave rise to identification of the performers and the performance. These are the Paramount Astoria Girls rehearsing for the programme on the disc.



In last month's issue, **Don McLean** described the BBC's first television service and the earliest-known recording of broadcast television. This month Don reveals how he restored that video recording.

## Looking in...

In August 1932, after three years of experimental television broadcasting by John Logie Baird, the BBC's first Television Service started on the low-definition 30-line format.

No means of high quality video recording was available and no professional broadcast video recordings exist from this period. Some viewers, however, tried recording the broadcast video signal onto audio discs.

In April 1933, a mere eight months after the start of BBC tv broadcasting, one viewer recorded part of a famous pioneering programme – the world's first television revue.

### Dancing girls

The key to identifying the recording was an 80-second segment of a 'high-kicking' dance group. By chance, I recognised them by their costumes in a

photograph, **Fig. 1**, in a magazine<sup>1</sup> that reviewed the highlights of 1933. Ray Herbert identified the dance group in the photograph as the Paramount Astoria Girls and Nicholas Moss of the BBC was able to retrieve the only two dates<sup>2</sup> in 1933 when they performed.

Matching up the programme with what I could see from the disc confirmed the programme was transmitted on 21 April 1933 from the small television studio BB in the sub-basement of BBC Broadcasting House. This was a television special called "Looking In" – the world's first television revue produced by Eustace Robb.

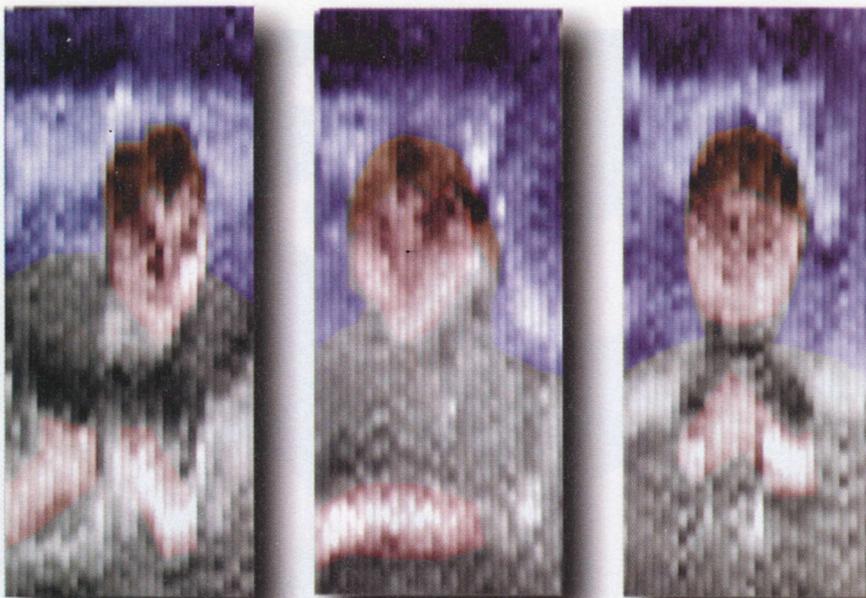
### A myth challenged

Despite its poor quality, this recording is arguably even more important than Baird's experimental television recordings back in 1927-28. It lets us see

exactly what the public saw in the early thirties. And what they saw has come as a great surprise: fast-paced entertainment, full of movement.

At the start of a sequence totalling four minutes there's a caption brought towards the camera in a 'zooming' action. Then five individual presenters make their introductions, **Fig. 2**. Each of six dancers next gives a 'cameo' head and shoulders introduction. Finally there is a long-shot eighty second dance routine, **Fig. 3**. This is followed by an announcer, **Fig. 4**.

Each of the twelve performers and presenters, **Fig. 5**, are in shot for no more than twenty seconds – long enough to be recognised but not so long that the viewers get bored. This is unique to 30-line television and would not be out of place in a fast-moving production today.



2nd Presenter

3rd Presenter

4th Presenter

Fig. 2. The second, third and fourth presenters from the start of the recording. These and other stills from the disc are difficult to recognise and have been colour-tinted to aid recognition. Such poor quality pictures are more to do with the crudeness of the home recorder than the quality of the received video signal.

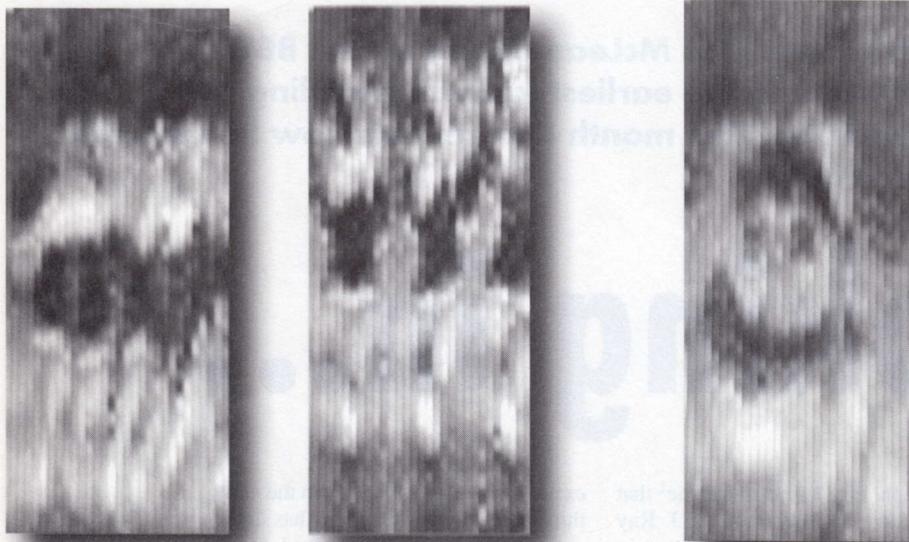


Fig. 3. Two single frames of the Paramount Astoria Girls in long shot during their dance number. As with the other stills shown here, the action and subjects become clear and recognisable when the pictures are shown as a video sequence.

Fig. 4. This unknown presenter appears a few seconds before the end of the recording and just after the dance sequence.

## What the critics said

"Looking In" was important enough to be cited by Swift (1950),<sup>3</sup> though his dismissive remarks do not match what we see today. Ross (1961)<sup>4</sup> also cites this programme but prints a scathing *Daily Telegraph* review of its technical quality. Viewer's reports on the programme were, by contrast, very positive – and not included by either author.

The evidence we have on the disc does not fit well with what these eminent BBC authors have written. Today, we have the benefit of being truly objective about this historic programme rather than having, as they did, to rely on twenty year-old hearsay to describe it.

What this disc has shown us is that, although technically constrained, 30-line BBC Television was packed with action and as professional and as professionally produced as its higher definition successor.

## Production features

In 1933, the 'camera' being used, Fig. 6, was based on a mirror-drum. This was a cylinder with 30 angled mirrors around its circumference.

The sensitivity and size of the photocells dictated that the most efficient arrangement was to reverse lighting and sensors. The mirror-drum sprayed a raster of intense light into a pitch-black studio and the photocells, mounted where the lights would have been, were fed to a mixing panel in the control room.

The camera could pan across the field-of-view but could not easily be adjusted for tilt.<sup>5</sup> Hence for each of the performers we can tell their relative heights. Indeed we can see that the dancers were all much shorter than the other performers as their heads only just appear in frame, Fig. 7.

When the girls dance in a line, we get a perfect example of that bugbear of amateur home videos – 'hose-piping' – panning left and right across the girls, Fig. 8.

The producer used two types of shots: the long-shot for the dancers and the medium close-up of the performers from waist-height up. This loose shot allows us to see not just hand gestures of the presenters but also the heads of the height-challenged dancing girls, Fig. 7.

From the action on the disc, the studio had a movable curtain for close-ups. This obscured the long-shot background – probably for scene changing – and came down to about waist height. Each of the performers entered and exited not from the left or right, but unusually from below, from underneath this curtain.

Viewers from around the country described detail<sup>6</sup> that the disc has not been able to capture. The recording, Fig. 9, is but a pale echo of the received transmission and can merely hint at what people saw.

If a television producer today had just one television camera that could only pan, had no zoom and was fixed to the floor, and if he were told to make a live 30-minute programme, I would be surprised if he could better the efforts of the BBC in 1933.

## Movement – the key to clarity

The technical quality of the BBC 30-line transmissions was in itself excellent. However, 30 lines are only barely adequate to represent people and not suitable as a broadcast medium for any more complex or obscure subjects.

When we watch restored 30-line programmes, there appears to be much more information present than 30 lines could possibly convey. For facial and body movement, our brain fills in and 'builds up' the detail. We see, and



Fig. 5. Iris Kirkwhite was one of the presenter/performers on the disc. She appeared often on early BBC Television and was renowned for her toe-tap dancing.



Fig. 7. One of the taller Paramount Astoria Girls appearing just in frame. This image has been colour-tinted to aid understanding.

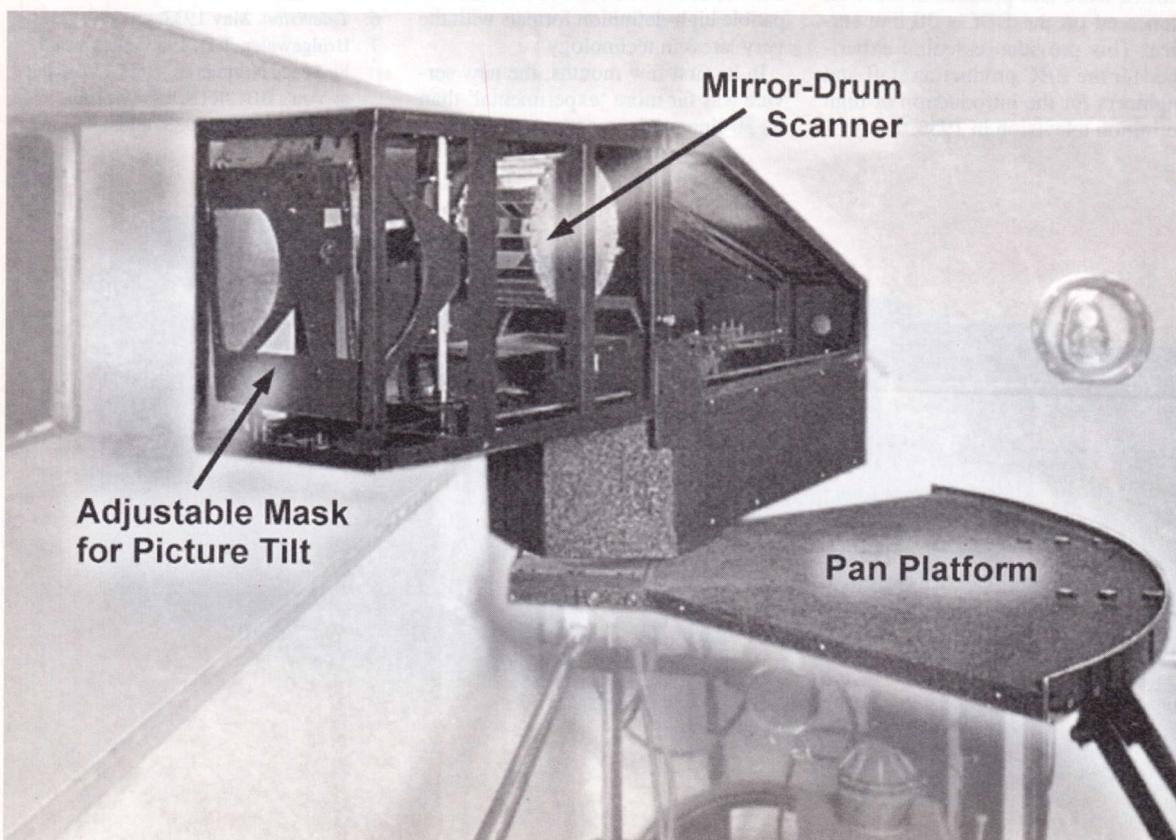


Fig. 6. The spotlight 'camera' in Studio BB of Broadcasting House. This projected a brilliant white raster into the darkened studio. Photocells, positioned as lights, fed the video signal into the control room. The camera rests on a platform allowing only panning. Moving the mask on the left adjusted tilt. Unfortunately this also altered the video timing.



**Fig. 8.** A publicity shot of the Paramount Astoria Girls made at the time of the recording. The images off disc do not resolve a chequer-board floor pattern.

**Fig. 9.** A sequence of the Paramount Astoria Girls from the vision-only disc. The period between the girls' high kicks is 760ms giving a tempo for the music of 79 beats/min.

more importantly recognise, the events in the studio through the limitations of the system.

Low-definition television becomes more effective the more movement there is. From the "Looking In" disc, the producer, Eustace Robb, understood very well the limitations of the 30-line system and exploited movement to increase its impact.

Indeed, the techniques of lighting, camera work and production were all pioneered on the BBC's 30-line service. This provided essential experience for the BBC production staff and engineers for the introduction of high definition television in 1936.<sup>7</sup>

### The first age of tv ends

Developments and demonstrations in electronically scanned television lead to the BBC's 30-line Television Service being stopped in 1935. The viewing public were keen for transmissions to continue, even in parallel with a high-resolution service.

The service closed however on 11 September 1935. Less than a year later, the BBC started its second Television Service in not one but two new incompatible high-definition formats with the very latest in technology.

In its first few months, the new service was far more 'experimental' than its 30-line predecessor.

### In summary

For now, the amateur video recording of part of a BBC programme has the accolade of being the earliest-known recording of BBC Television or indeed of any broadcast television service. As you might expect, our unknown viewer was selective about making video recordings on his 'write-once' aluminium discs.

Fortunately, he chose for us the world's first television revue, giving us a marvellous opportunity to share in a historic event. Although he could not have known it at the time, he made the world's oldest time-shifted home video recording in 1933 – not to be seen again for 63 years.

The last word will go to a viewer in London, who, after watching the high-kicking Paramount Astoria Girls in this programme, made this comment on the future of television – "Sound without sight lacks kick".<sup>8</sup>

My thanks to Dave Mason, Eliot Levin, Ray Herbert and Nicholas Moss for helping me make this discovery. ■

### References

1. *Television*, January 1934, p. 18.
2. Via the BBC Written Archives Centre at Caversham.
3. Swift J, 'Adventure in Vision', Lehmann, 1950 p. 58. Incorrect reference to Paramount Victoria Girls.
4. Ross G, 'Television Jubilee', W H Allen, 1961 p. 24.
5. Bridgewater, T H, 1986, private communication.
6. *Television*, May 1933, pp. 170-171.
7. Bridgewater, T H, 1983 interviewed by Bruce Norman in 'Here's Looking at You', BBC/RTS, 1984 p. 109.
8. *Television*, May 1933, *ibid*.

