Science Communication and Public Engagement
Faraday's Royal Institution

Narrator:
In 1837 Faraday transformed the very ordinary domestic facade of the Royal Institution by adding Corinthian columns along its length. He wanted to make science appear authoritative by placing it firmly in the classical tradition. This provided the setting for the RI's efforts to disseminate science to a wide audience.

Professor Frank James:
Faraday welcomed that opportunity to engage the public to develop scientific knowledge…er… and place that in a public domain and that's ... that's really the reasons why he sets up the Christmas Lectures in the 1820s, why he sets up the Friday evening discourses. He is very concerned about the state of public education in science.

Narrator:
Scientific presentation was already an established part of London's social life.

Dr Isobel Falconer:
Science as popular entertainment had quite a long history. We see this through the 18th Century when you got popular science lecturers, giving lectures in coffee houses and giving lectures in polite soirees. The lecturers, by and large were in this for the money. They got paid to lecture; they hoped to attract patrons who would, yeah, then, … um, finance their ongoing work. So they made their lecture demonstrations as exciting and dramatic as possible.

Narrator:
Friday evening discourses attracted a smart London set seeking both self improvement and entertainment.

Baroness Susan Greenfield:
He was competing with theatre, with musical soirees with fireworks displays for an audience and the Friday evening discourses developed quite a ritual.

Professor Frank James:
People come in their evening dress, white tie and they would go into the Royal Institution, into the main grand entrance hall, up the imperial staircase and make their way on the first floor round to the lecture theatre.

Dr Isobel Falconer:
The audience all had to be in their seats by nine and then the doors to the lecture theatre would open and the lecturer would walk in and the lecturer would talk for an hour to the dot and at ten o'clock he would exit, no questions allowed or anything. Friday evening discourses were so successful that Albermarle Street had to be made one way. It was the first one way street in London.

Professor Frank James:
The atmosphere must have been extremely exciting indeed. Lecturers like Faraday could attract an audience of a 1,000 in the lecture theatre.

Dr Isobel Falconer:
You get a lot of accounts, particularly by women of his charisma as a lecturer. They talk about his flashing eyes and his lively movements and this sort of thing.

Baroness Susan Greenfield:
Now this was a carefully cultivated image. You see him carefully looking at the effect that a lecturer had on the audience and the way the lecturer achieved those effects on the audience. He invested quite a bit of his money on elocution lessons. The lessons included how to use your eyes, how to use your hands, what sort of gestures you could use that would make it appear that you were actually putting facts and presenting facts in front of the audience.

Professor Frank James:
Faraday is very keen to portray science or scientific knowledge as independent of the presenter, he wants to sort of make himself the medium through which nature talks directly to an audience. One of the characteristics of discourses is that they were demonstration lectures, you should demonstrate to the audience the scientific principles that you were seeking to explain to them. Faraday was a past master of that.

Dr Isobel Falconer:
He came across to the audience as very natural and dynamic, but it was very rehearsed, he put an immense amount of preparation into the experiments.

Professor Frank James:
Taking a discovery from the laboratory in the basement to the lecture theatre on the first floor was actually quite an interesting process in expanding the phenomenon so that people en masse could see it.

Dr Isobel Falconer:
And a lot of his phenomena relied on very close observation, very tiny effects and he had to make those visible to an audience of a thousand or so.

Professor Frank James:
He developed techniques of background projection, so for example he wants to show a needle being deflected, puts light in front of the needle and casts its shadow on to a screen behind, so that the audience can see the needle flick when an electric current passes through it.

Dr Isobel Falconer:
Just as he tried to portray himself as a conduit for nature to speak to the audience, the experiments did so also. The emphasis was on the effects that the apparatus displayed.

Narrator:
Techniques like these were just part of a wider attempt to create a new image of science.

Dr Isobel Falconer:
People like Faraday were trying to construct an image of natural philosophy or of science as authoritative and they had to persuade the public that their way of doing things was the right way of doing things. We get this idea of the ... the gentleman of science whose credibility relied upon adherence to a creed of gentlemanly behaviour. Now Faraday wasn't a gentleman of science, he wasn't born into the right class and he had quite a difficult role to play in adhering to the creed while not actually trying to be a gentleman.