



The Lumière Brothers: Auguste and Louis

# 1

## Founding Father

*Louis Lumière in conversation*

*with Georges Sadoul*

*Edited and translated by*

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### Introduction

Spring 1994. I have a new job, helping out in a French government agency set up to promote the centenary of film, *L'Association Premier Siècle du Cinéma*. France being France, this is a big deal. I am not quite sure what I have been hired to do. Somewhat unenthusiastically, I start rummaging through the shelves, familiarizing myself with all the videotapes people have sent in. I slot another VHS into the machine. There is no label to say what it is. Only the name of the distributor, 'Lobster Films, Paris', a firm which specializes in clearing out attics in search of old films.

An image appears on the screen. The sound is not quite in sync, the picture flickering black and white. The first words emerge: '*Monsieur Louis Lumière, dans quelles circonstances avez-vous commencé à vous intéresser aux photographies animées?*' ('Mr Louis Lumière, in what circumstances did your interest in animated photography arise?') And I realize what this is. This is the only extant television interview with the man who invented cinema, recorded on 6 January 1948.

The interview – a transcript of which is translated here in honour of the centenary – was published in France in the 1960s in book form. The original television and radio versions have almost never been seen or heard.

Many men, apart from Louis Lumière, have a claim on the title of founding father of cinema. Thomas Edison in America, for instance, or Max Skladanowski in Germany. But it was Lumière who designed, built and marketed the first all-round film machine, which worked as a camera, a projector and printer all at once. It was he who called it the 'cinematograph', the word by which in most countries the film business, or some aspect of it, is known today. And it was he who started the first continuous, fee-paying public screenings at the Grand Café in Paris just one hundred years ago.

Louis Lumière never expected cinema to be more than a passing fad (though, as he says in this interview, he was experimenting with 3-D films in 1935, forty years after the original invention). But because his camera doubled

as a projector, it laid the foundations of an industry. Within months of the first fee-paying public screening, on 28 December 1895, Lumière had sent projectionists all over the world – to Mexico and St Petersburg and Saigon – where they showed footage of France to pay for the cost of shooting pictures to send home. The new fad spread like wild fire.

Most of the 1,500 or so Lumière films which have survived (average length 40–50 seconds) are documentaries of exotic places, state visits, army training courses, of comic scenes from everyday life. The subject matter is rarely of much interest. But Louis Lumière was an accomplished photographer\* and he used this skill to develop cinematography of great modern beauty. The first fifty or so films in the catalogue were shot by him personally, and the rest by a handful of cameramen whom he trained. In this interview, Lumière denies he was ever a film director, but if he was not that, we can safely say he was the first *auteur*.

After the First World War, the Lumière film business declined, and the brothers' interest moved off in different directions, but the historical connection remained. When it was decided to hold a film festival in Cannes, it was thought that the president of the jury ought to be the man who, forty-five years earlier, had laid the foundations for the industry – Louis Lumière.

That was in early September 1939, quite possibly the worst timing there has ever been. War broke out, and the festival was postponed until 1946, by which time Lumière was too old to be president. Nevertheless, he attended the first Cannes Film Festival as a member of the public and there he met the historian of early cinema, Georges Sadoul. A few weeks later, Sadoul received a huge envelope through the post containing an alarming number of corrections to the definitive work he had just published.

Not long before these events, General de Gaulle had set up an organization called RTF designed to emulate or perhaps to rival the BBC. As it happened, Sadoul was on the staff of this organization, employed, partly at least, to experiment with a new form called television.

When he received Lumière's package, Sadoul did two things. He set about producing a revised edition of his book, and he decided to interview Louis Lumière for television. Perhaps the irony of it appealed to him. Here was the founding father of film, now almost on his death bed, just present at the birth of the next mass medium.

The old man had long refused to give any interviews, but on this occasion he agreed. He invited Sadoul and his wife to come and visit him at his house at Bandol, on the coast between Marseilles and Cannes, and said the television crew could come in after lunch. After a few technical mishaps, the interview

\*The original Lumière family business was manufacturing high quality photographic plates (the firm was eventually taken over by Ilford).

was recorded and Louis Lumière died very shortly afterwards.

The interview itself is strange, not at all what we think of as television. There is no attempt at naturalism. Louis Lumière reads from a prepared typescript, rather like a cautious lawyer giving a press statement after a difficult trial. He wears a suit and a medal of high rank in the Légion d'honneur, the French equivalent of a knighthood. It seems as though the occasional cutaways to the interviewer were added later, with spurious questions designed to dress up a formal statement as a conversation. Lumière's great age and frailty are obvious. The typescript shakes in his hand. His voice is cracked. But his determination to set the record straight is impressive. Here is a man who, in his lifetime, has seen the toy he invented become by far the most popular form of entertainment in the world, wanting to tell people how it all happened; the man who invented cinema, in at the start of television.

GEORGES SADOUL: *Mr Louis Lumière, in what circumstances did your interest in animated photography arise?*

LOUIS LUMIÈRE: My brother Auguste and I started work in the summer of 1894. At this time, Marey, Edison and Demeny had conducted useful research, but no one had yet projected images on to a screen. No one had found a way of driving film through a camera. My brother Auguste experimented with a serrated cylinder, similar to that used by Léon Bouilly in some other invention, but this system was too violent. It could not work and it never did.

GS: *Did Mr Auguste Lumière then suggest any other solutions to the problem?*

LL: No. My brother lost interest in the technical side of cinematography as soon as I had discovered a workable method of driving film through a camera. The patent was taken out by us jointly because we always took joint credit for research and patents, regardless of whether or not each of us had made a contribution. The fact is that I am the sole author of cinematography, just as my brother was sole author of other inventions patented jointly by us.

GS: *What was your solution to the problem?*

LL: One night, sick in bed and unable to sleep, I had a brainwave. The answer was to adapt, for use in cinematography, a device similar to the presser foot which shifts cloth through a sewing-machine. I tried a circular eccentric gear, then soon replaced it with a similar, but triangular mechanism.

GS: *And so you built a prototype along these lines?*

LL: The first machine was built by Mr Moisson, chief engineer in our factories, according to a series of sketches which I gave him. There was no celluloid in France at that time, so our first experiments were conducted using strips of photographic paper manufactured in our factories. I cut the strips and perforated them myself. The first results were excellent, as you can see.

GS: *Quite. There is something very moving about that long strip of paper which you*

have donated to the Cinémathèque française. The images are perfectly sharp.

LL: Those strips were for experimental purposes only. You could not project images from such negatives because paper is too opaque. But in the laboratory I was able to imagine the effect of animation by holding paper images up to a strong light. The results were very good.

GS: *Was it long before celluloid came in?*

LL: I would have used celluloid from the beginning if I had been able to obtain sufficiently supple and transparent supplies in France. But it was available neither in France nor in England. In the end I sent one of our heads of department to America, to the New York Celluloid Company, where he found sheets of plain celluloid which we were able to coat, cut into strips and perforate in Lyons. It was Mr Moisson who devised a perforating-machine, according to the same principles as a sewing-machine.

GS: *The emulsion you produced was of a much higher quality than that made by Kodak for Edison's films. That is obvious, now we can compare the two. Photographically speaking, the earliest American films are of an indifferent quality, whereas yours are as good as today's. When did you make your first film on celluloid?*

LL: I made my first film towards the end of the summer of 1894. It is *La Sortie des usines Lumière* (Workers Leaving the Lumière Factories). You've probably noticed that the men are in straw boaters and the women in summer dresses. At that stage, I needed a great deal of sunlight to shoot such a sequence because I had only a poor quality lens. I could not have shot that sequence in autumn or winter. *La Sortie des usines Lumière* was shown for the first time in Paris, rue de Rennes, at the Society for the Encouragement of National Industry on 22 March 1895. At the end of the screening, I was invited by Mascart, an eminent physicist and member of the Académie française, to give a lecture. I also projected on to a screen a picture of a photographic image undergoing development. This presented certain difficulties I won't go into here.

GS: *Was your invention already called cinematography?*

LL: I don't think so. Our first patent, taken out on 13 February 1895, had no particular name. We called it 'a machine designed to take and show chronophotographic prints'. The word 'cinematography' came a few weeks later.

GS: *We're all so familiar with the word 'cinema' nowadays, but at the time people thought it barbarous and unpronounceable. Did you never think of calling it anything else?*

LL: My father, Antoine Lumière, couldn't bear the word 'cinematograph'. His friend Lechère, who was a sales representative for Moët et Chandon champagne, persuaded him to call the thing 'domitor'.

GS: *What did that mean?*

LL: I'm not sure. I think Lechère thought it up. The root concept is probably something to do with domination. Neither my brother nor I ever accepted this word. We never used it.

GS: *But if you had accepted it, instead of talking about going to the cinema, we'd say going*

*to the domitor, and instead of cinematography we'd say domitory, because it was the success of the machine which you called 'cinematograph' that laid the foundations of a new art form and a new kind of entertainment. Were there any particular technical problems associated with the perfection of the domitor, I mean cinematograph?*

LL: One thing that bothered me was: how strong is celluloid? At the time, this was an unknown quantity. We did not know what the properties of celluloid were. So I devised a series of experiments which involved piercing strips of film with needles of different diameters and suspending various weights on the needles. In this way, I discovered that the perforations could, without inconvenience, be larger than the diameter of the sprocket over which they passed. This caused no loss of strength compared to a perforation exactly the same diameter as its sprocket.

GS: *Was the cinematograph built in your factories?*

LL: No, we weren't equipped to do such work. After a lecture I gave in Paris in 1895, an engineer named Jules Carpentier asked if he could manufacture our cameras in his works, which had just started production of a first-class stills camera. Carpentier and I became close friends, and remained close friends until he died. I accepted his proposition, but he was not able to complete cameras for delivery until early in 1896, so until then I had to make do with the prototype we had built in Lyons.

GS: *Since, in 1895, you only had one instrument, which doubled up both as a camera and as a projector, you must have been personally responsible for shooting every film made that year.*

LL: That is right. All the films shown in 1895, either at the Photographic Conference in Lyons in June, or at the *Revue Générale des Sciences* in Paris in July, or in the basement of the Grand Café from 28 December on, all these films were shot by me, with one single exception: *Les Brûleuses d'herbe* (The Girls who Burn Grass), which my brother Auguste shot while on holiday at our house at La Ciotat. I should add that, not only did I shoot these films, but the first films shown at the Grand Café were developed by me in enamel hospital pails containing developer, water and fixative, and it was I who made the prints, using a white, sun-drenched wall as a light source.

GS: *For half a century now these films have been world famous. They mark the dawn of cinematography. They are: Boat Leaving Harbour, Game of Cards, Arrival of a Train in the Station at La Ciotat, Demolishing a Wall, Lunch for Baby and The Gardener Takes a Shower. Can you tell us something about Game of Cards, for instance.*

LL: The players are my father, Antoine Lumière, who is the one lighting a cigar; and opposite him, his friend, Trewey, dealing. Trewey was our agent in London and he organized the cinematograph screenings there. He appears in several of my films, *Assiettes tournantes* (Turning Plates) for instance. The third player, the one pouring out beer, is my father-in-law, Winkler, the brewer

from Lyons. The footman was an employee. He was from Gonfaron. A true-blooded, silver-tongued southerner. He had an answer to everything and always made us laugh with his pranks.

GS: *What about Arrival of a Train?*

LL: I shot that in La Ciotat in 1895. On the platform, there is a little girl hopping. She is holding her mother's hand on one side and her nanny's on the other. That is my eldest daughter, Madame Trarieux, now four times a grandmother. My mother, Madame Antoine Lumière, is in the picture too, wearing a Scottish shawl.

GS: *The arrival of the train was your big hit at the Grand Café. When the locomotive appeared on the screen, spectators shrank back terrified. They thought they were going to be run over. What about Demolishing a Wall?*

LL: It was shot by me in our factory in Monplaisir (Lyons) while the builders were in. The man in shirt sleeves is my brother Auguste, telling the men what to do.

GS: *At the Grand Café, from January 1896 onwards, the film was shown backwards, which made it look as though a wall was building itself. A kind of special effect – the first ever. What about Lunch for Baby?*

LL: It was shot in the garden of our house in Lyons. The man is my brother Auguste, the woman is his wife and the baby is their daughter.

GS: *The first ever close-up. People were amazed not just by the expression on the baby's face, but also by the way the bushes moved in the sun. Now tell us about The Gardener Takes a Shower.*

LL: I am not 100 per cent certain, but I think the idea for the script came from a prank of my younger brother Edward. Unfortunately, he was killed as a pilot in the 1914–18 war. He was too young to play the part of the boy with his foot on the hose, so I found an apprentice in the works instead. His name was Duval and he was our chief packer for nearly forty-two years. The gardener is played by our gardener, Monsieur Clerc. He worked in the factory for forty years too, and is still alive today. He retired to somewhere near Valence.

GS: *Did you shoot any other films during 1895, apart from these eight famous ones?*

LL: I must have shot about fifty, though I can't be certain. Each film was seventeen metres in length and the screening lasted for about one minute. Seventeen metres may seem an odd sort of length, but it was governed by the capacity of the magazine containing the negative.

GS: *Can you recall the names of any other films you shot during 1895?*

LL: We produced a few comedies featuring relatives, friends and employees. One such was *Le Photographie* (The Photographer) starring my brother Auguste and Maurice, the photographer, who was to hold the franchise of our cinematograph at the Grand Café. We also made a film called *Charcuterie américaine* (American Pork Butcher), starring a sausage-making machine. The pig went in one end and sausages came out the other, and vice versa. My

brother and I had great fun building the machine at our house in La Ciotat. On the side, we inscribed the words *Crack, charcutier à Marseille* (Crack of Marseilles, Pork Butcher). Perhaps I should mention *Debarquement des congressistes à Neuville-sur-Saône* (Arrival of Conference Members at Neuville-sur-Saône), which is really the first newsreel footage. I shot it during the conference in June 1895 and projected it the very next day.

GS: *Did you make any further films after 1895?*

LL: Very few. I left that to the cameramen I trained: Promio, Mesguisch, Doublier, Perrigot and others. Within a few years, they filled our catalogue with more than 1,200 films shot across five continents.

GS: *When did you abandon your cinematographic activities?*

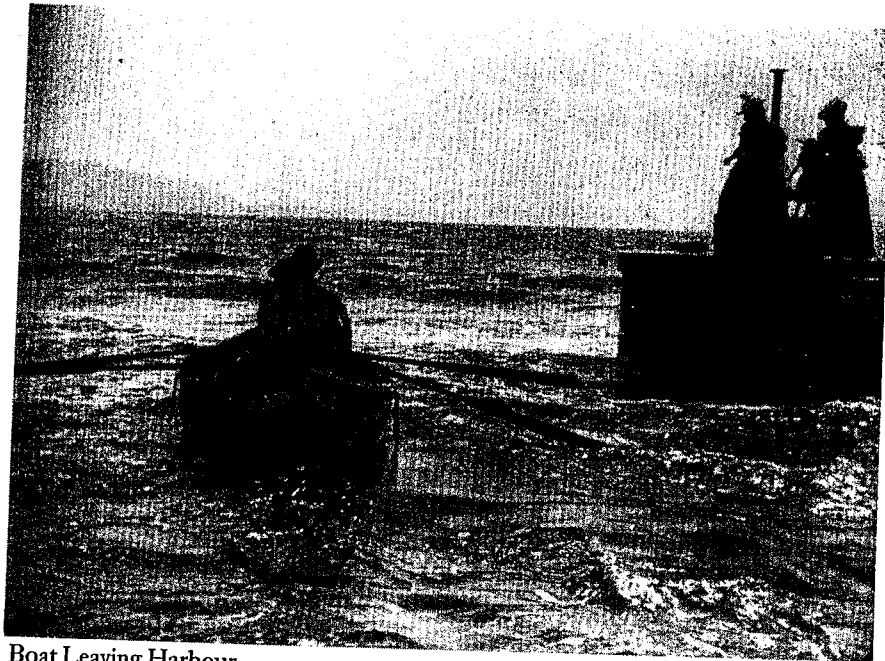
LL: My last work was done in 1935, when I invented a form of three-dimensional cinema. I showed the results in Paris, Lyons, Marseilles and Nice. I have always been a technician and a researcher. I have never been what is called a director. I can't see myself in a modern studio. As a matter of fact, I am unable to move now. I can scarcely leave Bandol.



Workers Leaving the Lumière factory



Game of Cards



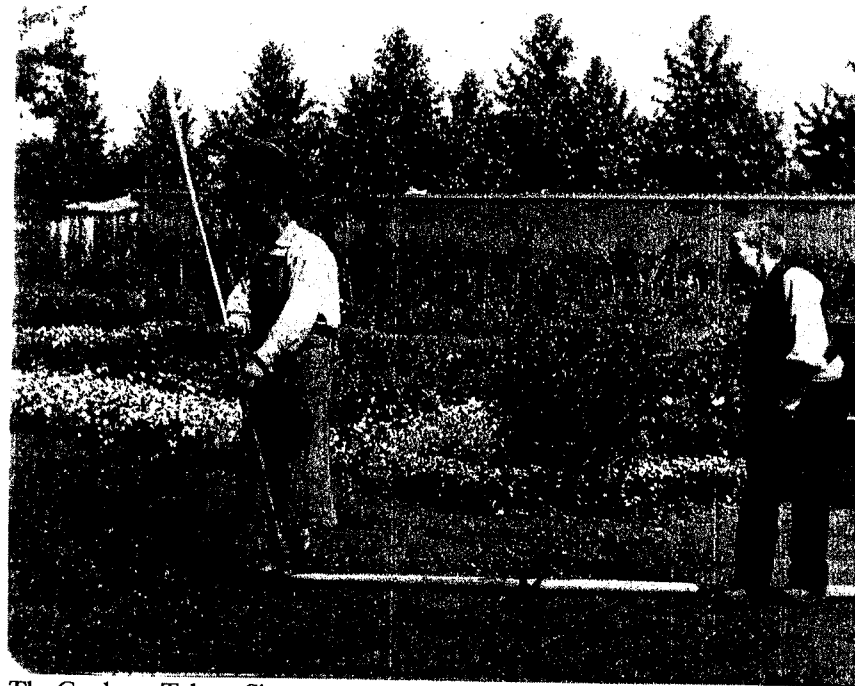
Boat Leaving Harbour



Arrival of a Train in the Station at La Ciotat



Demolishing a Wall



The Gardener Takes a Shower



Lunch for Baby



The Photograph