

- The Magic Lantern¹ - Background

The late 1920s and early 1930s... Wilfrid Bovey, then director of McGill University's Department of Extramural Relations, provided the public with access to a set of illustrated lectures on various subjects. The lecture kits, which were mailed out to interested institutions or groups, were made up of lecture booklets accompanied by glass slides for magic lanterns.

The McCord Museum owns 15 of these booklets (which deal with the history and geography of Canada and its provinces) along with some 1,250 glass slides that accompanied them. This is your chance to learn more about them!

- What is so magical about the magic lantern? And what is a lantern slide?

Origin and Technical Description

- A magic lantern cabinet at the McCord?

Provenance and Description

- McGill's illustrated lectures: when, for whom and for what purpose?

Uses of the Magic Lantern

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Origin and Technical Description

The Magic Lantern

The origin of the magic lantern is shrouded in mystery and its early use is the subject of controversy and debate. The magic lantern is thought to have been used by the ancient Egyptians, and again much later as an aid in medieval sorcery and black magic. The writings of Roger Bacon suggest that it was used for this purpose in 13th century England.

When he visited Rome around 1525, Benvenuto Cellini witnessed a secret ceremony in which a form of magic lantern may have been used to create images of demons on clouds of smoke that terrified the viewers. No illustration or accurate description of a magic lantern is known to exist prior to 1646, when *Ars Magnas Lucis et Umbrae* (The Great Art of Light and Shadow), a book by Athanasius Kircher (a German priest living in Rome), was published. Just a few years later (in the mid-1660s), Thomas Walgensten, a Danish teacher, had traveled through Europe giving magic lantern shows to royalty.

Commercial Exploitation

This novel instrument was ripe for commercial exploitation and was soon taken up by travelling showmen, who

toured Europe presenting crude entertainments at country fairs.

In the 18th century—with the exception of some serious scientific experiments by the Dutchman, Johannes Zahn—the magic lantern was looked upon as a mere toy suitable for the amusement of children. Beginning in the early 19th century, when the stimulus of the Industrial Revolution spurred the invention of ever more brilliant illuminating apparatuses, the magic lantern became immensely popular. The magic lantern show was looked upon as a medium of entertainment and amusement, as well as a vehicle for bringing information to audiences. By mid-century, successful projectionists would, through popular demand, present current events, exploration, travel, natural history and astronomy, as well as the usual comic and novelty slides.



The manufacture of lantern slides provided many aspiring artists with steady employment when sales of their own work were insufficient to keep bread on the table. Seated in workshops lit by natural light, artists would turn out hundreds of miniature paintings on glass slides. When a manufacturer required large quantities of the same scene,

² Dissolving Views using a biunial Magic Lantern to achieve dramatic special effects

several artists would produce their own slightly different versions. They used a transparent varnish made from the pitch of Canada balsam trees, mixed with crushed minerals of different colours.



The Introduction of Realistic Photographic Slides

The use of magic lanterns broadened with the introduction of realistic photographic slides. The first photographic slides were made in 1849 in Philadelphia by the Langenheim brothers. Prior to that date, there were no effective means of producing a photograph on glass. Consequently, images on magic lantern slides were painted by hand. The new photographic method created a revolution in the magic lantern manufacturing industry. Exact renditions of cities, landscapes, paintings or sculptures could now be duplicated by the thousands in a shorter time, and at a lower cost than was previously possible. The magic lantern was now looked upon much more seriously as an educational

tool and as a medium of informal instruction.

The magic lantern continued to be used in the home and at school after the “movies” replaced it as public entertainment. The ready availability of inexpensive 35 mm colour film after the Second World War finally caused the demise of the magic lantern. The projected world is now at another turning point: the colour film slide versus the digital projected image. Any image that can be recorded in a digital file can be projected, and special effects can be added with the click of a mouse...

The Development of the Magic Lantern

The forerunner of the magic lantern and, later, of the camera, was an ancient instrument known by the Latin name, *camera obscura* (dark chamber). This was first described in the 10th century by Alhazen, an Arab mathematician, who used it to observe solar eclipses. In its simplest form, the camera obscura is a light-tight box with a pinhole in one side through which daylight is directed. When the pinhole is pointed at a given subject, the image of the subject is projected into the box, where it is clearly visible on the opposite wall, although upside-down. The early instruments were big enough to walk into. Later, however, the image could easily be seen from outside the box, on the surface of a ground glass placed in the side opposite the pinhole. The camera obscura could then be made considerably smaller, and became portable.

³ Glass plates, Wm Notman & Son, *Fishing Fleet*, Lunenburg, NS, about 1925 (MP-0000.25.40), *Fishing Fleet*, Lunenburg, NS, about 1925 (MP-0000.25.41), McCord Museum of Canadian History Collection.

The magic lantern⁴ is essentially a camera obscura in reverse; the light source (a flame or light bulb) and the subject to be viewed (a lantern slide) are inside the box and the image is projected outside to a screen for viewing.

⁴ The camera obscura (dark room) consisted of a room with no windows and a pinhole admitting a beam of light from the outside world. If a screen was placed in the beam, an upside down image of the outside scenery could be observed. If the screen was replaced with a sheet of translucent material such as ground glass or waxed paper, the image could be seen from outside the box and the size of a walk-in room could be reduced to a hand-held unit. Another form of the camera obscura was often used by artists, who traced the projected image on paper. In the camera, the image-taking descendant of the camera obscura, the screen is replaced with a light-sensitive medium on which the outside scene is projected. The image projection is permanently imprisoned in the medium on a support, and can be viewed and enjoyed long after the original scene is no more.

In the lantern, the image-projecting descendant of the camera obscura, the viewing screen is located outside the box and the image projection with the light source are located inside the box: a camera obscura in reverse. The image, which may be a drawing, a painting, a photographic image, a decal, or a sketch, appears on the screen outside the box.

The lanterns themselves originally were ornate wooden boxes lined with iron, which helped to dissipate the heat produced by the lamp, and equipped with beautifully polished brass-mounted focusing lenses. The larger the lantern box, the more heat could be dissipated, and a selection of focusing lenses was necessary to accommodate the varying lengths of lecture rooms in which projection took place. Later lanterns were mass produced, and were made of a metal known at the time as "Russian iron," which was supposed to be more rust resistant. This was important since one of the by-products of the hydrogen and oxygen lime light system was water. Some lanterns, known as epidiascopes, were capable of projecting three-dimensional objects and opaque material onto a screen.

Parts of the Magic Lantern:

- 1) The flame chamber, the area in which the lamp is inserted
- 2) The lamp, without chimney or cap, providing two flames (dual burner)
- 3) The chimney cap, to help draw a draft for the flames and to protect the operator from heat
- 4) The reflector, placed outside the flame chamber to direct the light towards the condenser
- 5) The condensing lens, to concentrate the light on the slide
- 6) The stage, a sliding rack in which the slides are inserted

Light Sources

Several different fuels were used to generate the light needed to project images from magic lanterns. Among these were animal and vegetable oils, lime and kerosene (coal oil). Eventually, electrical energy was used.

Oil Lamp

Until the early 19th century, the only illuminants used in magic lanterns were oils of vegetable or animal origin. Although many kinds were used, only rapeseed oil and whale oil had wide distribution. Because of the relative dimness of oil light, the magic lantern of this early period had to be used in a small room.

Lime Light

In 1826, Goldsworthy Gurney of England demonstrated that a small cylinder of lime (calcium oxide) would, when heated by a pressurized stream of oxy-hydrogen, emit an intense light. Shortly afterward, this system for producing artificial light was utilized in magic lanterns as well as in theatres and public buildings. Lime light⁵, the most

⁵ Illumination was produced by applying a flame to a shaped lump of lime, and heating it to incandescence. This form of illumination was also widely used in signal lamps and theatre stage footlights. The flame had to be extremely hot to heat the lime sufficiently. Projectionists used hydrogen and oxygen gases, each stored in wedge-shaped rubberized bags with a stop-cock on the narrow end and weighted planks to produce pressure. In the manuals of the day, various methods and formulae abounded as projectionists produced their own hydrogen and oxygen supplies. Hoses from the gas bags, which were laid on the floor near the lantern, terminated in a jet nozzle within the lantern directed at the lump of lime. The operator kept his shaped lime chunk in a small air-tight bottle, and had to insert the lime into the burner, ignite the hydrogen, slowly introduce the oxygen until the lime

brilliant of artificial illuminants until the invention of electric light, was considered dangerous since the hydrogen tank occasionally exploded in the middle of a presentation.

Kerosene Oil (coal oil)

Although experiments with distillates of petroleum for illumination had begun as early as 1847, the first successful magic lantern fitted with a kerosene burning lamp was not marketed until about 1870. The instrument employed a double wick burner and its inventor, Professor L. J. Marcy of Philadelphia, called it the Sciopticon⁶ magic lantern.



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Because the kerosene lamp gave a less brilliant light than lime light, it was not as suitable for shows held in large halls, but its convenience, cheapness and, above all, safety made it the favourite choice for the home and classroom.

Electric Light

The first electric light to be used in the magic lantern was the carbon-arc lamp⁸.

reached incandescence, manoeuvre the apparatus into a place where it would not cast shadows and ensure that the gas pressure was constant and the lime plentiful during the show. Needless to say, the use of these gases was very dangerous, and required a highly skilled operator. If a mistake was made in the ignition phase, or the gas bags developed a leak, or a back-burn caused by the gas in the tube leading back to the gas bag igniting, explosions were likely to occur. A solution to back-burn consisted in bubbling the two gases through water before sending them to the jet. Pressurized steel cylinders were safer but required the use of regulators to deliver gas at a constant pressure. They were heavy to transport and still quite dangerous. In later years, as city gas supplies improved, household coal gas could be used in place of hydrogen if oxygen was used to increase the temperature of the flame; "blow-through jets" were used for this purpose. Ether and alcohol were also used and, after 1895, when acetylene could be produced at less cost, it too was used with oxygen to increase the temperature of the flame. But these combinations were just as dangerous as the use of hydrogen, and perhaps more so. Hence, they were generally avoided.

The use of lime light clearly had its drawbacks, but practitioners tended to approach the problem from the wrong end. In particular, regarding the production of the high temperatures required to bring the lime to incandescence, the technical manuals for lantern projectionists concentrated on the combination of gasses required to reach this temperature, and not on better and safer ways to produce brighter illumination.

⁶**Sciopticon:** Provision of a chimney improved the air draft, and multiple wicks could be used. An air draft improved the flame and reduced flickering, but the light provided was still not powerful enough and generated a lot of heat. Costly hand-painted slides

would often break. The invention of the Sciopticon about 1870 with two parallel linear wicks at right angles to the condenser improved illumination, and the later addition of a third wick reduced the black image of the wick itself on screen. The entire lamp unit could be removed from the lantern and maintained. This also facilitated the switching of lamps when the heat became too intense. Newtonian lamps had a metal light-tight chimney, wicks surrounded by glass panels that could be easily replaced if they cracked, and a parabolic reflector to improve the direction and intensity of the light. The illumination produced was a yellow colour, the burner produced sooty smoke, and large halls could be a problem; however it was cheap, plentiful and relatively safe.

⁷ McCord Museum of Canadian History Collection.

⁸**Electric Light:** Another up-and-coming possibility was the use of electricity to produce light. Carbon-arc lights were already in use to illuminate city streets at night, and the same method was used as a light source in lanterns. The light is produced by connecting the positive and negative leads from a direct current source of electricity to two carbon rods, each with pointed tips held in proximity to each other. At a set distance, the electrical charge leaps from one tip to the other, producing a brilliant arc similar to the lightning produced in thunder-storms, a large amount of ultraviolet radiation, and a hissing noise. As the junction between the rods was not enclosed, the rods would gradually be consumed by corrosion. At first

The light emanated from an electric spark crossing between two carbon rods. This lamp became popular in the 1890s but it and the later incandescent light bulb did not replace the lime light or kerosene until the widespread installation of electricity. Even in the 1940s, at the end of the magic lantern era, lecturers in remote communities would employ the kerosene lamp.

Lantern Slides

The slide used with the magic lantern consisted of a “positive” image (an image whose tonal values corresponded with those of the subject) on a glass plate.

Painted Slides

The earliest form of slides designed to be projected were miniature paintings on glass. Although this sounds as if it could make an ideal cottage industry, the paintings on glass had to be extremely accurate, as every defect in the painting was very noticeable when enlarged on screen. These slides were usually circular pieces of glass set into a wood frame (often mahogany), and had a

they were impractical as a heavy battery was needed to produce an adequate charge, but as cities gradually became electrified and generators more available, central sources of electricity in buildings became more common. Carbon-arc lamps were reliable, efficient and between the brilliance of the arc and the glowing yellow tips of the carbon rods, were capable of producing a pleasing light suitable for projection to great distances. Filament light bulbs were also developed, although originally they were much too weak to be of use in projection, and the bulb’s glass envelope cast shadows on screen. Today’s specialized bulb with its integrated reflector is their descendant.

diameter of about 3 ¼ inches. They were quite expensive to produce and are very impressive as tiny works of art. Sizes of 3 ¼ by 3 ¼ in Europe and 3 ¼ x 4 in North America gradually became standard.



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Lithograph /Decal Slides

Many of the early slides were lithographed decals applied to glass, often in strips 13” to 14” long (33 to 35,5 cm) consisting of a sequence of images which could be pushed through the stage area of the lantern to reveal the next picture. This cheap method of mass-producing lantern slide was introduced in Germany, about 1875, and the subject matter was often children’s fairy or cautionary tales. The long slides were often set in a wooden frame or had paper-bound edges. They were sold in long wooden boxes as a set. Instructions were published on how to make projectable slides from illustrations in books by applying the cut-out image to a piece of glass using various sticky products.



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⁹ Painted slide, McCord Museum of Canadian History Collection

¹⁰ Decal slide, McCord Museum of Canadian History Collection.

As the lanterns became more sophisticated, individual slides became more common. The slide stage was modified to accept a double slide holder rested in the slide stage. One slide could be inserted in one half of the holder as the other half was being projected, then the holder was pushed through to reveal the new slide and the previous slide removed. Individual slides consisted of an image-bearing piece of glass, a cover glass and a binding tape around the edges to hold the two together; often a paper mask was inserted between the two on which identification information could be written.

Photographic Slides

With the advent of photography and in particular, images on a transparent base, cheap accurate lantern slides could be produced. In the wet plate era before about 1880, the negative was produced normally but the printing of it onto another “negative” to produce a transparent positive was complicated by the fact that the “negative” was wet with chemicals. Various methods were used to overcome this unavoidable problem. Contact (same size) positive prints on glass could be made by inserting a paper or cardboard separator between the negative and the positive. Another method involved reduction; the negative would be made in the standard 6 ½ by 8 ½ size and, with the use of a copy camera, the positive would be a reduced print on glass from the negative. An alternative source for fast easy lantern slides were the double-image negatives used to print stereograph cards. When cut in half, they were just the right size to be bound as lantern slides.



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Dry plate technology rendered the process even simpler. Sensitized plates could be bought in light-tight boxes, and negatives taken of scenes or copies of images from books. The batch of negatives was developed and dried, then graded according to density so that printing those of similar density could be accomplished in a batch with the same exposure. A contact printer was used, producing a same-size glass positive on similar sensitized “negative” plates. These were developed and dried, fitted with a cover glass and bound with tape on the edges. Some were tinted with transparent inks before the cover glass was applied, and often paper masks were inserted between the plates with the name of the subject or the producer. These dry plate slides were easy to generate in vast quantities, and slide sets on specific subjects could be bought from commercial suppliers.

The tinted slides are especially striking. Although the colors, especially the greens, are not always realistic, they are often vibrant and give the viewer a sense of life often lacking in the black and white photographs of the same era. There are comparatively few images of

¹¹ Photograph, Wm Notman & Son, *H.M.S. Garnet, cleared for action, Quebec City, Qc., Ca. 1884*, N-0000.25.1076, McCord Museum of Canadian History Collection.

people in the tinted photographs, and one can see why when looking at them. Too often the artist has missed the outlines, and this doesn't always do the image justice. Tinted lantern slides seem more suited to the vast expanses of the prairie, or the vistas of the Rocky Mountains. The choice of colour itself is often interesting. Some colour choices made by the artists were better than others.



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Special Effects Slides - Details

Slip Slides: These consisted of two pieces of glass, one fixed and the other sliding, mounted together in a wooden frame. The moving slide, bearing blacked-out areas, would cover or uncover portions of the stationary slide, showing, for example, a ship followed by a burning ship.

Lever Slides: These consisted of a fixed slide and a circular moving slide which was brass-bound with a projecting lever. A partial image was painted on the fixed slide, and the missing portions were painted on the rotating slide. Both, again, were mounted together in a

wooden frame. The lever, when moved up and down, rotated the circular glass and portions of the image would move. For example, a horse might raise and lower its head and neck to drink from a stream.



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Revolving Slides: These consisted of two circular slides, one fixed and the other rotating. The rotating slide was driven by various means, such as gears, a rack and pinion, string belts and cranks. Again, the fixed slide would bear part of an image while the rotating slide bore the rest of it—for example, a water-powered mill with a rotating water wheel, or a sleeping man and a mouse on a bed.



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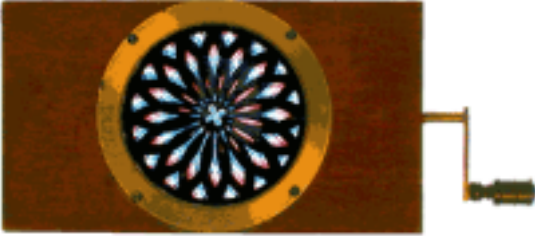
Chromatropes: a variation on the revolving slide. In this case the images on the fixed and moving slides were spirals or zigzag patterns, which, when rotated against each other, produced moiré patterns and interference wave patterns. When projected, the effects

¹² Glass plate, Alexander Ross, *Lord Strathcona driving the last spike, C.P.P., Craigellachie, BC, 1885*, MP-0000.25.971, McCord Museum of Canadian History Collection.

¹³ Lever slide, McCord Museum of Canadian History Collection.

¹⁴ Revolving slide, McCord Museum of Canadian History Collection

could be quite mesmerizing. These kinds of slides also existed in the long strip form, framed in wood.



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Specialized Slides

For scientific lectures, it was possible to project actual experiments on screen. The slides were small flat tanks in which chemicals could be combined or small aquatic animals could be confined. Needless to say, the time of projection had to be very short or the animals would dry up and die. Recalling the origins of projection, some slides had an open hole in the centre of which a brass sheet-metal flexible-jointed figure was suspended to provide a silhouette on screen. This figure could be moved with a crank. Some slides relied on the phenomenon of persistence of motion and were the ancestors of the moving picture and the world of cinema.

¹⁵ Chromatope, McCord Museum of Canadian History Collection

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Provenance and Description

This display cabinet for magic lantern slides comes from McGill University, and was acquired in the late 1960s. A sign of the times, the projection equipment, which had been hidden away for more than twenty years, has found its natural place within the context of a museum collection. It came with some 1,250 glass slides, several hundred glass negatives stored mainly in small cardboard boxes, material for making glass plates, and 15 lecture-program booklets.



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Although recent studies make it possible to determine how and why these glass slides were produced (they were originally used in conjunction with a magic lantern to illustrate lectures offered by McGill University), we are less certain as to the exact contents of the cabinet at the time of its acquisition by the McCord Museum. This is due, in large measure, to successive reorganizations of the initial collection

over the last 30 years, in order to reflect the Museum's mandate to feature Canadian content. Also, because there was no precise list at the time of acquisition, we cannot, unfortunately, reconstruct the contents with any great degree of certainty.

The Cabinet

The cabinet is an oak case made specifically to hold negative glass slides. The manufacturer was the firm of G. S. Moler of Ithaca (New York), which produced the unit at the beginning of the 20th century. Rather large (127 x 96 x 36 cm), the cabinet comprises 19 sliding compartments, each of which can hold 60 glass plates. The cabinet was designed in such a way that one could quickly scan the slides by pulling out one of the 19 compartments. Two drawers located at the bottom of the unit made it possible to store other glass plates (slides or negatives) in cardboard cases, along with material for making and repairing plates, and booklets used for giving courses or lectures.

The Accompanying Booklets

According to a list discovered in the McGill University Archives, in 1935 the Department of Extramural Relations offered some fifty illustrated lectures grouped into five series of varying importance. These were: Geography and Travel, History, Science, Natural History and Religion. Fifteen of the supporting booklets, on exclusively Canadian topics, are currently in the McCord Museum.

¹⁶ Display cabinet with lantern slides, McCord Museum of Canadian History Collection.

In English only, these booklets contain indexes on the subjects covered, the content of the presentation itself and descriptive notes pertaining to the supporting slides. The booklets produced by the Canadian government also contain appendices of texts written by politicians of the period, who represented the government departments involved. Although the booklets are undated, there are many references that make it possible to determine the approximate times at which they were produced. It is safe to presume that these texts were written in the first quarter of the 20th century.



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The Lantern Slides

The cabinet contains approximately 1,250 positive glass plates (slides) produced by various procedures, but mainly by gelatin on glass and wet-collodion processes. With the exception of the slides originating in France, the majority of the slides are close in size, either 8.2 x 8.2 cm or 8.2 x 10.1cm. A good many of the slides have been painted, or touched up in various transparent inks. Many of them are also enclosed within paper masks¹⁸.

¹⁷ McGill Lectures booklets, McCord Museum of Canadian History Collection.

¹⁸ Paper Mask : In the earliest instances, the paper mask was often used for aesthetic purposes. Very often a collodion photograph had a small round mask,

The period covered runs from 1870 to 1930, and the subjects dealt with mainly concern the development of Canada. Individual slides were not restricted to one lecture, and it is fairly common to find several reference numbers on the same one.

Unlike the majority of magic lantern images used, these photographs are originals. In other words, they are not reproductions of already-published images. However, numerous slides come from series published by various government agencies or private companies. This collection contains slides produced by the Ontario government, the public education department of the American Museum of Natural History, and even the French firm of J. Lévy.



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vignetting a small central area of a rectangular image that covered almost the entire 8.1 x 10.1 cm surface. The paper mask also had a functional purpose, and seems to have increasingly so as time went on. It could hide unwanted portions of the image and, early on, it was used to cover the other portion of the stereo pair. It could also be used to hide distracting titles and numbers, and to mask clear areas where there was no image.

¹⁹ Lantern slide, *Logs being transported by the Comox & Campbell Lake Tramway Co., Vancouver Island, BC, Ca., 1925*, MP-0000.25.885, McCord Museum of Canadian History Collection

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Uses of the Magic Lantern



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The Early Days at McGill

McGill University and the museums affiliated with it have put together major collections of photographs on glass, some of which date most likely from the 1870s and 1880s. However, the use of magic lantern projections in certain McGill lecture programs probably did not become frequent or systematic until the 1890s. The improvement of electrical facilities on the university premises undoubtedly had something to do with this development. The light sources used in magic lanterns up to that point, mainly kerosene and lime light, were not well suited for projections in large lecture halls; moreover, they could be difficult or even dangerous to handle²¹.

²⁰ Composite photograph, William Notman, *McGill University, Montreal, QC, 1871*, I-63563, McCord Museum of Canadian History Collection.

²¹ Stanley Triggs, *Magic Lanterns*. Text of an exhibition presented at the McCord Museum of Canadian History from November 1987 to June 1988.

Not only was the magic lantern slow to catch on at McGill, but it was also used more in some disciplines than in others. At the turn of the 20th century, it was associated mainly with the teaching of medicine and the natural sciences. One pioneer in this area was Frank Dawson Adams (1859-1942), who, in 1896, promised his new students that they would have courses “accompanied by magic lantern projections.”²² A renowned geologist, Adams began teaching at McGill in 1889. He appears to have maintained his belief in the importance of this pedagogical tool throughout his teaching career, which ended in 1924. During the intervening years, he collected (or made) several hundred glass photographs for his courses in geology and palaeontology²³.



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The Medical Faculty’s Use of the Magic Lantern

In 1898, the Department of Medicine announced that it was offering a series of night courses “with lantern projections,”

²² *McGill University Calendar for the Session 1896-1897* (Montreal: Lovell & Son, 1896).

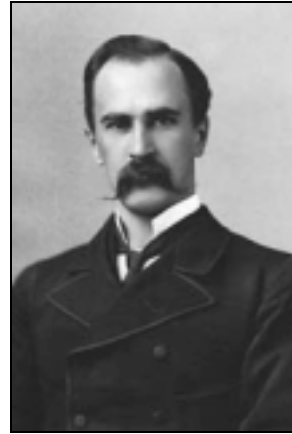
²³ David Rowe, “Inventory of Accession 1217” (Graduate School of Library Science: McGill University, April 1979). McGill University Archives, R.G. 11, c.21, access no. 1217.

²⁴ Photograph, Wm. Notman & Son, *Dr. F. Adams, Montreal, QC, 1922*, II-173978, McCord Museum of Canadian History Collection.

as part of a professional development program for general practitioners. Three years later, McGill's new Hygiene Museum²⁵ gave the university access to a recently acquired collection of some 1,000 magic lantern plates that could be used to illustrate "the different phases of hygiene."

In the ensuing years, teachers in a number of medical disciplines²⁶ followed suit, and the magic lantern began to be used in applied sciences courses as well²⁷. Photographs on glass, like those on paper, also made it possible to relate—and, at the same time, demonstrate—scientific discoveries. For example, some of those found in the Adams collection recount the efforts and discoveries made during palaeontology expeditions carried out in the Canadian Rockies during World War I. Easily transportable by mail or other means, they also represented a way of building up or completing collections of specimens, and fostered information sharing among individual researchers and institutions (universities, hospitals, museums, etc.). The projection of these photographs via the magic lantern to teach doctors, geologists (and, later,

nurses) was, of course, an extension of this type of information sharing. In actual fact, in an institution such as McGill, all these developments were concurrent.



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The correspondence between Dr. William Osler (1849-1919)²⁹ and his

²⁸ Photograph, Notman & Sandham, *Dr. William Osler, Montreal, QC, 1881*, II-62556, McCord Museum of Canadian History Collection.

²⁹ Dr. William Osler (1849-1919) : An internationally renowned clinician, Osler was probably the finest jewel in McGill's Faculty of Medicine. He obtained his degree in 1872 and went back to teach there in 1874, the same year in which he was appointed doctor and pathologist at the Montreal General Hospital. This made him the youngest professor to join the Faculty of Medicine and the first who earned his living teaching—as opposed to in private practice. It must also be pointed out that, from then on, Osler gained a reputation as a reformer—on the one hand, for his insistence that his students apply scientific rules in making diagnoses and deciding on treatment options; and, on the other hand, for the struggle he waged against traditional teaching methods, which focused too exclusively on lecture courses, instead of on observation and practice. Osler left McGill in 1884 to pursue a career in the United States, in particular at the Johns Hopkins School of Medicine in Baltimore. By 1904, when he became a professor at Oxford University in England, he was considered a leading light of clinical medicine throughout the entire Anglo-Saxon world. See Joseph Hanaway and Richard Cruess, *McGill Medicine, Volume 1: The First Half Century, 1829-1885*. (Montreal and Kingston: McGill-Queen's University Press, 1996), pp. 95-99 and 179-183. See also H. Bensley, ed., *Osler Library Studies in the History of Medicine, Number 1, McGill Medical Luminaries* (Montreal: The Osler Library, McGill University, 1990), pp. 43 and following.

²⁵ This museum was created in 1893. *McGill University Annual Calendar for Session 1901-1902* (Montreal: Gazette Printing Co., 1901).

²⁶ More precisely, histology, pathology, dermatology and parasitology. In 1913, the parasitology courses were "copiously illustrated by lantern projection." McGill University, *Faculty of Medicine Annual Calendar for session 1913-1914*, Montréal, Gazette Printing Co., 1913.

²⁷ In 1916, the Department of Mining Engineering indicated that it had nearly 4 000 photographs, as well as major collection of photographs on glass. *McGill University Annual Calendar for Session 1916-1917* (Montreal: n.p., 1916) Then, during the 1920s and 1930s, the physical science teachers, particularly H.T. Barnes and A.N. Shaw, also began to use them frequently. See the collection of photographs from the McGill University Archives, especially PG 029013, 028976 and 028975.

Canadian and American colleagues at the turn of the century brings out the simultaneous functions of these small objects, as well as the important role they played in the practice and progress of medicine, particularly with respect to the study of infectious diseases. As working tools and, ultimately, scientific exhibits, these photographic glass plates contributed to the discussions that medical experts carried out among themselves. And it appears that, on occasion, these plates accompanied medical personnel into the thick of battle. The following example,³⁰ dates from 1918, that is, a time when the terrible influenza pandemic known as the “Spanish flu” was decimating the populations of Europe and North America:

Dear Archie

“Dee lighted to hear you are to come over. ‘Twill be splendid. Get some good slides for lantern if possible. It is to be a big discussion [on influenzal pneumonia]³¹. Rolleston asked me to open, but I had nothing special and too busy. U.S. troops in the thick of an epidemic here (...)”

³⁰ This letter is addressed to Thomas Archibald Malloch. A professor at McGill University and a doctor at the Royal Victoria Hospital, Malloch joined the Canadian army when World War I broke out, and served in various military hospitals. After his demobilization, he remained in England for several years before returning to Montreal in 1923. *The McGill News*, vol. 14, no.2 (March 1923), p. 37.

³¹ Letter dated October 14, 1918. The bracketed section is a detail added by Dr. Cushing himself. Indeed, when he began writing his biography of Osler, Cushing had all of the correspondence he could find concerning Osler transcribed. The excerpt presented here is one of these retranscriptions,

The Magic Lantern in Literature and the Social Sciences

While the magic lantern appears to have been, for a time at least, a key tool in the scientific and university life of the Faculty of Medicine, most of the departments in the Faculty of Arts (with the exception of the Department of Geology)³² did not seem to accord it the same importance. The only notable exception to this rule was the English Language and Literature Department, where Gerhard Lomer (1882-1970) taught from 1903 to 1907. During this period, Lomer put together a collection of lantern slides³³ that, in various ways, illustrated the history of literature. Between his appointment as the university librarian in 1920 and his accession to the post of Director of the McGill School of Library Science in 1927, Lomer kept adding to the collection. Today it boasts several thousand plates, with series dealing with many aspects of the history of books and libraries throughout the world³⁴.

annotated by Cushing. See Harvey Cushing, *The Life of Sir William Osler* (Oxford: Clarendon Press, 1925).

³² The departments of Physical Science and Geography would do so later. Up to 1940, in fact, the Faculty of Arts included the natural sciences (biology, physics, zoology) as well as commercial studies, or what we would now call the human and social sciences.

³³ Unlike the series put together by F.D. Adams, those that Lomer collected were purchased *as* a series, mainly from British or American companies. See the McGill University Archives photography collection.

³⁴ McGill University Archives photography collection, PG 028998.

Maude Abbott, or Courses for Export



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In short, whether or not this relatively “modern” technology was used in McGill classrooms depended on the subject being taught; some subjects obviously did not lend themselves—or did so less readily—to this way of teaching. But the decision also varied with the pedagogical approaches of the professors, and their degree of ease in handling this sort of device. In this respect, William Osler, F. D. Adams and Gerhard Lomer (and particularly the latter two) stood out sharply from their colleagues. This was also the case with Maude Abbott (1869-1940)³⁵ who, like Adams and Lomer, built up large collections of magic lantern plates for

³⁵ Photograph, Wm. Notman & Son, *Miss Maude E. Abbott, Montreal, QC, 1893*, II-103172, McCord Museum of Canadian History Collection.

³⁶ Maude Abbott (1869-1940) : In actual fact, Maude Abbott stood out from her colleagues in a number of ways. She was one of the first women in Canada to obtain a degree in medicine. She specialized in pathology and earned a reputation as a specialist in congenital heart disease. She began teaching at McGill in 1912. Throughout her career, which ended in 1935, she incorporated magic lantern projections into her teaching. Her passion for the history of her discipline (a quality she shared with Adams and Lomer) encouraged her in this regard.

her McGill students. In 1917, the Royal Victoria Hospital’s School of Nursing asked Dr. Abbott to put together, for the institution, the first course on the history of nursing care. Abbott had some 200 photographs on glass made for this purpose. Her work did not go unnoticed. During the 1920s, this series of photographs was reproduced several times, and was even purchased by the Teachers College of Columbia and most of the nursing schools in Canada and the United States³⁷.

A New Use for the Magic Lantern

Adult Education

In the 1920s and 1930s, the magic lantern was used to illustrate several courses given within McGill’s regular programs. Of course, it was still associated in a more systematic way with the teaching of medicine, physics, chemistry and the applied and natural sciences. But it was employed as well in presentations on literature and architecture, and probably accompanied some of the new sociology courses³⁸.

³⁷ *Autobiographical Sketch: An Address Read Before the Women’s Medical Society of McGill, March 31, 1928*, pp. 30-32. (This was published in the “McGill Medical Journal” in October 1959). McGill University Archives, Maude Abbott Trust, M.G. 1070, c.4, access no. 2354, ref.

³⁸ In 1929, Carl Dawson, a professor in this department, presented an illustrated lecture on “the natural history of Montreal” at the Mechanics Institute. McGill University Archives, R.G. 44, c.10, access no. 12, ref. 8/1/203. Moreover, the McCord Museum collections contain numerous slides dealing with physical and human geography, which are probably from this period. The use of the magic lantern is never mentioned in descriptions of the regular sociology courses; and it is rarely if ever mentioned in descriptions of courses given by the departments of “Literary Studies”, Education, or even

At this time, in fact, throughout Montreal and Canada, the magic lantern had given way to film as a public entertainment³⁹. It could henceforth be found only in schools or homes, where it was sometimes used as a form of entertainment in recreational gatherings of families and neighbours. Somewhat paradoxically perhaps, McGill University, like the Université de Montréal⁴⁰, came to depend on the magic lantern more and more in its dealings with the public. At McGill in fact, the magic lantern was in the process of finding a new use within the framework of adult education programs.

Public Lectures

For quite some time already, McGill University had been offering Montrealers public lectures: the first went back to 1856⁴¹. But it was only in the 1890s that the University began offering the public non-program activities on a regular basis. In 1900, a gift from the family of Hugh McLennan (1825-1899) (in memory of the writer) enabled McGill to set up a travelling library service: each unit carried several dozen “carefully chosen” books that were lent upon request, for a rather modest sum, to schools, reading clubs and small rural libraries, or to communities that did not have libraries of their own. In 1920, the year in which

Gerhard Lomer became the head librarian at McGill University, these travelling libraries also began to offer “lantern plates as well as courses.”⁴²



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In its attempts to make certain types of knowledge more accessible to the public and, in the process, to raise the latter’s educational level, McGill shared the concerns of several institutions ranging from the well-known YMCA⁴⁴ to lesser-known institutions like the Mechanics Institutes and the Women’s Institute⁴⁵. Ties gradually began to form between McGill and these different institutions.

⁴² *McGill University Annual Calendar for Session 1920-1921* (Montreal: n.p., 1920).

⁴³ Photograph, William Notman, *Mechanic’s Institute, Toronto, ON, 1868*, I-34465.1, McCord Museum of Canadian History Collection.

⁴⁴ The first Canadian YMCA was built in Toronto in 1853. Its Montreal counterpart opened its doors in 1869. Gordon Selman and Paul Dampier, *The Foundations of Adult Education in Canada* (Toronto: Thompson Educational Publishing, 1991), p. 37

⁴⁵ The Mechanics Institute, which, like the YMCA, is based on a British model, made its first appearance in Canada in the 1830s. At the start of the 20th century, it offered evening courses that could help working people to complete their education. See *The Foundations of Adult Education*, pp. 36-37. The Women’s Institutes, on the other hand, originated in Canada (the first was set up in Ontario in 1897). This organization was devoted to women’s education, and to improving the quality of life for women in rural areas. Gordon Selman, “Stages in the Development of Canadian Adult Education,” in *Adult Education in Canada: Historical Sketches* (Toronto: Thompson Educational Publishing, 1995) p. 65.

Architecture. Information on this matter is usually indirect.

³⁹ Stanley Triggs, *Magic Lanterns*, op. cit.

⁴⁰ In the 1930s, the Université de Montréal, like McGill, offered the public a variety of non-program activities, one of which was this series of “public lectures on general biology” presented in 1935-1936. All of these activities involved magic lantern projections.

⁴¹ Guide to the McGill University Archives, vol. 1, p.106.

Before World War I, one can not really speak about a concerted social movement in favour of adult education in Canada. Initiatives in this area came essentially from volunteer associations, private bodies, the Church and the universities. Still, the number and variety of organizations concerned with this question continued to grow.

The Creation of the Department of Extramural Relations

In 1922, the number of non-program activities offered by McGill was high enough to justify the creation of a study committee. The following year, this committee organized a series of night courses on themes which, in its estimation, might be of use to Montrealers. The success of this initiative—which was, on occasion, extended to other Québec cities (Grandmère, Ottawa and Quebec City)—prompted the University to create a Department of Extramural Relations in order to coordinate and manage some of these courses, lecture series and other outside activities. The first Director of this department was Colonel Wilfrid Bovey, who held the position for the more than twenty years between 1927 and 1948⁴⁶.



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In the 1930s, under Bovey's direction, the Department of Extramural Relations offered a series of evening courses. Some of these, intended for teachers, were given for university credits. These courses, which were also open to a large audience,⁴⁸ dealt with subjects of general interest (law, for example, or economics with a focus on current issues). They delivered the rudiments of philosophy or art history, as well as providing a grounding in child psychology, astronomy and even metallurgy. This time around, the magic lantern was used whenever possible. Whether outdated or not, it could still be extremely useful in catching and maintaining the attention of non-academic audiences. The courses were given both on and off the campus, in particular at the Mechanics Institute of Montreal, which had close ties⁴⁹ to

⁴⁷ Photograph, Wm. Notman & Son, *Captain Bovey and officers of the 5th Royal Highlanders, Montreal, QC, 1914*, II-206458, McCord Museum of Canadian History Collection.

⁴⁸ In the 1930s, the Université de Montréal, like McGill, offered the public a variety of non-program activities, one of which was this series of "public lectures on general biology" presented in 1935-1936. All of these activities involved magic lantern projections. MacDonald College, which was affiliated with McGill, offered its own public lectures. The physical sciences laboratory of MacDonald Physics offered, for Christmas 1934, a series of courses for boys and girls, illustrated with experiments and projections. Although these courses were addressed mainly to 12- to 14-year-olds, adults could attend if they wished..

⁴⁹ Indeed, as far back as the 1920s, the Mechanics Institute of Montreal designed its programs of evening

⁴⁶ Stanley Brice Frost, *McGill University for the Advancement of Learning*, op. cit., pp. 294-7.

McGill. Finally, they were also dispensed in other Québec cities—in Quebec City, for one. The Department of Extra-Mural Relations could also offer high-level university courses, which were, however, given outside regular teaching hours so that professionals might have access to them⁵⁰.



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Several well-known individuals taught within the framework of this service. In 1932, Leonard C. Marsh, whose endeavours helped to bring about the adoption of the first welfare state measures, gave an economics course that focused on the question of unemployment⁵². In 1934, Idola Saint-Jean (1880-1945) a feminist and President of the Canadian Alliance for the Women's Vote⁵³, gave two French

courses and lectures in close collaboration with McGill University.

⁵⁰ Some forms were sent to McGill teachers by the Department of Extramural Relations, asking whether the teachers were ready to give non-program courses, or courses to non-academic audiences, and if they would agree to give these courses outside Montreal.

⁵¹ Photograph, Wm. Notman & Son, *Mechanic's Institute, Atwater Avenue, Montreal, QC, 1920*, VIEW-19605, McCord Museum of Canadian History Collection.

⁵² James Struthers, *No Fault of Their Own: Unemployment and The Canadian Welfare State, 1914-1941* (Toronto: University of Toronto Press, 1983).

⁵³ Collectif Clio, *L'histoire des femmes au Québec depuis quatre siècles* (Montreal: Les Quinze, éditeur, 1982).

courses, one on the McGill Campus and the other at the Mechanics Institute. In 1932, Maude Abbott herself gave a course (most likely a professional development course) on congenital heart disease that was abundantly illustrated with models, specimens and, of course, magic lantern projections.

The Itinerant Lantern

A Readymade Lecture Service

In the early 1930s, Wilfrid Bovey offered the public an illustrated lecture service modelled on that provided by McGill's travelling libraries. (It may even have functioned in conjunction with the latter.) Each of the courses made use of a series of magic lantern slides, and came with a booklet narrating the projections. Although Wilfrid Bovey himself may have, on occasion, delivered lectures of this type⁵⁴, these courses appear to have been rarely given by McGill professors.



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⁵⁴ See the program of "Popular lectures" offered by the Mechanics Institute of Montreal for 1928-1929. McGill University Archives, R.G. 44, c. 10, no.12, ref. 8/1/30.

⁵⁵ Lecture kit (slide and booklets), McCord Museum of Canadian History Collection.

The slides and booklets together made up a sort of lecture kit that was mailed out upon request to various institutions, associations or groups. This service extended throughout Québec and Ontario, and a number of travelling lecture series even made it as far as New Brunswick. The role of lecturer was assumed, for the most part, by a priest, minister or school teacher, or by a representative of the local YMCA. By 1935, there were some fifty courses. Devoted mainly to Canada, they were divided into five series (some more comprehensive than others): Geography and Travel, History, Science, Natural History and Religion.



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A Community Service

This illustrated lecture service was offered for a modest fee: users were asked to pay an initial \$5 to defray the cost of eventual losses and damage. If, moreover, they did not have a magic lantern of their own, they could rent an electrical one for \$2 per day. In rural communities without electricity, or in places where people wanted to reduce rental costs, one could borrow a magic

⁵⁶ Lecture kit (slide and booklets), McCord Museum of Canadian History Collection.

lantern that could be connected to a car battery⁵⁷. The entire kit was sent by “express post” at the client’s expense.

McGill’s illustrated lectures appeared to have generated a certain amount of interest. Among those who made regular use of them were the Montreal Mechanics Institute and the Women’s Institute, as well as Protestant teachers and pastors of several cities or small localities throughout Québec and, even, Ontario. Requests for lectures could be made by employee groups: we know, for example, that Bell Canada employees borrowed them frequently⁵⁸. Finally, some of the lectures offered by McGill visibly livened up a number of Masonic lodge meetings:

Moulinette, Ontario, October 27, 1936:

“Dear Dr. Lomer, I am writing to ask whether your library of lantern lectures would be available to our Masonic lodge here (...) As minister of the United Church here I might also ask for permission to hold the slides an extra day or two and show them in one or more of my church halls (...)”⁵⁹

⁵⁷ Letter of W. Bovey to Mrs. Chas. Smallman, Sainte-Agnès-de-Dundee, November 1, 1935. “...if you use the regular electric current for a lantern then we could forget about the \$2 rental costs, but you would still have to pay for transportation; if you have no electric current, however, we could lend you for the winter, free of charge, a lantern that is worked by an automobile battery.”

⁵⁸ This was not, at the time, Bell company policy. These employees requested illustrated lectures on their own initiative. Letter from G.L. Long, The Bell Telephone Company, to W. Bovey, May 4, 1936. McGill University Archives, R.G. 44, c.8, no. 12, ref. 8/1/60.

⁵⁹ Letter from C.H. Dawes to Gerhard Lomer, October 27, 1936. McGill University Archives, R.G. 44, c.8, no. 12, ref. 8/1/60. Although this letter was addressed to Gerhard Lomer, Director of the McGill Library, it

This series of courses was obviously not part of any professional training program, and could not be taken for university credit. Its main purpose was to provide information, to give people an array of general knowledge and, at the same time, to entertain the audience as much as possible. Judging by the rather arid material covered in some of these courses, the magic lantern certainly played a key role here. Whatever the case, this type of activity was evidence of a desire to raise the educational level of the Canadian population, and was really and truly conceived as a community service. This view is conveyed in a letter that Wilfrid Bovey wrote in 1935 to the Director of Protestant Education in Québec. “While the lectures are not primarily intended for children, they are used for children, but are still more useful to teachers who want to render some special service to the community in which they are placed.”⁶⁰

The Lecture Designers and Producers

The Canadian government supplied the Department of Extramural Relations with a number of these readymade lectures. Although they had so far done little in the area, both the federal and provincial governments were beginning to show a greater awareness of—or more interest in—adult education⁶¹. And at a time when the Great Depression was

was later forwarded to Wilfrid Bovey, head of the Department of Extra-mural Relations.

⁶⁰ Letter from W. Bovey to W.P. Percival, December 9, 1935. McGill University Archives, R.G. 44, c. 8, no. 12, ref 8/1/60.

⁶¹ Gordon Selman and Jindra Kulich, “Between Social Movement and Profession: A Historical Perspective on Canadian Adult Education,” in G. Selman, *Adult Education in Canada: Historical Essays* (Toronto: Thompson Educational Publishing, 1995) p. 30.

hitting workers very hard, some of these governments readily encouraged programs intended to maintain the morale of Canadians⁶²: the service that Bovey offered can certainly be seen in this light.

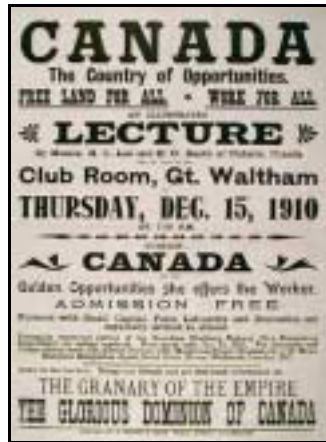
While some of the courses may have been drafted by McGill University professors,⁶³ it is not certain that the magic lantern slides and the booklets provided by the Canadian government were designed to meet the specific needs of McGill, or for its sole use⁶⁴. Rather, this type of documentation could have been produced in keeping with a completely different type of logic. For a long time already, the Canadian government had been encouraging the production of “illustrated lectures” for the purpose of promoting Canada’s image abroad. It did so particularly—at least since the end of the 19th century—in order to boost immigration⁶⁵.

⁶² Letter from W. Bovey to W. Meyer, South African Government (Trade Commissioner), February 11, 1936. McGill University Archives, R.G. 44, c.8, no. 12, ref 8/1/60.

⁶³ W. Bovey is probably the author of the text on the province of Saskatchewan, as well as of the booklet, “Canada’s Agricultural Lands and Development.” See his personal notes and his correspondence with P.C. Armstrong of Canadian Pacific, dated December 9 and 12, 1938 : R.G. 44, no. 12, ref. 8/1/60 et 8/1/13.

⁶⁴ Thus, when McGill’s illustrated lectures service was cancelled in 1936, the head of the Women’s Institute of MacDonald College decided to ask the Canadian government (Department of the Interior) for the same type of conference kit. Letter of Hazel B. McCain to W. Bovey, September 16, 1936, R.G. 44, c.8, no. 12, ref. 8/1/60.

⁶⁵ J.M. Colmer, London, England. Letter from JE Evans, who proposes to give illustrated lectures on Canada, November 17, 1887, and response dated December 8, 1887; W. Walford, London, Ontario: Letter with regard to illustrated lectures given in England in order to promote immigration into Canada, May 20 and 21, 1891. National Archives of Canada, file R.G. 17, Agriculture, volume 559, folder 62776, access code, 90.



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In fact, several other countries provided McGill with similar kits. They included France, Czechoslovakia, China, Great Britain and some of its current or former colonies, i.e., the Bahamas, Jamaica, India and South Africa⁶⁷. Among these, the governments of independent countries undoubtedly had their own promotional services. Moreover, in the mid-1930s they were still clearly using the magic lantern for this purpose. Or they at least had series of magic lantern slides and accompanying booklets within easy reach, so that they could distribute them on demand.

Moreover, we know that four of the courses offered by McGill on the “history of Canada” originated with Ontario’s Education Department⁶⁸. These same courses were also listed in a catalogue produced in 1931 by the Ontario Government’s Motion Picture Bureau. The introduction to this

document betrays a twofold concern with education and promotion:

“For a number of years the Treasury Department of the Ontario Government has endeavoured to promote throughout the Province a service for the improved education of its people, particularly to familiarize them with the resources of the Province of Ontario, by means of motion pictures, still pictures and lantern slides.”⁶⁹

A glance at the Ontario catalogue shows that, already in 1931, the section devoted to the magic lantern was less equipped than that given over to films made for public distribution. In short, for the government as well, the era of the magic lantern was coming to an end.

McGill University and the Canadian Pacific

The Canadian Pacific Railway also produced at least two of the conference kits made available by McGill University’s Department of Extramural Relations: *Across Canada by the CPR* and *History of the CPR*. In fact, this company already had its own photography department—it went back quite some time—and kept a tight control over its own publicity⁷⁰. Starting

⁶⁶ McCord Museum of Canadian History Collection.

⁶⁷ See the correspondence between W. Bovey and M. Meyer, (Trade Commissioner) of South Africa, 1936. McGill University Archives, R.G. 44, c.8, no. 12, ref 8/1/60.

⁶⁸ Bovey points out that these courses were designed, approved and used by the Ontario Department of Education. Letter from W. Bovey to W.P. Percival, December 9, 1935. McGill University Archives, R.G. 44, c. 8, no. 12, ref. 8/1/60.

⁶⁹ *Province of Ontario Motion Picture Bureau Catalogue*, Toronto, 1931. McGill University Archives, R.G. 44, c. 8, no. d’acc. 12, ref. 8/1/60.

⁷⁰ Although Canadian Pacific regularly employed photographers prior to this date, its photography department was created in 1892 and was under the direct control of the advertising department. Canadian Pacific Archives, CPR Bulletin, April 1, 1924, p. 14.

in 1884⁷¹, it began to use photographic magic lantern slides for this purpose. The goals and clientele of this publicity varied, as did the technologies used to produce it. Thus, one of the first versions of a brochure entitled *Across Canada by the CPR* (1905) was clearly intended to promote luxury tourism. The target group undoubtedly grew over time. We know that, in the two decades that followed, this series of photographic magic lantern slides was expanded and distributed throughout the country. At the same time, new versions⁷² of the accompanying text were drafted and supplied to representatives of CP passenger rail service.

It is possible that this kit, too, helped to promote immigration to Canada. Indeed, during the first third of the 20th century, Canadian Pacific was not only one of the two great railways in Canada, but also one of the country's biggest employers, particularly of immigrant labour. At a time when the initiative in this area was left largely to the great mining, timber and transportation companies, Canadian Pacific played a very active role in immigration, and even had its own immigration agents abroad. It is more likely, then, that a previous version of the lecture offered by McGill was used in the advertising campaigns⁷³ that CP

conducted in Canada and the United States in the early 20th century in order to facilitate the sale of its lands in Western Canada.

The second text supplied by CP adopted a direct yet familiar tone to frame the history of Canada within that of the company itself:

“To us in this country the history that is really important is the story of nation building, the story of the planners and the engineers, the railway builders, the bankers, the business and professional men who between them made Canada.”

Although this brochure was, like the others, clearly offered as part of McGill's lecture series, it was addressed primarily to the employees of Canadian Pacific. A good many of these lived in—or often visited—small isolated corners of Québec and Ontario. In Québec, in particular, CP financed the construction of YMCAs (thereafter called “Railway YMCAs”) in order to counter the effects of such isolation and give its employees recreational services and courses, in addition to places where they could meet⁷⁴. Likewise, CP, in conjunction with the local YMCAs, assumed the bulk of the transportation and other costs associated with the delivery of the lectures offered by McGill. Here, of course, the aims of adult education

⁷¹ Canadian Pacific Archives, *CPR Passenger Department Bulletin*, February 1932, p. 7

⁷² Canadian Pacific Archives, *Canadian Pacific Railway Bulletin*, January 1, 1919, p. 4; and February 1, 1920, p.7. Slightly modified versions of the same texts were produced later in the 1920s and early 1930s. See documents no. X1132, X2305 and 3010.

⁷³ A 1916 report of this company's Department of Natural Resources mentions the production of articles and other print documents to advertise in Europe and the United States. This report recommends the creation of an advertising campaign directed at the United States and Canada and oriented around the sale of company land. Mention is also made of “lecture campaigns, in conjunction with district offices in

United States (sic), illustrated by moving pictures and colored slides of agricultural scenes in the West.” Canadian Pacific Archives, “Department of Natural Resources: Extracts From the First Meeting of the Advisory Committee of the Department of Natural Resources, held April 1st, 1916.”

⁷⁴ Canadian Pacific Archives, *Canadian Pacific Railway Bulletin* no. 123, April 1, 1924, p. 14.

overlapped with a policy of industrial paternalism⁷⁵.

The Magic Lantern's Final Travels

The other users of McGill's travelling lecture series were obliged, of course, to assume full responsibility for rental and transportation costs. The Great Depression, however, gradually drained away the financial resources of a good many of them. Also, when the Department of Extramural Relations was forced to ask for a slight increase in the amount of its deposit, a number of clients dropped the service. The situation became so serious that the very existence of the program was threatened. In fact, the service was cut in 1936. It was restored, however, in 1939, and most likely continued for a few more years⁷⁶.

In the aftermath of World War II, the magic lantern was completely outdated, and its heyday long in the past—35 mm slides had been around since the 1930s. With the Great Depression and the war over, they could be produced inexpensively and soon came to replace the fragile and cumbersome glass slides⁷⁷. At that point, the magic lantern became a museum curio. For nearly four

decades it had been involved in almost all aspects of life at McGill University, from study and teaching to endeavours to reach a wider audience. This is the story told by the McCord's magic lantern, and by the precious collections of glass lantern slides that have been brought together at the McCord Museum.

⁷⁵ See in particular, "Adult Educational Possibilities in the Algoma District, C.P.R." (undated). This document was written in the late 1920s or early 1930s. It deals with the Ontario cities or areas of Cartier, Shreiber, Chapleau and White River. McGill University Archives, R.G. 44, c.7, no. 12, ref. 8/1/30.

⁷⁶ As evidenced by the series of letters Bovey received in 1936. In the early 1940s, McGill's travelling library service was transferred to MacDonald College. Only a few years later, people no longer talked about the magic lantern slide series it had offered. See the series of letters that Bovey received in 1936. McGill University Archives, R.G. 44, c.8, no.2, ref. 8/1/60.

⁷⁷ Stanley Triggs, *Magic Lanterns*, op. cit.