Changing the Game

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The written part of my integrated thesis, "Changing the Game," is based on Georges Méliès' "Les Vues Cinématographiques," published in 1907. "Les Vues Cinématographiques" is a behind the scenes conversation about the difficulties and challenges he faced while making his films. Méliès' exquisite and intricate work and absolute attention to detail in his backdrops and props are apparent in his *fantastique* and timeless views. His chat is "a classic of the primary-source literature of early cinema," which has been published in several languages such as English, German, and Italian. However, as Roland Cosandey notes, "None of these editions reproduces the [...] illustrations of the original version, which constitute nevertheless an invaluable primary iconographic source." These photos and photographs from other primary resources served a critical purpose in my thesis as they were the basis of modeling Méliès' studio in 3D. They were not just "illustrations." I imitated the style and presentation of the original publication, which is very chatty and complemented by many historical photographs.

I chose to illustrate the written part of my thesis to show the complexity of Méliès' studio and the process of making his films, which were crucial for me to completely understand in order to remake *Les Cartes Vivantes/The Living Playing Cards* (1905). The photographs I picked illustrate the multiple renovations of his studio, which helped me model the studio in its entirety as it existed in 1907, inside and outside. There have been a few attempts to reconstruct Méliès' studio and remake some of his films in VR by Espace Electra, Paris, Cinémathèque Française, and Google. However, unlike mine, where both the studio and my remake of his film are realistic, theirs are very cartoonish. Jacques Malthête describes their attempts as "the result is unfortunately full of mistakes." In addition, several of the photographs show actors and their

¹ Matthew Solomon, *Méliès Boots: Footwear and Film Manufacturing in Second Industrial Revolution Paris* (Ann Arbor: University of Michigan Press, 2022), 125.

² Roland Cosandey, "Georges Méliès as *L'Inescamotable Escamoteur*: A Study in Recognition," in Cherchi Usai, ed., *A Trip to the Movies*, 99n6. Quoted in Solomon, *Méliès Boots*, 126.

³ Jacques Malthête, and Matthew Solomon email communication, March 28, 2023.

costumes and makeup, people working on set and constructing some props, stage machinery, and the cameras Méliès used. These photographs also show how "film production was a collaborative enterprise that required 'the metteur en scène, the stagehands, the actors, and the operator taking the view,' [...] the scale of some of his largest and most ambitious productions could require '20 to 30 actors, 150 to 200 extras, a couple of dozen stagehands, dancers, wardrobe people and hairdressers, customers, and the rest."

In his "Les Vues Cinématographiques," Méliès writes, "In this chat, I propose to explain as best I can the thousand and one difficulties that professional must surmount in order to produce the artistic, amusing, strange, or simply natural subjects that made the kinematograph so popular around the world."5 In my chat, I will explain to you the thousand and one difficulties I faced modeling Méliès' studio in 3D. Like him, "my intention is primarily to examine unknown aspects of how kinematographic views are made, in particular the difficulties audiences are unaware of but are encountered at every step of executing works that appear quite simple and natural." My take on this is that Méliès explained the struggle for the curious minded and for those who discredited his hard work. He also wrote it to commemorate his legacy, cleverly without revealing all of his tricks. It is noteworthy that Méliès first and foremost was a magician before he became a filmmaker. Throughout his film practice, he kept the magician in him alive. He never revealed everything about his practice, only teasing spectators. A true magician never reveals their secrets, and since he had many competitors at the time, he surely was not going to give away his secrets. Thus here, I am arguing why the practice-as-research method I used for this kind of integrated thesis is beneficial for historical research and creative practice. How this

⁴ Solomon, Méliès Boots: Footwear and Film Manufacturing in Second Industrial Revolution Paris, 126.

⁵ Georges Méliès, "Kinematographic Views," ed. Jacques Malthête, trans. Stuart Liebman and Timothy Barnard, 1907, 136.

⁶ Méliès, "Kinematographic Views," 136.

method revealed some essential and insightful results, and what I learned and continue to learn from merging practice and research in film history.

My Version of Practice-As-Research Method?

Looking at and observing 2D photographs and illustrations and reading many texts are undoubtedly essential in conducting research; it is something I had to do to build the 3D model. However, learning through experience allows us to understand a topic from a different perspective. Something that I also learned through conducting my Honors research. Something about being inside a virtual reality environment is very empathic. Before I began modeling Méliès' studio, I translated several French texts, read many books, essays, and articles about Georges Méliès, as well as analyzed countless photographs, drawings, and illustrations. I also assisted in the publication of two books about Méliès, which exposed me to countless primary resources that were very beneficial to my research. However, it was not until I stepped into the studio and walked around that I felt how real this was. I was able to imagine Méliès directing his actors as well as imagine actors rehearing their scenes. Before then, it was just history, but now, I am able to experience and understand this history. I learned many things by being inside the studio that I otherwise would not have thought of by just reading and observing primary and secondary sources. Empathy is something you will not feel until you experience it. For me, as I was walking around the studio, and went all the way back to the camera booth, I felt my claustrophobia creeping in because of how small and dark the space was, which made me think that it was probably ten times worse as it was likely much darker. How could the camera operator stand behind the camera in that small and dark booth for a long time? My project, Reshuffling the Deck, is more in the spirit of Madeleine Malthête-Méliès, Méliès granddaughter and a biographer who ensured that Méliès' legacy would continue to live not only in French but in several other

languages, including English. She dearly loved her grandfather and wanted to see his legacy continue to live. She wanted people to understand his struggle from the inside.

This method proved effective in understanding some of the difficulties to which Méliès referred, including lighting, insufficient space, finding actors, and expenses, to name a few. There are numerous helpful articles, essays, and books about early cinema and Méliès; however, I argue that our understanding advances in new ways once we are fully immersed inside a virtual early cinema studio. It changes our perspective of early films and how they were made. We become more aware of the space, for instance, where the camera was positioned, the distance between the camera and the stage, how big the stage was, how deep the trapdoors were, and how high the ceilings were. All of these were significant factors in how his films were made. Through this method, I was able to analyze Méliès' first studio further and raise questions about it, to which Georges Méliès' great-grandson, Jacques Malthête, had to do further research to find some of the answers. Other essays and books about early cinema, and Méliès specifically, have discussed Méliès' studio and some of its renovations, but no one has discussed the original studio in its primitive state and what it was made of or how high the studio was. Although I did not find answers yet, I still was able to raise these questions that were never before discussed. In addition, my intervention revealed new insights about Méliès' films in relation to the size of the studio after the enlargement and the several renovations it underwent.

Students in University of Michigan's *Film History: Origins to the French New Wave* (FTVM 352) were assigned to visit the Duderstadt Center and experience my 3D model after they read Méliès' "Les Vues Cinématographiques," then write about their experience and whether or not it changed their understanding of early cinema. Many of them were amazed by the small size of the studio and how the studio was made out of wood and iron rather than just

the only source of light was the sun shining through the windows. Some of them questioned how weather conditions would have affected the shooting process and were astounded by the fact that there was one radiator to heat the studio during winter. They were also curious about how many rooms were inside the studio and what they were used for, while several others were interested to learn how the trapdoors worked. Now it is my turn to share my astonishment after reading their comments! I was surprised by how many of them compared Méliès' studio to either warehouses or studios nowadays before they were virtually immersed inside the studio. Nevertheless, I was pleased that experiencing my 3D model got them to think critically about Méliès' studio and how the space was used. This goes on to show how important it is to learn through experience, how VR is an incredibly effective tool for teaching and studying space and architecture in films, and how little the undergraduate film history curriculum focuses on the logistics of film production.

I will refrain from explaining and analyzing his films as there are countless books and essays that address this subject in detail. Rather, my aim is to understand the space and architecture in Méliès' films. I will start by explaining in detail what each part of the studio was used for and how the studio was operated as a whole.

Understanding Atelier A:

Méliès' studio, which he called Atelier A, underwent several renovations after its construction in 1897. The studio was also referred to as "atelier de prises de vues," which would roughly and literally translate to "studio for the making of views." The terms "studio" and "camera" originated in Italy and would later become more common to use. Méliès built it in the

vegetable garden on his property in Montreuil, France.⁷ It is noteworthy that Méliès designed it himself based on the size and layout of photographic studios and the Théâtre Robert-Houdin.⁸ Méliès referred to his studio as a "photographic studio (on gigantic scale)" and a "small-scale likeness of a fairy theater" because, although the dimensions of the stage inside of it were the same as the Théâtre Robert-Houdin, it also contained stage machinery such as the Châtelet theater in Paris where *féerie* were performed.¹⁰

To build the studio in 3D, I had to research and analyze the studio in its multiple renovations. To do this, I used primary resources of floor plans and photographs published by Maurice Noverre and Jacques Malthête. I then constructed a detailed history in English of its uses and transformations. In 1929, in the journal *Le Nouvel Art cinématographique*: "La Vérité sur L'invention du Spectacle Théâtral Cinématographique" Noverre shared his drawings of Méliès' studio. When I was comparing the multiple available floor plans we have with the photographs of the studio circa 1907 and 1945, it seems that Noverre added an extra small building placed right after the lean-to one, which is the booth where the camera was usually positioned at. He also left out the two curved corners on each side of the studio; however, he did add the measurement of their width to the stage. According to Brian R. Jacobson, however, Noverre's description of the studio is the most thorough, which makes sense given that he was in direct contact with Georges Méliès himself. Years later, in 1996, Malthête published his attempts at digitally drawing the first studio as well as the 1900 renovation floor plan in his "Méliès Images et Illusions." Although he made a few dates and dimensions errors, his later

⁷ Madeleine Malthête-Méliès, *Magnificent Méliès: The Authorized Biography*, ed. Matthew Solomon, trans. Kel Pero (Ann Arbor: University of Michigan, 2022), 135.

⁸ Laurent Mannoni and Jacques Malthête, *Les Deux Studios de Georges Méliès, Méliès, Magie et Cinéma*, 2002: 138; Brian R. Jacobson, *Studios Before the System: Architecture, Technology, and the Emergence of Cinematic Space*(Columbia University Press, 2015), 60.

⁹ Méliès, "Kinematographic Views," 141-142.

¹⁰ Solomon explains, "an early fairy tale film genre with which Méliès was closely associated" Solomon, *Méliès Boots: Footwear and Film Manufacturing in Second Industrial Revolution Paris*, 15.

¹¹ Jacobson, Studios Before the System: Architecture, Technology, and the Emergence of Cinematic Space, 227.

essay "Les Deux Stúdios de Georges Méliès," published in 2002, rectified those mistakes. In addition, he reproduced Noverre's article with supplementary explanations and comments. ¹² Malthête also published the 1899 renovated floor plans that Méliès himself drew. These drawings were the most faithful to what the studio's interior and exterior actually looked like. In the same book, he also published a drawing of the first studio.

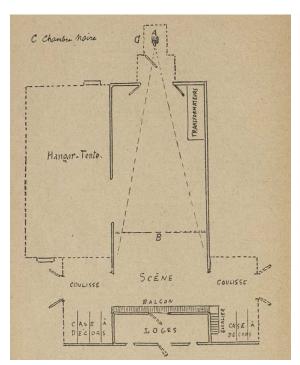


FIGURE 1. Studio A floor plan.

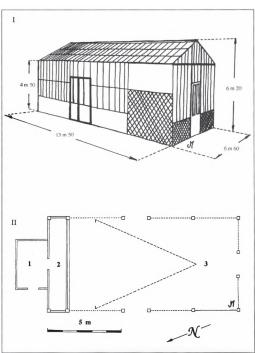


FIGURE 2. Jacques Malthête's attempt at reconstructing the original studio A in its prime state.

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¹² Malthête, Les Deux Studios de Georges Méliès, 136.

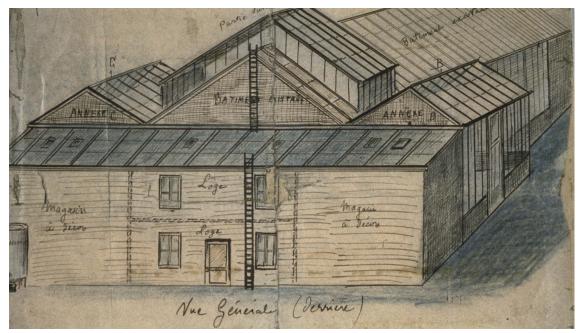


FIGURE 3. Enlargement plan for Studio A 1899- Drawing of the back of the studio by Georges Méliès.



FIGURE 4. Georges Méliès' Studio A after it was demolished in 1945.

The studio was built from the ground up with wood and frosted glass "with the exception of several rows of transparent glass facing the stage." The wood skeleton, however, was too

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¹³ Malthête, Les Deux Studios de Georges Méliès, 61.

weak to support all the heavy glass. The roof weight was estimated to be 14,000 kilos (15.43) tons)¹⁴, which meant a catastrophic event was inevitable according to the contractor who worked with Méliès to ensure the building was functional. Not wanting to waste more time and resources, Méliès elected to support the studio with iron frames bolted in the wood studs. He also replaced the wooden roof trusses with iron trusses. As a result, the first renovation doubled Méliès' already large investment to 70,000 francs. ¹⁵ Méliès oriented the studio to the north-north-east and south-south-west; that way, the sun would illuminate the stage everyday between 11 a.m. and 3 p.m, and the sun would shine on the front of the stage at 1 p.m. ¹⁶ Incidents were almost always inevitable when filming, but no matter what happened the filming must go on within the day. Malthête-Méliès writes, "Méliès ensured that no one dragged his or her feet, and, although his playful tone rarely changed, he possessed the art and manner necessary to direct others." Time was of the essence when it came to shooting his films because they never knew when a cloud would go over the studio, and they would lose the shining sun illuminating the stage. Sometimes the clouds stayed for a long time, so they had to stop filming, and Méliès sent everyone back home, but not without paying them first. With that, he was quite generous, paying them 20 gold francs.¹⁷

Essentially, the studio looked like a trapezoid shape, as Méliès described it:

The camera booth and operator are located at one end, while at the other end is a floor, constructed exactly like a theater stage and fitted with trapdoors, scenery slots, and uprights. Of course, on each side of the stage there are wings with storerooms for sets, and behind it there are dressing rooms for the actors and extras. Under the stage are the workings for the trapdoors and buffers necessary

¹⁴ Malthête, Les Deux Studios de Georges Méliès, 141.

¹⁵ Maurice Noverre, "L'oeuvre de Georges Méliès: Etude retrospective sur le premier « Studio cinématographique » machiné pour la prise de vues théâtrales," *Nouvel Art Cinématographique*, 2d ser., no. 3 (July 1929): 69; Malthête, *Les Deux Studios de Georges Méliès*, 141; and Jacobson, *Studios Before the System: Architecture, Technology, and the Emergence of Cinematic Space*, 60. In Malthête-Méliès, *Magnificent Méliès: The Authorized Biography*, Malthête-Méliès notes that the large investment was 90,000 francs, "with flooring installed and painting done," 137.

¹⁶ Malthête, Les Deux Studios de Georges Méliès, 142; Jacobson, Studios Before the System: Architecture, Technology, and the Emergence of Cinematic Space, 61; Malthête-Méliès, Magnificent Méliès: The Authorized Biography, 150.

¹⁷ Malthête-Méliès, Magnificent Méliès: The Authorized Biography, 151.

for the appearance and disappearance of the diabolical gods in fairy plays and slips in which flats can be collapsed during scene changes. Overhead, there is a grate with pulleys and winches needed to maneuver requiring power (flying characters or vehicles, the oblique flights of angels, fairies, and swimmers, etc.). Special rollers help to move the canvas panoramas while electric lamps are used to cast the image of operations. In short, we have a quite faithful, small-scale likeness of a fairy theater. The stage is about ten meters wide with an additional three meters of wings both stage left and stage right. The length of the whole, from the proscenium to the camera, is seventeen meters. Outside, there are metal sheds for construction materials, props, and costumes.¹⁸



FIGURE 5. Georges Méliès' Studio A seen from the southwest, 1901.

Once Méliès began shooting his films inside the studio in 1897, he rarely moved the camera from its designated booth. There is an exception to every rule, however, even in Méliès films! The trick films that Matthew Solomon describes as "seemingly defy the law of gravity onscreen" are *L'Homme Mouche/ The Human Fly* (1902), *La Femme Volante/ Marvellous Suspension and Evolution* (1902), and *L'Équilibre Impossible/ An Impossible Balancing Feat* (1902). Méliès mounted the camera over one of the metal walkways above the balcony for this trick effect. ¹⁹ This trick effect would later be known as "bird's eye shot," which Méliès stopped making after these three films. ²⁰

¹⁸ Méliès, "Kinematographic Views," 141-142.

¹⁹ Malthête, Les Deux Studios de Georges Méliès, 154.

²⁰ Solomon, Méliès Boots: Footwear and Film Manufacturing in Second Industrial Revolution Paris, 127.





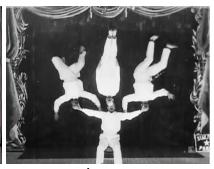


FIGURE 6. From left to right: *L'Homme Mouche, La Femme Volante, and L'Équilibre Impossible*.

Since there are no detailed English descriptions of Studio A's exterior and interior and its several renovations, I will explain how it kept evolving and what each part of the building was used for. Starting with the first studio in its primitive state, which was built in 1897, was one long rectangular room 13.50 meters long by 6.60 meters wide. We do not know anything about how high the studio was. Behind the stage, the end of the studio, was a very small dressing room. It was 5 meters long by 4 meters wide. There were few performers at the early stages of Méliès journey to fame, so there was enough space for the performers. We also do not have any photographs of the original studio except for a floor plan that Méliès drew himself.

²¹ Noverre, "L'oeuvre de Georges Méliès: Etude retrospective sur le premier « Studio cinématographique » machiné pour la prise de vues théâtrales," *Nouvel Art Cinématographique*, 70; Malthête, *Les Deux Studios de Georges Méliès*, 137.

²² Noverre, "L'oeuvre de Georges Méliès: Etude retrospective sur le premier « Studio cinématographique » machiné pour la prise de vues théâtrales," *Nouvel Art Cinématographique*, 70.

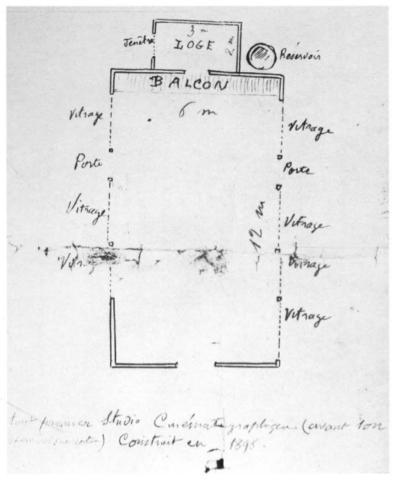


FIGURE 7. The very first cinematographic studio (before its expansion) built in 1897.

Upon a back-and-forth email communication in early April 2023 between Malthête, Solomon, and me, we discussed some of the questions that resulted from my research. One of the questions is about the dressing rooms in the studio before the enlargement in 1899-1900.

Malthête writes:

[...] We only have this single drawing representing the Studio A in its primitive state. What does it tell us about dressing rooms? Not much. Is there one or two dressing rooms before 1900? Apparently two dressing rooms, one above the other, since there is a door to the balcony (second floor), which does not have stairs! (perhaps the balcony was accessed by a ladder?). There is also a window to the west on the second floor and probably a glass door in the same place on the first floor, if there are two dressing rooms however. [...] All this is not obvious. We can see that this (or these) dressing room(s) do not cover the whole width of the studio. After the 1899-1900 enlargements, they were included in a building that took up the entire width of the studio, including the wings (this building being

composed of the two scenery stores in the axis of the two backstage areas added in 1900 and the two dressing rooms between the two stores).

Malthête and I both agreed to trust Noverre on the information he provided for the original studio, as he later wrote to me on another email thread:

[...] In the end, I would lean towards Noverre's version. On the one hand, because he gets his information directly from Méliès, on the other hand because the plan drawn by Méliès can be interpreted in the following way: Noverre speaks of one loge and not two. As for Méliès' plan, it is quite clear that the balcony was added just to indicate its location without specifying at what height, all the rest of the plan being at level 0. That means that this only loge, whose height is unknown to us, has one opening that communicates with the studio (door) and another that opens outside to the west (glass door or window).

As mentioned previously, the dressing room/s was/were small, but after the enlargement of the studio, Méliès expanded the back building to the exact width of the entire studio. The first floor was the women's dressing room, which can be accessed through two doors, either from outside the studio or inside the studio, where the door is right under the balcony. On the other hand, the men's dressing room was located on the second floor, which can be accessed by a staircase inside the studio that also leads to the balcony. For unknown reasons, the men's dressing room had two doors right next to each other. The scenery stores on both sides of the studio, which also shared walls with the dressing rooms, had racks to store props and backdrops.



FIGURE 15. Women's dressing room on the first floor in Studio A, circa 1905.





FIGURE 16. The Queen's costume in *Les Cartes Vivantes* (1905).

FIGURE 17. One of the scenery stores in Studio A.

Always full of marvelous ideas, Méliès was eager to start making fantastic views with theatrical machines, so the first renovation appeared in 1899. He had pits dug in the stage area

that were 5.40 meters long by 2 meters wide and 3 meters deep. It was then modified to look like a "théâtre de féerie" stage with "paths, trapdoors, decorative masts, lifts for apparitions, star traps, grave traps, and winches, placed outside the studio, which was too narrow to put them inside." More challenges presented themselves as he wanted to make films with numerous actors, large vehicles, and flying characters. The first was the width of the stage. The 6 meters stage was no longer big enough for his views, so he added more space, making the stage 7 meters wide. However, that meant there was not enough space on both sides of the stage for actors to enter and exit the scene being filmed. It should be noted that the stage in the studio was theatrical, with a camera aimed at it. A common misconception that most likely originated from Méliès' "Les Vues Cinématographiques" is that the studio had always been 17 meters long. However, it was not until the first renovation that Méliès added a lean-to building to be able to move the camera further back from the stage, which was 3.50 meters long by 1.60 meters wide. This added to the total length of the studio, making it 17 meters long.

Once again, Méliès decided to construct and expand the studio! This time though, it is only at the studio's width level. He added one glass building on each side of the stage with the doors facing each other to form one long path, so performers could exit the scene being filmed smoothly. These two buildings were referred to as *annexes* and essentially served as the backstage, even though they were on the sides of the stage rather than the back. They were 3 meters wide, increasing the studio's entire width to 13 meters. The two annexes opened up to two rounded corners adjacent to the annexes.

²³ Malthête-Méliès, Magnificent Méliès: The Authorized Biography, 135.

²⁴ Noverre, "L'oeuvre de Georges Méliès: Etude retrospective sur le premier « Studio cinématographique » machiné pour la prise de vues théâtrales," *Nouvel Art Cinématographique*, 72-73; Malthête, *Les Deux Studios de Georges Méliès*, 138-140.



FIGURE 8. Photograph of Studio A's interior, facing the stage in 1907.

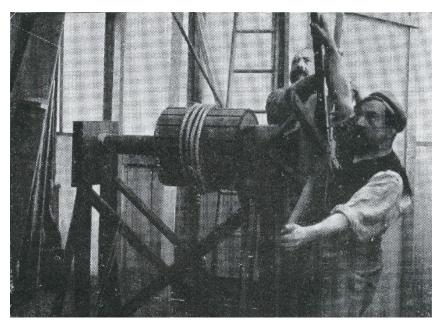


FIGURE 9. Photograph of one of Méliès workers using the winch just outside of Studio A.

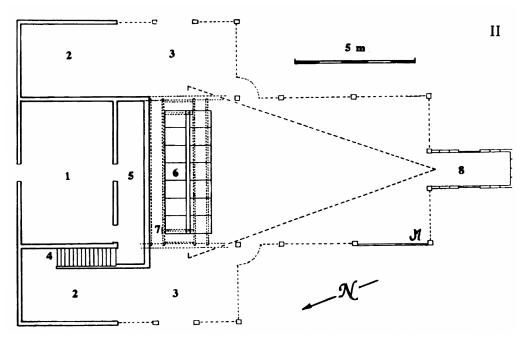


FIGURE 10. Jacques Malthête's attempt at reconstructing Studio A after its enlargement in 1900.

In figure 10, Malthête illustrates the camera's view with dotted lines, which was often sheltered in building 8, also known as the booth. Méliès then added a two-story building in the back, which was the width of the studio, replacing the small *loge*, also known as the dressing room, that was there in 1897. Yet again, Méliès renovated the studio. This time it was only the outside of the studio. He added a metal shed with an asphalt floor adjacent to the studio, which was also the size of the studio. A canvas roof and side blinds were added to the shed to shelter everyone from the sun and rain. This latest metal shed structure was built to avoid the horrific heat of the studio during the summer, which sometimes got as hot as 110 degrees. It was also used to construct and paint sets and wooden props. Occasionally, when they were working on a large production with many performers involved, they would turn the metal shed into a dressing room. Finally, a small building was built behind the lean-to one to make the camera move further back. Because of this, Méliès was able to shoot his films from a distance of up to 11 meters. ²⁶

²⁵ Solomon, Méliès Boots: Footwear and Film Manufacturing in Second Industrial Revolution Paris, 147.

Noverre, "L'oeuvre de Georges Méliès: Etude retrospective sur le premier « Studio cinématographique » machiné pour la prise de vues théâtrales," *Nouvel Art Cinématographique*, 73; Malthête, *Les Deux Studios de Georges Méliès*, 144.

This concludes the renovation journey studio A went through from 1897 to early 1900. In short, the several renovations and the buildings Méliès kept adding to the studio to enlarge it, such as the rounded corners and the camera booth, explain the weird shape of the studio.



FIGURE 11. Studio A viewed from the south circa 1905.



FIGURE 12. Workers building set pieces under the metal shed, 1907.

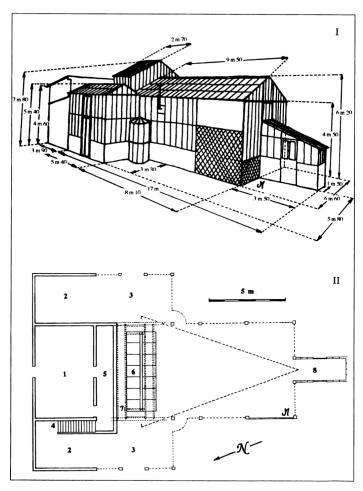


FIGURE 13. Jacques Malthête's attempt at reconstructing Studio A after its enlargement in 1900.

For the interior, I will use Malthête's floor plan to explain the inside of the studio. The studio was divided into thirteen connected parts.²⁷ Starting from the back, "1" corresponds to the artists' dressing rooms, "2" corresponds to the scenery storage, "3" corresponds to the annexes and rounded corners, "4" indicates the stairs of fifteen steps leading to the balcony, as well as the only way to enter the men's dressing room, "5" corresponds to the balcony²⁸, which was used in *Jeanne d'Arc/Joan of Arc* (1900), "6" corresponds to the stage, where the trapdoors are also located²⁹, "7" corresponds to the grates with pulleys for flying objects and characters, "8"

²⁹ The stage was constructed like a theater stage.

²⁷ The studio's interior was divided into thirteen different parts.

²⁸ It is unclear what the balcony was exactly used for other than reaching the men's dressing room. Upon an email exchange with Malthête, he writes, "The balcony was used to reach the men's dressing room by a staircase of fifteen steps. It was indeed the only way to get there. It was used in a few Méliès' films." The film Malthête refers to is *Jeanne d'Arc* (1900).

corresponds to the booth where the camera was placed nearly all the time. Learning about and modeling the studio's interior was just as fascinating and frustrating as the exterior. As mentioned previously, the studio was mostly made of wood, which was extremely hazardous given how frequently Méliès used fire and pyrotechnics effects in his films, such as smoke, fumes, and explosions. Stéphanie Méliès recalled, "One day they set the garden on fire with some explosive powder." ³⁰

Nevertheless, I should also note that Méliès was a pyrotechnician. He had already been practicing playing with fire for eight years at the Théâtre Robert-Houdin before he started making films with pyrotechnics effects in his studio. The smoke effect is the most used by Méliès. According to Solomon, "Artificial clouds of smoke in front of the camera were often used to punctuate the cinematic appearances and disappearances Méliès would later create by splicing the negatives on which these scenes had been shot." We can clearly see these effects in *Le Chaudron Infernal/ The Infernal Cauldron* (1903), *Les Cartes Vivantes/ The Living Playing Cards* (1905), and *Le Génie du Feu/ The Genii of Fire* (1908).



FIGURE 14. From left to right: Le Chaudron Infernal, Les Cartes Vivantes, and Le Génie du

Feu.

Like the exterior, the interior also went through numerous renovations. The walls and ceilings were covered with frosted glass except for three bays right in front of the stage that were

³⁰ Solomon, Méliès Boots: Footwear and Film Manufacturing in Second Industrial Revolution Paris, 114.

³¹ Jacques Malthête, "Un Feu d'artifice Improvisé? Les Effets Pyrotechniques Chez Méliès," 1895, no. 39 (2003): 2.

³² Solomon, Méliès Boots: Footwear and Film Manufacturing in Second Industrial Revolution Paris, 113.

clear glass in case of insufficient sunlight.³³ During summers, the blinding sunlight striking the ceiling's iron beams would cast shadows on the backdrop beneath the beams, making the final result of a film very terrible. In the beginning, Méliès had curtains hung on metal poles, just like how they did it in photography studios. However, this slowed down Méliès' work and proved to be a waste of time, so he replaced this curtain system with moving shutters made of drafting cloth that was mounted under the side of the roofs with pulleys and ropes. This rather innovative system of pulleys and ropes made it easy for one person to conveniently and quickly open and close the curtains with just one cable. "Pulling on this cable drew them up flat against the roof; letting go of it, their own weight opened them."³⁴ When they closed them, they would allow in a soft filtered light similar to that of frosted glass. When there was no sun, they would hang vertically from the roof, allowing the daylight to enter through the clear glass. Because of this, the operator in charge of the curtains would work according to how much light was needed for a scene without interrupting the filming process.³⁵ Ordinary viewers might have thought filming in a studio made of glass was relatively easy and did not require much labor, but they could not be mistaken anymore! As Méliès would say, "Obviously, one can have reflected only for a minute to express such an opinion."36

Reproducing Studio A in 3D:

I used photographs, and primary resources, to reproduce the final iteration of Studio A in 3D. Similar to the physical studio, the 3D model went through several renovations. Modeling the studio in 3D revealed several inconsistencies. This necessitated me to seek new information,

³³ Noverre, "L'oeuvre de Georges Méliès: Etude retrospective sur le premier « Studio cinématographique » machiné pour la prise de vues théâtrales," *Nouvel Art Cinématographique*, 69; Malthête, *Les Deux Studios de Georges Méliès*, 141.

³⁴ Malthête-Méliès, Magnificent Méliès: The Authorized Biography, 135.

³⁵ Georges Méliès, *Les Vues Cinématographiques*, 1907, 374-375; Malthête, *Les Deux Studios de Georges Méliès*, 149; Méliès, "Kinematographic Views," 142; Malthête-Méliès, *Magnificent Méliès: The Authorized Biography*, 135.

³⁶ Méliès, "Kinematographic Views," 136.

such as how many rooms were inside and what they were used for or how many panes of glass made up the studio's walls. The other irksome challenge was the measurements! Because the measurements Malthête provided in 1996 for the 1900 renovation have a few errors, I ended up electing the 1899 version's measurements for the two annexes and the two curved corners on each side of the studio. The exact year of when Méliès stopped renovating is unknown but most likely around 1907.

The balcony, however, was the most puzzling piece of the whole project. It almost made me go loca! I will explain this puzzle as best I can. Now that you have some understanding of the multiple parts of the studio, I can continue to share my frustration with modeling it in 3D. The balcony is only visible in the 1899 drawings by Méliès. As you can clearly see in the floor plan a few pages above, it is absolutely not obvious how the balcony looked from the outside and how it was connected to the rest of the studio. This became even more frustrating when I was examining other drawings and photographs of the studio. Although Malthête mentioned the balcony in his book and drew it in the studio's interior, as can be seen in Figure 13, it appears that he combined the balcony and the part of the building with the grates and pulleys into one building from the outside, which I later learned is not accurate, as I noted previously. This was a good lesson, not always to trust the digital age! Since the digital drawings were more clear than the ones Méliès drew, I assumed they would be more accurate. Alas, I was wrong. One summer evening as I was watching Jack le Ramoneur/ Chimney Sweep (1906), I noticed an extra building in the back. It looked exactly like the drawings Méliès drew of his studio in 1899. After further examinations of drawings and photographs and more research, it was confirmed that this building, indeed, was the balcony. This is one of my favorite Méliès' films simply because we

get to see some parts of his property, which happens to be one of the very few Méliès' films shot outside the studio!

Now, you might think I did not need to be too dramatic about this, but if I did not, then we still would not have a detailed description of the studio in English, and we would not have discovered some inconsistencies. Ultimately, I learned that the balcony is 1.30 meters wide and 6.20 meters high, the same height as the stage. The building in the middle, between the balcony and the stage, was where the grates and pulleys were, which was also the highest building in the studio.³⁷

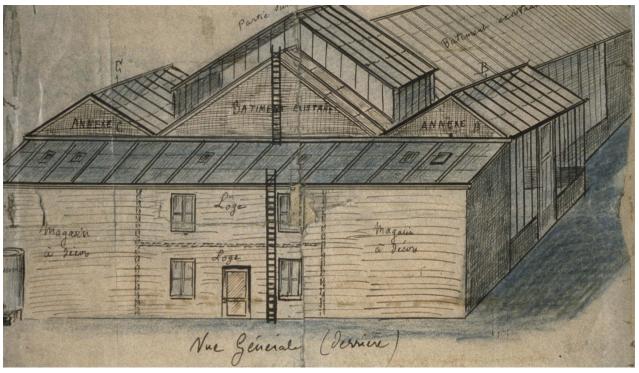


FIGURE 18. *Enlargement plan for Studio A 1899*- Drawing of the back of the studio by Georges Méliès.

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³⁷ This corresponds to building #7 as can be seen in Figure 13



FIGURE 19. Jack le Ramoneur digital frame enlargement.

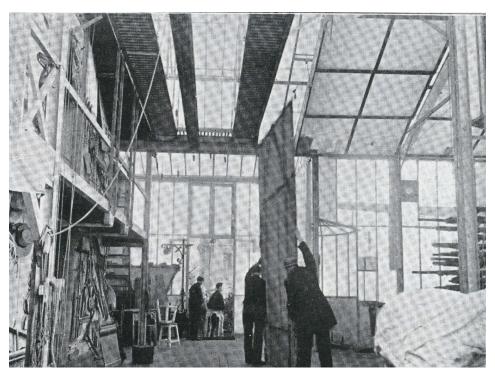


FIGURE 20. Photograph of the stage in Studio A taken from the garden side circa 1905.

Now I shall write about scaling the 3D model and some of the comments I received from everyone who went to experience it either at the M.I.D.E.N. or with virtual reality headsets. The first thing most of the students in FTVM 352 noticed was the size of the studio. Most of them

imagined the studio to be much bigger than it actually was. While their comments were delightful to read and genuinely showed how many of them were curious about how the studio was modeled in 3D, how long it took to model it, how the actual studio looked, and how Méliès operated it, it is funny how there are always a few spectators who are fast to assume that there is an inaccuracy on whatever they see simply because they do not understand how things operate, as one of the students noted how the scaling of the model might not be accurate because it seemed too small. However, as Méliès writes, "But there is always a group of spectators who will not be annoyed but rather delighted to obtain some information to satisfy their curiosity, which is, moreover, quite justifiable and natural in intelligent people who always seek to know the explanations behind what they are looking at." So I will share what I have learned so far from the practice-as-research method that I implemented in modeling the studio with those insightful spectators in the paragraphs below.

Although I have spent a little over two years now reading, learning, and analyzing Méliès' studios, films, and property, and months on modeling studio A, like those spectators, I did not comprehend the size of it until I was fully immersed inside it. That is to say, the best way to learn about something is to experience it! The studio was not by any means a tiny one; neither was it a huge one. It is easy to imagine that it was much bigger, though, based on how Méliès described it in his essay as well as from watching his films such as *Le Royaume de Fées/The Kingdom of Fairies* (1903). Another thing that I only paid attention to when I started modeling the studio was the radiator. This was also something some students in FTVM 352 acknowledged after experiencing the model. This makes me think about how one radiator is supposed to heat an entire building, especially since it was located toward the front of the studio. It makes me wonder how cold the dressing rooms would get during winter.

³⁸ Méliès, Les Vues Cinématographiques, 137.



FIGURE 21. Le Royaume de Fées digital frame enlargement.

It is easy to unintentionally overlook or miss specific details about a process or an object if we just read about it. One big surprise I found after experiencing going inside the studio was that there were no bathrooms. Although Méliès' house and the rest of his property were within a walking distance from the studio, it still does not make much sense how there is not a single bathroom inside the studio! Given how Méliès hated wasting time, it is ironic to think that anytime any of the cast and crew needed the bathroom, they would have to go to the closest property to use the bathroom and come back to continue shooting, when this could have been prevented if there was at least one single bathroom in the studio.

One thing that I somehow missed was what the two curved corners on either side of the annexes were used for. For a while, I foolishly thought there was no specific use for them. However, deep down, that did not feel right. There was nothing Méliès did that was illogic; everything was calculated. So I started searching again until I found the simple answer in Noverre and Malthête's writings. Actors used these corners to exit a scene without appearing in

the camera's view limit.³⁹ Modeling these two curved corners was irritating because of the software I used. Maybe I should have mentioned this earlier, but prior to modeling the studio, I had no experience with 3D modeling. So after some consultations with the Duderstadt Center at the University of Michigan, they advised me to use SketchUp, which is user-friendly. The only thing about SketchUp is that it is very easy to use when modeling quadrilateral shapes but absolutely horrible with anything rounded. So after many failed attempts, I asked for Stephanie O'Malley's help modeling the two curved corners. She kindly modeled them for me using a different 3D modeling program.

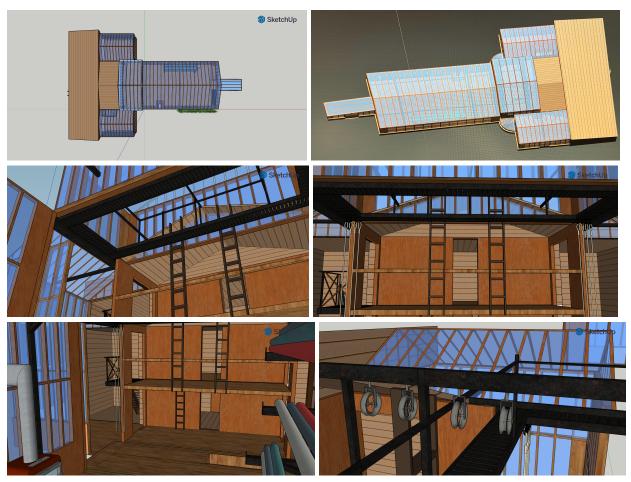


FIGURE 22. Images of Méliès' studio A that I modeled in 3D using SketchUp.

³⁹ Noverre, "L'oeuvre de Georges Méliès: Etude retrospective sur le premier « Studio cinématographique » machiné pour la prise de vues théâtrales," *Nouvel Art Cinématographique*, 73; Jacques Malthête, *Méliès: Images et Illusions* (Exporegie, 1996), 53; Malthête, *Les Deux Studios de Georges Méliès*, 145.



FIGURE 23. The 3D model projected at the M.I.D.E.N. at the Duderstadt Center, University of Michigan.

Méliès described how some parts of his studio worked, such as the pits and the overhead grate with pulleys. However, the experience of walking inside the studio allows users to appreciate further how his fantasy films were made. Additionally, it allows users to learn about the different parts of the studio and not just the scène. This is important for film analysis as we get to learn more about Méliès' films, such as how some characters fly or how they maneuver vehicles. *Le Palais Des Mille Et Une Nuits/ The Palace of the Arabian Nights* (1905) is an example of how some characters ascend from the pits and then fly up until they disappear.



FIGURE 24. Le Palais Des Mille Et Une Nuits digital frame enlargement.

The Remake:

Recreating *Les Cartes Vivantes/ The Living Playing Cards* (1905) and the decision making for my film was heavily impacted by the research I did. In preparation to shoot my film, I closely analyzed Méliès' film. I noticed the gesture differences between the Queen and the King, as well as the Magician's reactions and gestures towards them. On a surface level, it is quite noticeable how the Queen's movement and gestures are lateral. There is barely any movement in her performance. On the other hand, the King and the Magician's movements are both lateral and horizontal, with significantly big hand movements and gestures. While the Queen gets conjured out of the deck card, the King announces his presence by ripping off the deck card, scaring even the Magician! In addition, the Magician's gestures were flirtatious with the Queen. Whereas his gestures with the King were more playful and funny. After using the gestures database I created, I noticed that the Magician and the King never stop acting

throughout the film. But on the other hand, the Queen is motionless for most of the time she appears onscreen. This analysis made me rethink the gestures and performance in my film. What kind of acting did I want in my film? I researched and compiled a dance playlist of what I was envisioning for my film, before my performers and I choreographed the dance.

In addition, I did extensive research of historical playing cards from around the world looking for possible designs for the Joker and the Queen. In the original film, Méliès had a Queen and a King, but I replaced the King character with a Joker for my film. As I reshuffled my deck cards, the King no longer fits the trick. My trick film is about women empowerment, and women supporting women, so it was important to replace the King with a female character. The Joker deck card has always been my favorite deck card, since I was a child, so I did not need to think twice before I chose the Joker. To me, the Joker represents the mischievousness every duo needs in their relationship, be it platonic or not. Nevertheless, I thoroughly researched Joker deck cards throughout the years, and specifically female Jokers. Eventually, I decided to choose the Moon Fairy Joker. Like many nineteenth-century deck card designs, Méliès' film gives the Queen a name. For the Queen character in my film, I decided on Queen Catherine de' Medici of France. The research presented me with a different perspective about the trick of my remake. It was no longer Méliès' trick. It was mine to show. There were a few other queens that I considered, such as Queen Mary of Scotland and Queen Elizabeth I. However, I grew up reading so much about Queen Catherine de' Medici. I think she is a very strong female figure. And also had a very fascinating story, so I decided to choose her. In addition to this, de' Medici had a sorcerer friend, and she was also famous for her use of black magic. So it just made so much sense to me to have her perform with the Joker. Unlike Méliès' Queen of Hearts, I made mine the Queen of Spades, as she symbolizes dame and nobility.

I also extensively observed Méliès mise-en-scène before I decided on how I wanted my set to look like. It was important to me to have my set and backdrops stay faithful to Méliès'. Although I changed the trick, I still wanted to pay homage to him through my mise-en-scène. I eventually decided to use a backdrop Méliès drew for his film *The Palace of the Thousand and One Nights* (1905) for the first scene in my film. In addition to the extensive observation of his mise-en-scène, I researched backdrops used in early films, drawings used in theaters, and drawings by French artists that matched the aesthetics of my film. I then found a painting in *The Theatre of Marvels* by Marian Hannah Winter, which immediately caught my attention. I sent it to my set designer to redraw it and remove a few things I didn't want.

Even after two years of exclusively working on Méliès materials, I still don't know how he shot many of his films, and to say the least, this is beyond frustrating. For instance, I still cannot tell how or where in his studio he shot one of the scenes in *Le Royaume de Fées/The Kingdom of Fairies* (1903), which starts at 4:51. Another frustrating thing? I still don't know if there are 13 or 14 cuts in *Les Cartes Vivantes*! My favorite film! I analyzed every millisecond of the film, yet I still cannot tell if Méliès actually performed a real trick in the film, or if the splice is well hidden. But as Malthête puts it, Méliès always held back information about how he made his special effects. And although Méliès did reveal some of his secrets years later in his famous memoir "Les Vues Cinématographiques," many other untold secrets, including the one about my favorite film, alas died with him. The frustrating difficulties he discusses are challenges we would not completely understand until we try to remake one of his films, as I did and write more about it in my process and rationale paper. Nevertheless, one can only dream! So "Come and dream with me" as "The filmmaker Georges Méliès was one of the first to realize that films had

⁴⁰ Malthête, "Un Feu d'artifice Improvisé? Les Effets Pyrotechniques Chez Méliès," 2.

the power to capture dreams."⁴¹ And my dream is not only to figure out some of his secrets but also to continue recreating many of the works he did at his studio and the Théâtre Robert-Houdin. I dream about modeling the whole Méliès' property at Montreuil, as well as the Théâtre Robert-Houdin. In addition, to model many of his marvelous props and costumes in 3D. I also dream of building some of his famous automatons, which were recreated in *Hugo* (2011) by Martin Scorsese.

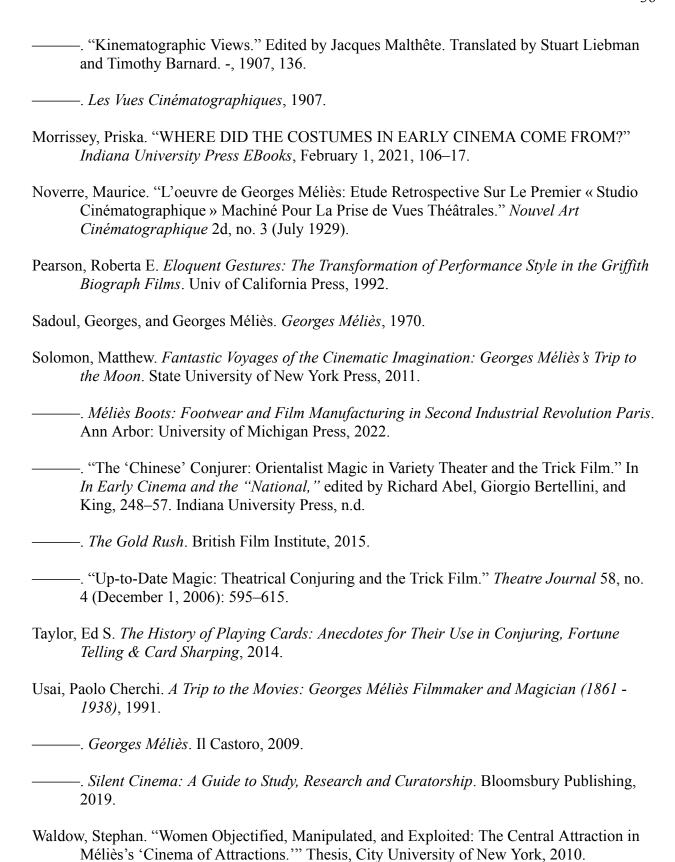
R. Albayat FTVM Honors Cohort 2023

⁴¹ Hugo, 2011.

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