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## Early cinema's touch(able) screens

*From Uncle Josh to Ali Barbouyou*

Wanda Strauven

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### Return of the rube?

Last spring a 'magic moment' happened at an afternoon screening of Martin Scorsese's 3D film *Hugo* (2011). When the end credits were scrolling across the huge screen-wall and the audience was leaving the auditorium, a little girl ran to the front. At first a bit hesitant, she reached up and touched the screen. Then she ran to her father who was waiting for her back at the entrance. Is this the 'return of the rube in the digital age', Malte Hagener wondered when he posted the anecdote on Facebook? Why did this little girl want to touch the screen? Was it indeed to find out 'the location of the images', as Hagener suggests?

Some while ago, I started to touch film screens – or rather, I made some attempts in an old-fashioned movie theatre where the screens actually hang too high for an easy reach. I would wait until the end of the credits before walking to the front and then, very furtively, jump up in order to touch. More often than not I would turn on my heels before reaching the front and walk away. The reason I imposed this awkward exercise on myself should not be found in (contemporary) 3D but rather in the so-called rube films of early cinema – and, more directly, in the discussion that followed a talk I gave about those films last January in Vienna. There, someone observed that she had never felt the urge to touch a screen in a movie theatre. Why would you indeed want to do so? How many film spectators have ever touched a theatrical film screen in their life? I then realised I had never done so myself and decided this had to change. I needed to become a rube.

In its early days cinema reinvented the genre of the rube, which at that time – as pointed out by Miriam Hansen – was a common stock character in ‘vaudeville, comic strips, and other popular media’.<sup>2</sup> The genre was constituted by depictions of the naïve attitude of a country rube (or yokel) who visits the city. For instance, Hansen cites the film *Rube and Mandy at Coney Island* (Edwin S. Porter/Thomas Edison, 1903). Most interesting for film scholars is a specific sub-genre of the rube film that takes place at the movie theatre, thus proposing an early form of self-reflexivity.

The prototype of such a meta-filmic rube film was made by British pioneer Robert W. Paul in 1901: *The Countryman and the Cinematograph* (aka *The Countryman’s First Sight of the Animated Pictures*). The surviving footage of Paul’s film is incomplete; it is missing both its beginning and, more crucially, its ending. However, we know what happened in the film thanks to its American remake by Edwin S. Porter: *Uncle Josh at the Moving Picture Show* (1902). Here, the character Uncle Josh goes to a vaudeville theatre where, like Paul’s countryman, he gets to see three moving pictures displaying the same scenes as in Paul’s rube film, in the exact same order. Porter also clearly makes use of the Edison trademark by crediting the Kinetoscope and by projecting two existing Edison films made in 1897: *Parisian Dancer* and *Black Diamond Express*. Uncle Josh’s reaction as a film spectator is joy (and imitation, onstage) in the first case and fear (and sheltering, offstage) in the second. Then a third and final film follows: *The Country Couple*, which was most likely shot for the occasion. It is a courting scene, taking place at the countryside (i.e., the rube’s own territory). According to the Edison catalogue, Uncle Josh thinks he recognises his daughter and decides to intervene.<sup>3</sup> He (again) jumps onstage, and in his attempt to punish the man flirting with his daughter he tears down the film screen and falls into the arms of the projectionist. Besides the rear projection, what is noticeable is the fact that the bottom of the screen literally touches the stage, functioning as a wall, like in modern multiplexes. However, the screen does not coincide with the wall. Its position is downstage (i.e., in the front of the stage) so that there is enough room for the projectionist to operate his apparatus onstage – that is, between the screen and upstage.<sup>4</sup>

Most often *Uncle Josh at the Moving Picture Show* and other similar self-reflexive early films are read in didactic terms; in the specific case of Porter’s character, his attitude is interpreted as a counter-example of the ‘look, but don’t touch’ rule.<sup>5</sup> He is clearly acting like a rube who does not understand that moving pictures are produced by a light projection onto a screen and that this screen should not be touched, only looked at. The question, however, is whether the early cinemagoer (that is, the early

*urban* cinemagoer) by 1902 still needed such a lesson. Following Thomas Elsaesser, on several occasions I have read this type of film as a form of disciplining – not through external regulations but through laughter.<sup>6</sup> Thanks to Uncle Josh's unsophisticated attitude, the spectator's attention is drawn to the screen and to what happens on the screen. It is a remedy against the distraction that characterised early moving picture shows, where spectators were maybe more interested in touching the arms or legs of their neighbours than in watching yet another arrival of a train.<sup>7</sup> In short, Porter's *Uncle Josh at the Moving Picture Show* (like Paul's *Countryman and the Cinematograph*) probably just functioned as a farce, as a comedy to amuse rather than educate the audience.

But there might be more at stake. While I retain the discipline-through-laughter reading still valid to understand shifts in spectatorship around 1900, I am wondering if the impulse to touch screens does not have more profound historical roots. By briefly exploring the history of art theory as well as the history of museum practices, in the first part of this article I aim to shed a new/different light on early cinema's interplay between seeing and touching. Here, my interest resides not so much in the screen itself (or the screen in comparison to the painter's canvas, as explored extensively by other scholars<sup>8</sup>); instead, I am concerned with the act of touching as a cultural, (art) historical practice. The second part of this article will be dedicated to the history of the screen – or better, of the word itself. By going back to the etymological origins of the word 'screen' I will trace an alternative screen history which is not limited to the media(ted) screen for projection.

The overall objective is to contextualise what I propose to call the 'early touchscreen' in a longer tradition of hands-on screen-based practices. Therefore, it could be said that there is indeed a return of the rube – not (only) in the digital age, but (also) at the turn of the last century. As I will argue, by touching the screen Uncle Josh and other rubes are re-activating older media practices. Following Erkki Huhtamo's media archaeological approach, the rube might then be considered as a 'returning *topos*', as a media convention or commonplace that '(re)appear[s] and disappear[s] and reappear[s] over and over again and somehow transcend[s] specific historical context'.<sup>9</sup> However, as the second part of this article demonstrates, words do not simply retain their meaning and neither do cultural practices. In a Foucauldian-Nietzschean manner, I hope to be able to point out – within this 'same' practice of screen-touching – some crucial discontinuities or shifts in meaning and in usage.<sup>10</sup>

My reading of shifting meanings and usages of screen-touching remains limited to the textual level of early cinema (particularly films by Porter and Georges Méliès). I treat these early films as historical evidence not so much for the viewing experience, but rather for the larger cultural practice of screen-touching. In other words, this article is less about (historical) spectatorship than about the screen as ‘something’ that is touched. By coining the expression ‘early touchscreen’, I consciously want to refer to both ‘early cinema’ and ‘touchscreen’. However, let me point out from the very beginning that the ‘early touchscreen’ is conceived of as a *touchable* screen – that is, a screen that *can* be touched, and not as a touchscreen in today’s sense of a screen that *must* be touched’ (as aptly defined by Nanna Verhoeff).<sup>11</sup> Moreover, as it will become clear throughout the article, the act of touching is not merely thought of as pointing with the finger but actually ranges from holding in one’s hand to purposely handling, from careful caressing to violently hurting, from clumsily bumping or running into to firmly tearing and breaking through.

## Screen-touching as an (art) historical practice

Today’s touchscreens can be seen as a technological response to the age-old discussion about the hierarchy of the senses: sight is made dependent on touch, but in order to touch the right area of the (flat, button-less) screen sight is even more requisite. The ‘rivalry’ between sight and touch goes back to Antiquity, to the contest between Zeuxis and Parrhasius, described by Pliny the Elder in *Naturalis Historia*, and to the writings of Plato and Aristotle. For Aristotle the sense of touch has a variable status, as it is ranked at the bottom of the scale (after sight, hearing, smell, and taste); also, it is described as ‘a sense that reaches its highest form of development in man’.<sup>12</sup> According to Robert Jütte, this Aristotelian contradiction led to St Thomas Aquinas’ complex theory about the senses ‘in which touch and sight are granted more or less equal rights’.<sup>13</sup>

The discussion about the hierarchy of the senses reached its peak in the 16<sup>th</sup> century with the so-called *paragone* debate, which basically turned into a contest between painting and sculpture – a contest about the noblest art form. The sculptural tactility was a key issue for both parties, brought forward into the discussion either as something fundamentally negative and obscene or as something extremely positive and powerful. As pointed out by art historian Geraldine Johnson, in these art theoretical discussions (which became philosophical discussions in the late 17<sup>th</sup> century with the

debate around the Molyneux problem) tactility is considered in at least three variations: 1<sup>o</sup> cognitive (referring to touch as the primordial sense for gaining empirical knowledge about the world, more reliable than sight), 2<sup>o</sup> socio-sexual (referring to touch in terms of desire and differentiation), 3<sup>o</sup> magical-illusionistic (referring to touch as a life-giving force, as a power to animate the inanimate [see Pygmalion's case], or as divine force in direct connection with the intellect [see Michelangelo's case]).<sup>14</sup>

Going back to *Uncle Josh at the Moving Picture Show*, this early rube film (particularly its last part) illustrates these three variations of tactility in an exemplary fashion. As far as the cognitive variation is concerned, Uncle Josh is a caricature of the naïve and inexperienced film spectator. According to Tom Gunning's thesis of the 'cinema of attractions', early cinemagoers were not stupid but rather modern viewers who participated in the show by being astonished;<sup>15</sup> regardless, they still may have wanted to touch the screen to make sure that what looked so real was indeed an illusion, as they knew it was. In socio-sexual terms, Uncle Josh can be seen as a representative of the lower class, whose act of touching the screen is a sign of a primitive or even obscene attitude; yet and still, his tactile intervention is provoked by another man touching his daughter (thus, gender is also at centre stage). Finally, the magical-illusionistic dimension is the power of Uncle Josh to end the scene – that is, to stop the motion of the picture and make it disappear altogether.

An equally relevant discussion point from the *paragone* debate concerns the involvement of the beholder. This issue is most explicitly addressed by Leonardo da Vinci, who was one of the fiercest advocates of painting as the supreme art form (above both poetry and sculpture). According to Leonardo, a good painting provokes a mimetic impulse in the beholder, an almost compelling need to imitate the scene depicted. In his notebooks on painting he wrote that

[a]n artist painted a picture that whoever saw it at once yawned, and went on doing so as long as he kept his eyes on the picture, which represented a person who also was yawning. Other artists have represented acts of wantonness and lust which kindled these passions in the beholders. Poetry could not do as much.<sup>16</sup>

Because of this power to directly involve the beholder in a (spontaneous) act of imitation, painting is considered superior to the other arts. Applying this line of thinking to his own drawing *Five Grotesque Heads*, Leonardo would have aimed – as Patricia Trutty-Coohill observes – not only to 'show

stages of laughter' but also to 'engender laughter in the beholder'.<sup>17</sup> In other words, a good work of art is infectious!

This is precisely what happens in Porter's film when Uncle Josh is watching the first moving picture of the Parisian dancer – he jumps onstage to dance with her, or rather, to imitate her dancing movements. The film-within-the film might become infectious to the external spectator as well, making him or her want to dance with (or like) Uncle Josh. If we push this reasoning further and also apply it to the third attraction, where Uncle Josh grabs the diegetic film screen and eventually tears it down, we could read it as a direct invitation to touch the screen. While it remains difficult to verify whether Porter's film indeed had the effect of a good work of art upon the historical film spectator, the fact is that its rube character is involved in a spontaneous act of imitation and even manipulation.

Moreover, within the context of cinema's emergence, Uncle Josh's intervention is not so inappropriate. His 'performance' is actually not so far removed from that of (male) Mutoscope viewers who would arrest the reel to have a better look at a 'particularly interesting frame (perhaps a half-naked lady)'.<sup>18</sup> In contrast with Edison's motor-driven Kinetoscope, the Mutoscope was a hand-cranked viewing machine and therefore allowed for some manipulation on the part of the viewer (such as adjusting the presentation speed). This is an interactive dimension that the Mutoscope shares with early-19<sup>th</sup>-century optical toys, such as the thaumatrope (mid-1820s), the phenakistiscope (1832), and the zoetrope (1833). Traditionally, these optical devices are considered to be 'pre-cinematic' because of their application (or illustration) of Joseph Plateau's principle of 'persistence of vision'. Film historians rarely underline the importance of the hands-on practice, which lies at the basis of these (visual) spectacles and which actually points, as I have suggested elsewhere, to another more obvious and straightforward lineage: from optical toys and arcade games, to video games and computer games.<sup>19</sup>

A connection can also be made with the hands-on ethos that characterised early museum culture after the mid-17<sup>th</sup> century. Before the gradual institutionalisation of the museum, touching works of art on display was indeed a quite common phenomenon. As explained by Constance Classen, it was a practice that the early museums inherited from private art collections and which was an almost mandatory aspect of the guided tour, with the curator acting as 'gracious host' and the museum visitors as 'polite guests'. According to this hospitality logic, the museum visitors were supposed to 'show their interest and goodwill by asking questions and by touching the proffered objects'. Classen adds between brackets: '[t]o be invited to peruse

a collection of exotic artefacts or *objets d'art* and *not* touch anything would be like being invited to someone's home for dinner and not touching the food.<sup>20</sup> What is important to note here is that this hands-on practice was not limited to three-dimensional objects but also applied (although in a lesser degree) to paintings. People liked to touch paintings to feel the texture of the canvas and/or the paint, or 'simply to exercise their right of touch'.<sup>21</sup>

By the mid-1840s such a hands-on practice had become taboo as a direct result of the institutionalisation of the museum and the disciplining of the museum visitor. However, as Classen points out, 'as late as 1827 the Ashmolean [Museum of Art and Archaeology at Oxford] regulations allowed visitors to handle artefacts with the curator's permission'.<sup>22</sup> This is the period when the first optical toys, such as the thaumatrope, appear on the market. One could therefore claim that early-19<sup>th</sup>-century optical toys ensured, within the private sphere of home entertainment, a continuation of the hands-on practice that for more than a century invaded the semi-private/semi-public sphere of early museums.

The hands-on practice would again intrude on the public sphere with the advent of the hand-cranked viewing machines at the end of the 19<sup>th</sup> century – precisely when cinema emerges. Here, one should also insist on the role of the projectionist, who manually cranked the film projector. Comparable to early-19<sup>th</sup>-century optical toys and late-19<sup>th</sup>-century viewing machines, early cinema's hand-cranked projectors allowed for some manipulation of the image projected. However, this hands-on practice would soon disappear with cinema's institutionalisation, similar to what happened in museum culture. But much like in museum culture, the transition from hands-on to hands-off does not occur immediately. In fact, it should not be underestimated that by around 1900 the two practices literally coexisted in the realm of the moving image. As Huhtamo reminds us,

[l]ike the penny arcades, many nickelodeons also operated in converted store fronts. Sometimes both were combined, with cinemas opened in the back rooms of the penny arcades (the association between pennies and nickels is not a coincidence). To enter the room, the spectators would have to walk through the penny arcade itself, filled with proto-interactive machines, above all Mutoscopes. The arcade would function as a waiting room (a kind of pre-show) for the cinema experience [...].<sup>23</sup>

Unlike the arcade viewing devices, the cinematographic apparatus is screen-based; moving pictures are projected onto a screen. Does the presence of the screen explain or justify the hands-off practice of the cinema experience?



Let us not forget that there exists a centuries-long lineage of screen-based educational and entertainment forms where the screen is not only the projection surface, but also a physical, tangible element of the auditorium space: from the camera obscura horizontal screen/table to the portable paper screen for the solar microscope's projections, from anamorphic mirrors and panels to the simple cloth screen for magic lantern shows and the elegantly-framed screen for Emile Reynaud's *praxinoscope à projection*. All of these 'pre-cinematic' screens were touchable screens. Although it is very unlikely that Uncle Josh (or his predecessors) ever got in close contact with any of those bourgeois entertainment or educational devices – let alone with *objets d'art* or paintings in an early (semi-private/semi-public) museum – the more 'sophisticated' (urban) film spectator around 1900 might have encountered (and handled) several of them outside of the moving picture show. Apart from the more obvious discipline-through-laughter reading, I am suggesting here the possibility of an underlying reading which is 'nostalgic', as it re-activates a long-standing tradition of touchable screens.

Another important aspect to be underlined is the fact that the early cinema screen is more than just a surface for projection; due to its downstage position and the principle of rear-projection, it is also a (very physical) partition between two worlds. As illustrated by Porter's rube film, the audience is separated from the projection(ist) by means of the screen. The screen is literally in-between. When Uncle Josh tears down the screen, the other world (upstage) is revealed. Thus, Porter's film thematises early cinema's layering which Antonia Lant discusses in her seminal essay 'Haptical Cinema'. According to Lant, the typical flatness of early cinema is a matter of layers; it is a layered flatness that comes into full play thanks to the use of painted and movable décor pieces, transparent curtains, and bas-relief-like superimpositions.<sup>24</sup> Because of these non-perspectival layers, early cinema's spatiality can be said to be more 'haptic' than 'optic', in accordance with the distinction made in the early years of cinema by art historian Aloïs Riegl. Early cinema's spatiality is hence perceived as a surface (as a textured surface) rather than as an illusion of depth. From this perspective, the projection screen functions as one of the many (tangible) layers.

## The historically-multiplying meanings of 'screen'

Although Riegl's art theoretical concepts have proven to be very apt and fruitful for contemporary film theory,<sup>25</sup> I prefer the term 'tactile' (or tangible, touchable) in order to discuss the concrete act of touching the screen.

Riegl's 'haptic' and 'optic' refer to two visual regimes, two modes of visual perception, where the *sensation* of touch is, to a higher or lesser degree, activated *without* physical contact. However, it should not be forgotten that Riegl started his career as a textile curator at the Österreichisches Museum für Kunst und Industrie in Vienna, and therefore became very experienced in the concrete act of touching surfaces – which led to his first book, *Altorientalische Teppiche* (Antique Oriental Carpets, 1891).

From antique oriental carpets to the calico cloths for film projection – this is *not* the screen history I am interested in here. Instead, I want to discuss how the meaning of the word 'screen' changed over time and how several of its earliest connotations can still be found in early cinema. In particular, the film oeuvre of Méliès is a rich source for what I call the 'early touchscreen', which is not necessarily a display screen. As we will see, the 'early touchscreen' includes all forms of touchable surfaces, such as military shields, folding partitions, pictorial and advertising canvases, umbrellas, and fans. All of these surfaces can be traced back to the (albeit uncertain) etymological origins of the word 'screen'.<sup>26</sup>

*a) fire screen, fixed and folded fan*

According to the *Oxford English Dictionary*, the English word 'screen' probably derives from the Old French *escran* in its Old North French variant *escren*. The first documented occurrence of *escran* dates from 1318, in the meaning of a screen against heat ('paravent contre le feu'). The connotation is that of a barrier, of an object that is placed in-between, to protect or to separate. An interesting application of such a screen can be found in Méliès' *L'Homme-orchestre* (One Man Band, 1900), where towards the end an enormous fan creates a barrier, touching and then preventing Méliès from leaving the scene. However, Méliès finds a way to disappear via a stage trapdoor, after which he reappears at the other side of the fan, jumps over it, and literally goes up in smoke. The huge fan is an obstructing screen that can be connected to the original meaning of 'paravent contre le feu' – not only because of the presence of smoke, but also because of its resemblance to the Victorian fan form fire screens, which were usually made in brass.

In *Le Merveilleux éventail vivant* (The Wonderful Living Fan, 1904), Méliès stages another huge fan. Unlike the screen of *L'Homme-orchestre*, the Magical Fan has individual display panels. Reminiscent of the fan form fire screen in its adjustable variant (that can be closed when not in use), the Magical Fan is brought onto stage in a huge box. While being unboxed, the fan opens 'magically' in front of the royal representative who visits the fan merchant/magician. The latter, played by Méliès, emphatically touches

some of the panels before producing living women. This act of touching is once again a good illustration of the three variants of tactility, as identified by Johnson in the Renaissance *paragone* debate. Cognitively, the magician's touch before the execution of the magic trick is to prove to the audience that what they see is indeed just a fan. Magically, this touch is linked to the power to animate the inanimate, to turn the individual display panels into living women. This also connects to the gender issue: the result is women on display and within reach for the male characters (and, indirectly, male viewers).

This not-so-portable and not-so-woman-friendly device is in striking contrast with the oriental hand-screen, which was a typical fashion accessory for Victorian ladies. Inherited from Japanese culture, the folding fan permitted one to partially hide from sight in addition to circulating air. As pointed out by Giuliana Bruno in *Atlas of Emotion*, the fan also had a more imaginary function, allowing women to travel to remote places thanks to the vistas depicted on the panels. Bruno calls it the 'ladies' own private cinema' (before the invention of cinema, that is) that they could literally hold in their hands.<sup>27</sup>

It is interesting to note that the fire screen also existed in a portable version to shield the face from the heat of a fireplace. Littré's *Dictionnaire de la Langue Française* of 1889 lists such a device after the traditional fire screen and, remarkably, uses the word 'éventail' (fan) in its description: '[s]orte d'éventail qu'on tient à la main pour le même objet' – thus, having the same purpose as the traditional fire screen (namely, to protect oneself from the heat of the fire).<sup>28</sup> These hand-held face screens were not unfolding or adjustable; they came as a fixed screen with a fixed handle. Those models go back to the furthest Chinese origins of the fan as a fixed fan (to be distinguished from the Japanese folding fan that appeared much later, around the 6<sup>th</sup> to 8<sup>th</sup> centuries).

What is relevant in media historical terms is the resemblance of the fixed fan with the phenakistiscope – more particularly, with Plateau's single-disk version that requires the user to take a position in front of a mirror. This very simple device (a disk on a stick with a series of cut-out slits and a series of drawings arrayed around its centre) needs to be held by one hand and rotated by the other. To properly see the animated view reflected in the mirror one must partially hide one's face behind the screen-disk and look through its cut-out slits. In other words, the phenakistiscope also functions as a concealing barrier, like the fan.<sup>29</sup>

*b) gate and cabinet*

According to the *Larousse Dictionnaire étymologique*, the French word 'écran' derives at its turn from the Middle High German *schränk*, meaning 'gate, railing', or from the Frankisch *skrank*, meaning 'barrier'. This track brings us to the modern German *Schränk* and allows making a connection between the screen and the closet, more specifically the baroque *Wunderschränk*, or cabinet of (visible and touchable) curiosities. Barbara Stafford and Frances Terpak have made a similar connection in their book *Devices of Wonder: From the World in a Box to Images on a Screen*. However, the 'screen' in their subtitle refers not so much to the film screen but rather to the new media screen on which we (manually) organise the cosmos.

Regarding the *Wunderschränk*, Stafford points to the synaesthetic operation at work: '[p]utting distant things in contact with one another in order to make connections obliges the collector's five senses to converge in a kind of synesthesia.'<sup>30</sup> She emphasises the fact that the collector becomes a performer, since the collection depends on the manipulation/activation by the collector: '[t]he *Wunderschränk* belongs [...] to a whole gamut of hollow furnishings awaiting the incorporation of far-fetched contents and relying on the user for activation.'<sup>31</sup> Furthermore, Terpak discusses how the *Wunderschränk* principle is recycled in the mid-1800s in political cartoons by the Viennese caricaturist Cajetan; for instance, in his *Grosses noch nie gesehenes Kunst-Cabinet* (Large never-before-seen Kunstkabinett), which satirises the political chaos of the 1850s by means of a 'circus barker dressed as a seventeenth-century musketeer [who] points to posters of the curiosities on display in his sideshow'.<sup>32</sup>

A very analogous poster-cabinet can be found in Méliès' *Les Affiches en gouquette* (The Hilarious Posters, 1906). Here, the individually-framed posters come to life, turning the 2D publicity board into a 3D cabinet with living curiosities (ranging from a cook and a liquor seller to several coquettes).<sup>33</sup> The film also connects back to the original Middle High German meaning of *schränk* – that is, 'gate, railing' – when, towards the end, the (again 2D) billboard falls down and through the gendarmes to reveal a metal gateway, blocking the police from the poster characters in a much more efficient way.

*c) military shield*

In addition to the German *Schränk*, the *Larousse Dictionnaire étymologique* indicates another possible root for the French *écran*: the Dutch *scherm*, or the Middle Dutch *screm*. The Dutch word 'scherm' probably derives at its turn – and here we are really going in circles – from the Old German *skirm*, meaning a 'shield made of [animal] skin'. Van Dale's Dutch dictionary adds

the Latin and Greek roots (*corium* and *korion*, both meaning ‘skin’) and dates the first occurrence of the word in the first half of the 15<sup>th</sup> century. A trace of the Old German *skirm* is still visible in the English expression *skirmish* (which in Dutch is *schermutseling*). Thus, the screen is a shield that not only protects from the heat of a fireplace (or from various weather conditions) but also acts as a means of defence against the enemy. This is good example of how the military pervades – not only technologically but also etymologically – on many different levels of our media history.

As opposed to the many cardboard flats and paper screens that populate Méliès’ films and that are more often than not torn open, the military shield is obviously supposed to be impenetrable. This is bluntly thematised by Méliès in *Le Royaume des fées* (Fairyland: A Kingdom of Fairies, 1903), where Prince Bel Azor is gifted with an impenetrable armour (‘bouclier impénétrable’) by the Genius of Invulnerability. This magical shield makes the Prince’s entire body invulnerable. Made of silver-like material, it reflects (and keeps off) like a mirror. Right after receiving the shield and while holding it in his left hand, the Prince briefly pats its shiny surface as if it needed some encouragement for the battle to come.

#### d) skin and skirt

The etymological link between skin and screen brings the human body into the picture. Relating to early cinema (particularly to Méliès’ oeuvre), the function of the female body as screen needs to be looked at more closely. Not only are female bodies put on display (as discussed above in the case of *Le Merveilleux éventail vivant*), they are also treated as concrete barriers in the execution of magic (and filmic) tricks. For instance, in *L’illusionniste double et la tête vivante* (The Triple Conjuror and the Living Head, 1900) a duplicated Méliès entertains himself by crawling underneath a small table on which a living female head is placed; her body is an invisible, traversable barrier, an illusionary black screen against the black backdrop. Then Méliès makes the table disappear and she appears full body, first squatting and then upright. At her two flanks, the two Méliès try to kiss her on the cheek. The Méliès at her right side then moves along her (clearly superimposed) body with his two hands without really touching her, after which she vanishes, fading away and becoming one with the black backdrop.

Inherited from the stage (and his own experience as conjurer at Théâtre Robert-Houdin), the vanishing lady is a recurring motif in Méliès’ films, in which the magic trick is often replaced (or complemented) by film tricks (such as superimposition, stop motion, etc.). The earliest example is *Escamotage d’une dame chez Robert-Houdin* (The Vanishing Lady, 1896), where

magician Méliès guides his female assistant (played by Jeanne d'Alcy) to a chair placed on top of a newspaper. Jeanne holds a nice feather fan and is covered by a tablecloth. When Méliès removes the cloth, Jeanne's body has disappeared (while the paper screen on the ground has remained intact). Méliès then conjures a skeleton and covers it with the cloth to reproduce Jeanne again.

Another remarkable play with different types of screens and the female body can be found in *Le Parapluie fantastique* (Ten Ladies in One Umbrella, 1903). The film starts with Méliès playing around with his magic hat, which he transforms into a ball and then into a piece of black cloth. Together with his walking stick the cloth takes the form of an umbrella. Instead of offering protection against rain this umbrella is indeed nothing more (or nothing less) than a magic hat, out of which Méliès draws 10 ladies one by one. The first two are wrapped in white sheets and placed downstage onto two small tables like living statues; the next four are placed further to the back on platforms on trestles. Before producing the seventh woman on the little podium of a fair booth upstage, the umbrella disperses a 'rain' of white paper scraps under which the lady in question fades in. The last three ladies are conjured up on centre stage. Against the background of the fair booth that has two posters on either side, the 10 female bodies resemble (living, yet still) billboards.

The female body is thus constantly covered and uncovered by Méliès by means of screens, cloths, curtains, and so on, to eventually be turned into a screen itself – that is, a screen *for* and *on* display. American Mutoscope and Biograph made this idea of body as screen even more explicit in *Kiss Me* (1904), where Rose Sydell appears framed as a (living) billboard among three other life-sized vaudeville posters on the street. Instead of stepping out of the frame (as happened in an earlier film by American Mutoscope and Biograph, *A Midnight Fantasy* [1899]), the woman seems immobilised; she only very slightly moves her head to wink at a male passerby. The whiteness of her nude shoulders contrasts with her black dress and the black background of the poster, thereby annulling any sense of depth. Like in many of Méliès' films, the female body is treated here as a flat image, as a statue reduced to a 2D screen for visual pleasure.

At the turn of the century the female body also literally became a projection screen within the context of the emergence of modern dance. By putting both the shimmering quality of silk and the technology of electricity to her advantage, American dancer Loïe Fuller turned her costumes into (moving) surfaces for the interception of multi-coloured light beams. Her famous Serpentine Dance was imitated/plagiarised all over the world, and

also in front of the early cinema camera, most famously by Annabelle Moore for the Edison Company. In Méliès' *La Danse du Feu* (The Pillar of Fire, 1899), Jeanne d'Alcy appears from within the fire and performs a skirt dance à la Fuller. As in other filmic recordings, the multi-coloured projection effect is obtained by hand-tinting. Thus, paradoxically, whereas on stage Fuller's silk costumes clearly belong to the episteme of the projection screen, on film they become canvases to be painted or dyed. In both cases the skin of the dancer is sometimes covered (or coloured) as well, creating a direct continuity between the two screens – that is, the naked skin and the so-called second skin or clothing.

e) *wall(paper)*

To take this one step further, I pick up a German wordplay from Bruno, who writes in a passage about habitation and architectural sheltering that 'the German *wand*, which connotes both wall and screen, is connected to *gewand*, meaning garment or clothing'.<sup>34</sup> I would like to add that the wall as a dividing screen between two rooms or as the back of a film studio can be clothed as well – that is, covered by other more or less touchable screens (see for instance the previously-described stage set of *Le Parapluie fantastique* with the fair booth and its two side posters).

What is telling is Bruno's own discussion of the panoramic wallpaper that became fashionable in the late 18<sup>th</sup> century. She calls this element of home design not only a 'pre-filmic screen', but also 'the "in-between" of interior and exterior'.<sup>35</sup> As she writes, '[p]anoramic wallpaper reframed the inside as an outside'.<sup>36</sup> And, I would like to add, it brought the remote, the inaccessible, or the exotic in close proximity with the inhabitant – literally within the reach of her hands. The painted flats and fake walls that are so typical of early cinema somehow recall this domestic tradition, although their direct lineage is theatrical. Generally these flats and fake walls are very noticeable due to their visible instability. Often they are being touched unintentionally by actors/characters in the film. Yet in *Le Cauchemar* (The Nightmare, 1896) it becomes a deliberate act. When the main character (played by Méliès) wakes up from his nightmare, he wants to be sure he is indeed awake, and therefore he touches the wall in the back as a reality check. This cognitive touch ironically shows how unstable the 'real' world is, since the touched wall/screen is visibly swaying.

The wall as architectural divider between inside and outside can also function as a very basic screen for projection, as exploited by early cinema in many dream scenes (see for instance Porter's *Life of an American Fireman* [1903] and *Dream of a Rarebit Fiend* [1906]). Here the wall is naked, uncov-



ered. It is a screen-less screen. With Athanasius Kircher's 'invention' of the *Laterna Magica* as described and illustrated in the Amsterdam edition of *Ars Magna Lucis et umbrae* (1671), the bare wall proved indeed to be sufficient as a surface for projecting images.<sup>37</sup> Likewise, in *La Lanterne magique* (The Magic Lantern, 1903), Méliès projects directly (or primitively) onto the wall. However, the result of Méliès' primitive projection is technologically (or rather magically) advanced: his magic lantern not only operates without slides, it also produces *moving* images which somehow seem to be 'live' or 'candid' (as if filmed by a hidden camera). Together with the two characters Polichinelle and Pierrot, we first 'spy' on a couple dressed in Louis XV-style who are kissing one another, then on a couple of eccentrics making funny faces and, eventually, on Polichinelle and Pierrot themselves. What is important for my argument is the fact that this screen-less screen, this bare wall, remains untouched. It is true that Pierrot approaches the wall once the projection has stopped and the images have vanished, but this is only to check where they have gone (and not to touch them).

*f) from board to sieve, from curtain to sheet*

Despite Méliès (and Kircher), it is in connection with the magic lantern that the first uses of the French word *écran* in the meaning of a projection board ('tableau sur lequel on projette une image') were probably made. According to the *Larousse Dictionnaire étymologique*, the first documented occurrence with this specific meaning is dated 1820. However, Littré's *Dictionnaire de la Langue Française* suggests a slightly different usage of the screen that would not necessarily involve the projection of lantern slides but rather more simply (and more directly) the casting of shadows: '[t]ableau blanc sur lequel on fait tomber l'image d'un objet.' Whereas it seems to evoke the tradition of the *ombres chinoises*, Littré attributes this definition of the word *écran* to physics.

Jean Giraud in *Le Lexique français du cinéma. Des origines à 1930* also refers to the language of the physicist, which he mentions next to the 'montreur' and the 'illusionniste' – as if those *métiers* were indeed interchangeable at the time because of their specific use of the screen as a projection board (and no longer as a barrier, according to its original meaning). Giraud then gives the place and date of the first official usage of *écran* as cinematographic screen, which, not surprisingly, coincides with the birth of cinema: Grand Café, December 1895.<sup>38</sup> In fact, the Lumière 'programme-prospectus' for the first public screening of the Cinématographe at the Salon Indien of the Grand Café in Paris gives the following explanation:



[c]et appareil, inventé par MM. Auguste et Louis Lumière, permet de recueillir, par des séries d'épreuves instantanées, tous les mouvements qui, pendant un temps donné, se sont succédé devant l'objectif, et de reproduire ensuite ces mouvements en projetant en grandeur naturelle, devant une salle entière, leurs images sur un *écran*.<sup>39</sup>

According to Stephen Heath (who partially quotes these lines of the Lumière prospectus in English translation in an early psychoanalytical essay on 'Screen Images'), the term 'screen' is 'fixed from the start, with neither challenge nor fluctuation'.<sup>40</sup> However, when consulting Webster's *American Dictionary of the English Language* of 1900, the cinematographic usage of the word is not even mentioned. The first meaning of the English 'screen' in the early days of cinema was still that of protective shield. Another (new) connotation was that of filter or sieve, which was linked to the coal industry. Going to the screenings in 1900 meant going to a coal factory to pick up bits of coal that were screened out by the sieves.<sup>41</sup>

As pointed out by William Paul, two other terms competed with the term 'screen' in early writings on cinema published in the United States: 'curtain' and 'sheet'. Whereas the first is a clear reference to the theatrical curtain and was often used in connection with moving picture shows at vaudeville theatres (like in Porter's rube film), the latter evokes the whiteness of the screen awaiting for images to intercept and to display. In the more fancy venues, the screen would be demarcated by a gilded frame, which allows for a direct comparison with the painter's canvas.

Once again, through the motif of a touchable screen, Méliès provides us with a wonderful illustration of cinema's affinity with both theatre and painting. In *Ali Barbouyou et Ali Bouf à l'huile* (Delirium in a Studio, 1907) he plays with the historical continuity between living pictures and moving pictures – that is, between 3D theatrical re-enactments (or re-stagings) of well-known paintings and 2D paintings in motion. The plot is as follows:

[a]n artist [Ali Barbouyou] drinks from a bottle while putting the finishing touches to a painting of a slave girl. His servant [Ali Bouf] steals a drink from the bottle but then drinks from a bottle of oil by mistake. Both fall asleep. The servant dreams that the painting comes to life and pours a paint bucket over his head instead of giving him the kiss he desires. She then returns to inanimateness in the tableau. The servant wakes and attacks the painting with a broom. The artist awakes, cuts off his servant's head and puts the body in the chest. The body re-emerges from the chest with the head in its hands.<sup>42</sup>

What is not mentioned here is the fact that the artist, after waking up and getting rid of his servant, touches the painting to ensure that the canvas is still intact. Or, is he rather caressing the painted girl? In other words, the painter's canvas is a screen that is literally touched, first violently by Ali Bouf with the aid of a broom and then very tenderly by Ali Barbouyou. Moreover, the canvas acts like a border between hallucination and reality, like an *interface* that prevents the animation of the painted girl (who comes to life only when there is no screen within the frame). At the same time, it also allows Ali Barbouyou (played by Méliès) to vanish at the end of the film by jumping into the frame without tearing (and thus, without touching?) the screen. This is one of the very few examples where Méliès does not reappear on stage after such a 'screen exit'.<sup>43</sup>

## To conclude

In comparison with Porter's Uncle Josh, Méliès' oriental painter clearly belongs to a 'higher' category. By touching his own artwork, as a direct descendant of Pygmalion, he brings us back to the *paragone* question and the contest between painting and sculpture. The tradition of the living pictures (or *tableaux vivants*) is in itself a perfect continuation of the Renaissance debate, by turning paintings into (living) sculptures and by making the canvas (or the screen, for that matter) needless. Nevertheless, in *Ali Barbouyou et Ali Bouf à l'huile* the canvas disappears only momentarily; it reappears within the frame to act like a barrier between two realities. Likewise, in the meta-filmic rube films, the screen creates a *dispositif* of separation between downstage and upstage, between audience and projector.

The same counts for the etymologically-identifiable/identified screens in the work of Méliès: instead of being 'surfaces that stop light' (which is the logic of cinema as art of projection),<sup>44</sup> they are all very material screens that serve as a protective shield – or, more generally, as a concrete border between two worlds. The screen-less wall in *La Lanterne magique* is the exception that confirms the rule. Here the screen/wall functions as a surface for projection without creating a physical division between two parts of the stage. Like in the (institutionalised) movie theatre there is front projection, which means that the spectators (Polichinelle and Pierrot) are not separated from the projector (the magic lantern) by means of the projection surface; and as I stressed above, this surface remains untouched.

After all, it is not so surprising that contemporary film spectators do not feel the urge to touch the film screen, since it does not provide a physical

or concrete barrier; in today's movie theatres, the screen is not a screen in the etymological sense of the word. It is therefore also problematic to compare the little girl of the opening anecdote with the rubes of 1900. To understand her attitude, the screen's tension (or duality) between projection surface and physical border does not suffice. An explanation should rather be found in the quality of the 3D images, in *their* hapticity (and not in the hapticity of the screen).

I have avoided a discussion of stereoscopy on purpose, because this would have shifted the attention away from the screen towards much broader and complex issues such as the quality of projection, light, style, special effects (depth vs. relief), etc.<sup>45</sup> Regarding early cinema's various images (or usages) of the screen, I would tentatively conclude that, because of their being in-between two spaces, they are closer to today's 'post-cinematic' notion of *interface* than they are to the cinematic notion of *surface*. However, this does not automatically turn the 'early touchscreen' into a distant predecessor of contemporary touchscreens. On the contrary, the 'early touchscreen' rather belongs to a long 'pre-cinematic' tradition of protective and/or dividing shields, which goes back to its uncertain and multiple etymological roots.

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## Notes

1. See Malte Hagener's wall on Facebook, 6 March 2012. The anecdote's account is also partially based on my email correspondence with Hagener in reaction to his Facebook post.
2. Hansen 1991, p. 25.
3. Edison 1902, pp. 81-82.

4. According to William Paul, this downstage position of the screen was typical for American vaudeville theatres, 'to present moving pictures as a vaudeville act and possibly conceal preparations for the next act' (Paul 2005, p. 573).
5. See for instance Morrissette 2002 or Casetti 2008, p. 149.
6. See Strauven 2005, 2005 b, 2011. See also Elsaesser 2002, 2006.
7. This is a fantasy that still haunts the Surrealists in the 1920s. See for instance Robert Desnos' account of his visit to the Marivaux movie theatre in 1925, quoted and discussed in Casetti 2008, p. 156.
8. See in particular Aumont 1989.
9. Huhtamo 1996, p. 300.
10. Foucault 1971.
11. Verhoeff 2012, p. 24.
12. Jütte 2008, p. 5.
13. Ibid.
14. Johnson 2002.
15. Gunning 1989.
16. Leonardo 1949, p. 66.
17. Trutty-Coolin 1998, p. 185.
18. Huhtamo 2005, p. 9.
19. Strauven 2011. See also Dulac & Gaudreault 2006.
20. Classen 2005, p. 275.
21. Ibid., p. 279.
22. Classen 2007, p. 899.
23. Huhtamo 2005, p. 13.
24. Lant 1995.
25. See in particular Marks 2000 and Barker 2009.
26. This etymological quest is directly inspired by the course Media Archaeology that I co-taught for years with Thomas Elsaesser at the University of Amsterdam. See also Elsaesser & Hagener 2010, p. 38 for a shorter and slightly different version of screen's 'etymological-archaeological overview'.
27. Bruno 2002, p. 134.
28. Littré 1889, p. 1293.
29. Bruno also mentions the phenakistiscope in her discussion of ladies' fans, but does not stress the difference between (Chinese-style) fixed fan and (Japanese-style) folding fan.
30. Stafford & Terpak 2001, p. 6.
31. Ibid., p. 7.
32. Ibid., p. 156.
33. Even though the resemblance with the curiosity cabinet is striking, another (interfilmic) influence might be more likely. According to *Essai de reconstitution du catalogue français de la Star-Film* (1981, p. 249), the direct source of inspiration would have been Pathé's *La Valise de Barnum* (Barnum's Trunk, 1904). Another possible filmic intertext is *A Midnight Fantasy* (1899), where a girl on a large billboard comes to life for a passerby on the street (see also below in this article).
34. Bruno 2002, p. 322.
35. Ibid., p. 169.
36. Ibid., p. 166.
37. The German Jesuit uses the Latin word 'paries' to indicate the wall of a room on which he projects coloured images. Kircher 1671, p. 769.
38. Giraud 1958, p. 108.

39. Quoted in Caradec & Masson 1975, p. 149 (emphasis added).
40. Heath 1977, p. 31. Heath quotes the Lumière programme-prospectus as follows: 'the apparatus permits the subsequent reproduction of the movements by projecting their images, life size, on a screen in front of a whole audience'.
41. Webster 1900, p. 992.
42. BFI National Film Archive catalogue: <http://ftvdb.bfi.org.uk/sift/title/84092?view=synopsis>.
43. According to *Essai de reconstitution du catalogue français de la Star-Film* (1981, p. 288), three other films by Méliès present such a 'disturbing' ending.
44. For the definition of the screen as a 'surface that stops light' (as opposed to the screen as an 'interface on which information is inscribed'), see Bourriaud 1995, p. 487.
45. For a discussion of all these various aspects, see Wedel 2009.

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