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Lotte Reiniger and the Art of Animation

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Silhouettes are always already artforms. They are absolute images. Béla Balázs¹

Everybody knows what a shadow is. Lotte Reiniger²

Lotte Reiniger (1899-1981) is today considered one of the most innovative pioneers of animation history. Her originality and creativity have shaped and modernised the 'other' kinetic art form of the 1920s, which-compared to live-action film-has up to now received very little attention. Related to comic books, which are by many considered a lamentable form of junk art, animation film today is dominated by computer-generated cartoons and often criticised for its political and sexual simplicity, its aesthetic crudeness and violent energy. In the 1920s, however, the status of animation film was entirely different. It was then, that numerous young, ambitious artists applied their innovative talents and huge amounts of creative energy to experiment with animated sequences in film. After three years of cutting and animating silhouettes and taking over 250,000 frame-by-frame stills³, Lotte Reiniger's Die Abenteuer des Prinzen Achmed (The Adventures of Prince Achmed) premiered in Berlin in 1926 and became not only the first German feature-length animation film, but one of the very first full-length animated films in the history of cinema. This film exemplifies not only Reiniger's considerable contribution to the development of stop-motion film in the 1920s, but illustrates the significance of the moving picture for modern art and idiosyncratically captures the spirit of modernity.

From the beginning of film history, when illusionistic techniques and technical tricks fascinated variety audiences, animated film sequences were deemed attractive commodities. Around the turn of the century, animators such as Arthur Melbourne Cooper in England, Ségundo de Chomon in Spain, or J. Stuart Blackton in the USA used motion picture photography to produce stop-motion films of animated objects or ornate drawings.⁴ Among the best-known pioneers of film animation is Georges Méliès (1861-1938), who experimented with special effects such as split-screen shots, dissolve and double exposure in Paris already before the turn of the century.⁵ Paris remained the hotbed of experimental animation until World War I when artists such as Emile Cohl (1857-1938), Léopold Sturzwage (later Survage; 1879-1968) and Viking Eggeling (1880-1925) explored the idea of

visually combining abstract and non-abstract form with movement. The Russian painter Léopold Survage began toying with the idea of non-representational animation in 1911 after exhibiting his abstract paintings in the Salon d'Autonome. By 1912, he had painted over 200 entirely abstract watercolours in order to apply newly developed techniques of film animation and create abstract art in motion⁶. The poet and art critic Guillaume Apollinaire (1880-1918) considered Survage's idea as the "thing of the future [which] has to come if our art is to have any relation to this rhythmic moving cinematographic age of ours."7 But despite his enthusiasm, no one was found to animate Survage's "Coloured Rhythm" designs. The Swedish artist Viking Eggeling (1880-1925) came to Paris during the same period and must have been aware of Survage's efforts as Amedeo Modigliani and Tristan Tzara were among their mutual friends. After a period of Dadaist collaboration in Zurich during World War I, Eggeling moved to Berlin in 1918 where he worked with Hans Richter and later Erna Niemeyer on experimental animation, exploring the representation of movement in scroll drawings and on film. The German capital became the new centre for experimental animation and remained a breeding ground for new young animators throughout the 1920's:

Oskar Fischinger⁸ used animation in his advertising work and conducted animation experiments with wax and abstract form from 1921. He was also responsible for the special effects in Fritz Lang's *Die Frau im Mond* (Woman in the Moon, 1928/29; based on Thea von Harbou's science fiction novel). Eggeling's *Diagonal-Symphonie*, in which abstract paper cut-outs and tin foil figures were photographed a frame at a time and visually orchestrated in rhythmic movements and counter-movements, premiered in Berlin in November of 1924.⁹ Eggeling's friend and associate Hans Richter (1888-1976), who had also been a member of the Dada group in Zurich, aimed to visualise an "orchestration of movement and time"¹⁰ through animation. His films *Rhythmus 21* (Rhythm 21, 1921), *Rhythmus 23* (1923) and *Rhythmus 25* (1925) are rigorously puristic silent films that again intended to turn abstract form into visual 'music'. All *Rhythmus* films explore the possibility of conveying the 'time' element, which forms the core of musical composition, in visual art via the movement of images.

Time' as a signifier for modern times occupied another artist who only a few years later became the first filmmaker in Germany to produce a feature-length documentary: Walter Ruttmann (1887-1941), the acclaimed director of *Berlin: Die Sinfonie der Großstadt (Berlin: Symphony of a City*, 1927). Since the early 1910s, Ruttmann had been working on the idea of creating art that was in some way penetrated by the rapid passing of time—for time, i.e. tempo, had in his view become the essence of life in the modern metropolis. In order to represent the artist's core experience of modernity, making allusions or finding analogies does not suffice, he writes in his manifesto "Malerei mit Zeit" (Painting with Time, probably 1919/20). To him, contemporary art seemed helpless in its efforts to capture the spirit of modernity. Nothing less than time itself must permeate any successful representation of modernity, for modernity itself is determined, structured, and signified fundamentally by time: by the speed of modern life

exemplified by trains and cars, telecommunication, stenography or motion picture photography. In his desire for more effective representative strategies, Ruttmann calls for nothing less than a completely new art form ("eine ganz neue Kunst"¹¹). It is not a new style that he is looking for, but a new way of expressing art using film technology. By way of the film apparatus and celluloid, the new material that can be permeated by light and allows for projection, modernity can take form in art. Ruttmann writes:

For almost ten years I have been convinced of the necessity for this new art. But it is only now that I have mastered the technical difficulties, which had resisted its development. But today I know that this new art will be and live—because it is a well-rooted plant rather than a construction.¹²

His first film *Lichtspiel Opus 1* (Light-Play Opus 1) premiered in Berlin in 1921, which was hailed a symphony of colour and rhythm and features abstract forms in constant transformation.¹³ The animation was meticulously painted and coloured directly onto celluloid and accompanied by an original score. Rather than transposing existing music into visual imagery—as in Hans Richter's and from 1924 Oskar Fischinger's films—Ruttmann focuses on visual art first and then uses music to highlight the movement of form. The film was celebrated as a new art by critics such as Bernhard Diebold.¹⁴

Lotte Reiniger was well aware of Walter Ruttmann's talents and asked him to collaborate with her on her *Prinz Achmed* project in 1923, mainly to create backgrounds and special effects. Although much of Ruttmann's work for Reiniger's silhouette film is quite similar to the animation of abstract form in his *Opus* films, his background designs for *Prinz Achmed* provide the silhouettes with an illusion of three-dimensional presence. Therefore, Ruttmann's transformations of abstract forms enhance the realism of this particular visual representation. Of course, the phenomenological impression of visual reality of Reiniger's silhouettes in shadow theatre combined with Ruttmann's talent for creating three-dimensional space through the movement of abstract forms, as well as the invention of the multiplane camera and frame compositions that emphasise the effect of linear perspective, all add to a simulation of three-dimensional space.¹⁵

Lotte Reiniger

The Women's Filmmakers Encyclopaedia states that as an independent filmmaker, "Lotte Reiniger's career [...] is among the longest and most singular in film history, spanning some 60 years (1919-1979) of actively creating silhouette animation films."¹⁶ Born in 1899 in Berlin-Charlottenburg, Charlotte Reiniger was captivated by the Chinese art of silhouette puppetry from early childhood, and created her first shadow theatre at the age of six. As a teenager, films by Georges Méliès and Paul Wegener (especially his *Golem* film of 1914) had a profound effect on Reiniger who was deeply fascinated by the use of animation and special effects. In 1915, after having attended a lecture by Paul Wegener on the possible use of animation in cinema, Reiniger persuaded her parents to enrol her in the Max Reinhardt School

of Acting, specifically in the acting group that Wegener belonged to. Before long she was using her expertise in cutting silhouettes to design ornate title and dialogue cards for Wegener's films (*Riibezahls Hochzeit*/Rübezahl's Wedding, 1916, and *Der Rattenfänger von Hameln*/The Pied Piper of Hameln, 1918). When Paul Wegener was in the process of filming *Der Rattenfänger von Hameln* problems arose with the use of rats. Due to their quite unruly nature Wegener's efforts to include live rats and then guinea pigs failed and Lotte Reiniger suggested animating wooden rats instead. The success of her work led to an admission into the *Institut für Kulturforschung* (Institute for Cultural Research) in Berlin, where she worked on experimental animation. It was there that she met the art historian (and her future husband) Carl Koch (1892-1963) and another future collaborator on the Achmed-project: Berthold Bartosch (1893-1968).

From 1916 onwards, Lotte Reiniger had cooperated with Rochus Gliese, first on the live-action silhouette film¹⁷ Die schöne Prinzessin von China (The Beautiful Princess of China, 1916), which Gliese directed. Reininger was responsible not only for the special effects, but also for the set and costume design. In Rochus Gliese's live-action short Apokalypse (Apocalypse, 1918), Lotte Reiniger created silhouettes to epitomise the unimaginable horrors of World War I. From the beginning of her career as an animator, her acknowledgement of the significance of animation was based on her conviction regarding the representational potential of animated sequences. In her view, it was due to animation that representational restrictions in cinema could be surpassed.¹⁸ Consequently, her first animated short film was Das Ornament des verliebten Herzens (The Ornament of the Heart in Love), which she directed in 1919. In this short film about two lovers, an ornament gains central function as a reflection or representation of their emotions. Subsequently the young filmmaker made five more shorts¹⁹ as well as some advertising films for the Julius Pinschewer agency-such as Das Geheimnis der Marquise (The Marquise's Secret, 1920) illustrating the benefits of Nivea skin cream.

Some of the most prolific filmmakers of the time commissioned Lotte Reiniger to produce animated sequences for their feature films: Rochus Gliese (Der verlorene Schatten/The Lost Shadow, 1920 and Die Jagd nach dem Glück/The Pursuit of Happiness, 1929; co-directed by Reiniger), Fritz Lang (Die Nibelungen, 1924), Friedrich Zelnik (Heut' tanzt Mariette/Today Marietta Dances, 1927), G. W. Pabst (Don Quichote, 1933), and Jean Renoir (Mme Bovarie, 1933; La Marseillaise, 1937). Between 1923 and 1925, however, Lotte Reiniger worked almost exclusively on her first feature film project: Die Abenteuer des Prinzen Achmed. After its completion she cooperated with Bertolt Brecht and Elisabeth Hauptmann on a script for a silhouette film based on the most successful play of the Weimar Republic: Die Dreigroschenoper (The Threepenny Opera, 1928) by Brecht, Hauptmann and Kurt Weill, but the film was never made. Instead, Reiniger released a number of short films such as Der scheintote Chinese20 (The Chinaman Who Seemed Dead, 1928) and a feature based on Hugh Lofting's Dr Doolittle books. The score for Doktor Doolittle und seine Tiere (Dr Doolittle and His Animals) was composed by some of the most innovative musicians of the 1920s, namely Paul Dessau, Kurt Weill, and Paul

Hindemith, and conducted by Dessau at the Berlin premiere in December 1928. With the beginning of sound film in Germany, Lotte Reiniger began increasingly to explore the interplay between music and image and created silhouettes that were inspired by but also gave emphasis to musical tunes. During the final years of the Weimar Republic, she produced the shorts *Zehn Minuten Mozart* (Ten Minutes of Mozart, 1930), *Harlekin* (Harlequin, 1931; to baroque music), *Sissi* (1932; a ten minute silhouette animation meant as an *entr'acte* for Fritz Kreisler's operetta *Sissi*), and a burlesque of *Carmen* (1933, based on Bizet's opera). The latter opens with an astonishing silhouette of Carmen dressed in beguiling lace, who leans seductively on a balustrade and enjoys a smoke, and concludes with Carmen taming a bull and winning the bullfighter.

In 1933, Lotte Reiniger and Carl Koch left Germany²¹ for France where Jean Renoir employed Koch as co-author and Lotte Reiniger as animator. They spent most of the Hitler years in England, France and from 1943 in Italy, finding refuge at Lucino Visconti's home. Worried about Lotte Reiniger's mother, they returned to a crumbling Berlin in 1944, leaving Germany again in 1949 to work with England's top theatre puppeteers Jan Bussell and his wife Ann Hogarth. From 1951 Lotte Reiniger lived and worked in "The Abbey Arts Centre", the artist colony near London where she stayed for most of the remainder of her life. She died in Dettenhausen in Germany in 1981, having created over 40 silhouette films. Reiniger was not only an animator, she created plots and characters, drew the storyboards, cut and built silhouettes, and-already in 1923-designed a multiplane camera. Her design of the multiplane or Tricktisch, as she called it, revolutionised two-dimensional animation. Two or even three layers of glass rather than one under a horizontally mounted camera allowed the animators to create foregrounds, middle grounds and backgrounds, thereby adding a previously unknown depth and complexity, i.e. three-dimensionality to animation (fig. 3, p. 184).

Her husband, Carl Koch, worked with her on all projects—from *Achmed* in 1923 to his death in 1963—serving as producer and camera operator. The French filmmaker Jean Renoir, with whom Koch had collaborated on *Grand Illusion*, *Rules of the Game*, and *La Marseillaise*, wrote in his autobiography: "There was nothing about what is called film-technique that he did not know."²²

Prinz Achmed

When Lotte Reiniger was only 24 years old, in 1923, she undertook a huge production: a feature-length silhouette film based on the *Arabian Nights: Die Abenteuer des Prinzen Achmed.* The film took three years to complete and was financially made possible by then banker Louis Hagen, "who installed Miss Reiniger and her team in a studio over his garage in Potsdam."²³

For this very large project Lotte Reiniger had a staff of five: Carl Koch was behind the camera and served as production manager, Alexander Kardan and Walter Türck were responsible for the décor and the exposure sheets, Walter Türck also arranged backgrounds, and the experimental animators Walter Ruttmann

worked on special-effects, assisted by Berthold Bartosch, who composed the waves for the storm which Aladin encounters after fleeing the Caliph's wrath. To give the spectators an idea of the amount of work required for a project of this scale, Lotte Reiniger wrote the introduction to a promotional brochure published in 1926 by the production company Comenius Film:

Countless extras had to be cut and animated, as sometimes up to fifty figures act in one scene. To illustrate the extent of this work: for a clip that passes the viewer's eye in two seconds, 52 frames have to be recorded one by one.²⁴

Moreover, the silhouettes had to be quite flexible in their movements and were built from sometimes up to fifty different pieces, held together by thin lead wire. If a close-up of a character was needed, another, larger silhouette of head and shoulders had to be constructed.

The completed film, which was submitted to the Censorship Board on 15th January 1926, combines silhouette figures in the tradition of the *ombre chinoises* with abstract animation. Both elements are integrated into a narrative structure based on a pastiche of themes from *Arabian Nights*. The film was even coloured and an original musical score was composed by Wolfgang Zeller²⁵ (1893-1967), but nonetheless no distributor was interested in promoting *Die Abenteuer des Prinzen Achmed*. Eventually, Bert Brecht helped to organise a privately sponsored press screening, which took place at the Volksbühne in Berlin on 2nd May 1926. This inofficial premiere of the film before an audience of 2,000, which included Fritz Lang, was a huge success. The critic Frank Warschauer wrote:

At a time when German film is struggling, Lotte Reiniger presents her great shadow feature of several acts. At a time, when it has become doubtful that traditional ways alone will accomplish something, Lotte Reiniger is breaking new ground. An attempt? An exploration and an experiment? More than that: the consistent execution of revolutionary ideas. (...) This film is visual poetry, a miracle to be experienced, as exciting as it is artful.²⁶

Karl With agrees and calls the film "an achievement which in its distinctive and formally autonomous visual language not only convinces artistically but also presents the realm of film with a rare logical solution. Indeed, I don't hesitate to claim that this film breaks new ground and encapsulates a modern form of expression that is significant for both art and popular culture."²⁷ And another critic went as far as calling it the "biggest success a film ever had on a German stage."²⁸ The film's critical acclaim eventually generated interest among film distributors. A French distributor was found first and in July of the same year, *Prinz Achmed* was screened in Louis Jouvet's Comédie des Champs Elysées. Due to the enormous success of the film among Parisian audiences, distribution in German was secured and the film premiered at the Gloria Palace in Berlin on 3rd September 1926. Reiniger's animation was hailed as a "triumph of art and technology."²⁹



Figure 1. Lotte Reiniger working on a silhouette of Prince Achmed riding the magic horse.

In her film Lotte Reiniger adopts the role of the oriental storyteller³⁰ but at the same time the narrative is subject to a purely technical interest. In order to illustrate the true potential of animation, the action had to show events that could not be performed by any other means. Therefore, Lotte Reiniger selected all objects, characters and actions which fell into that category: the flying horse, magic islands, fantastic birds, sorcerers and witches and all kinds of transformations; she then created a narrative structure involving the caliph, his daughter Dinarsade, his son Prince Achmed, the beautiful bird woman Paribanu, Aladdin (or Aladin as Reiniger calls him), an African sorcerer and a witch to hold the fantastic events together. Reiniger was very much aware of her intervention and invention, when she chose motifs and characters to create an entirely different Arabian tale. In her 1926 introduction to the film, she wrote:

For centuries, Prince Achmed had been leading a comfortable life as a fairy tale figure in the book *Arabian Nights*; he was happy, loved and content. One day, a silhouette maker who wanted to use him for a film tore him from this peaceful existence. For this purpose, he needed to be reborn, just like many of his colleagues from other literary areas. This change had to take place in a much more drastic manner than is normally required for manipulations of this kind. It was not enough to write a part for him that fit him like a glove and entrust an actor of similar stature to play it. He had to be physically invented, drawn, cut, wired, lit, moved and shot frame by frame.³¹

When Lotte Reiniger decided to base her project on the tales of *Tausendundeine* Nacht, her film became part of a long history of adaptations: The core of the

Arabian Nights stories came out of India, China, and Persia in the eighth century and was translated into Arabic around 850 AD. During the ninth or tenth century, several Arab stories and a number of other tales were added. In the 13th century, stories of Egyptian or Syrian origin were incorporated into the main body of the text. And this was only the beginning. The first European translator of the tales was the French statesman Antoine Galland (1646-1715)³², who based his translation on a 3-volume manuscript acquired from Syria and dating from the 14th or 15th century. Galland's translations of the Arabian Nights were published from 1704³³ to 1717, and included several stories (among them Aladdin, Ali Baba, The Ebony Horse, Prince Ahmed and the Fairy Pari Banou, Prince Ahmed and his Two Sisters), that have never been found in any of the Arab manuscripts predating Galland.³⁴ In addition to this expansion of the original tales, Galland's text was sanitised as overtly sexual or exotic passages were toned down to ensure the enjoyment of his intended readership,³⁵ and references to French culture were inserted in order to make the stories more appealing to the public.

As soon as the Antoine Galland's 12 volume edition of *Mille et une nuits, contes* arabes traduits en français was published from 1704, its influence on German literature took root. As Wolfgang Köhler points out in his book on *Hugo von Hofmannsthal und Tausendundeine Nacht*', some motifs prevalent in Oriental tales had already made their way into European consciousness and literature as a result of the 11th and 12th century crusades.³⁶ However, Galland's translation of the Arabic text into French made a wealth of new fairy tales accessible. Between 1710 and the end of the 19th century, ten different translations of the *Arabian Nights*, all based on Galland's translation³⁷ were published in German, among them by August Bohse in 1712 and by Johann Heinrich Voß in 1781-85. An array of German authors were enchanted and influenced by the *Arabian Nights* and published poetry and prose based on the Oriental fairy tales: Christoph Martin Wieland, E.T.A. Hoffmann, Wilhelm Hauff, Heinrich Heine and Stefan George to name but a few.³⁸ Johann Wolfgang von Goethe sought Scheherezade's advice throughout his career³⁹ and Jean Paul called *Arabian Nights* the Romantic poet's favourite book.⁴⁰

The Expressionist poet Else Lasker-Schüler (1869-1945) published a volume of poems and novellas entitled *Die Nächte Tino von Bagdads*⁴¹ (The Nights of Tino of Baghdad) in 1906 and *Der Prinz von Theben* (The Prince of Thebes) in 1914, a book of 'tales' with illustrations by Franz Marc. In 1923, when Lotte Reiniger began working on her *Prinz Achmed* film, Else Lasker-Schüler published *Theben*, a book of poems illustrated with 'Oriental' lithographs by the author. In 1920 Hans Bethge published a volume of poetry inspired by the tales of 1001 Nights entitled *Arabische Nächte* (Arabian Nights), and in addition, new German editions of *1001 Arabian Nights* were published regularly. Very popular was a small, one volume version published by Kiepenheuer in 1914, and it seems likely that Lotte Reiniger first encountered the Oriental tales in this edition.

The third story of the 1914 Kiepenheuer edition—"Die Geschichte von dem Zauberpferde" (The Story of the Magic Horse)—is at the core of Reiniger's narrative prompting the action to follow. In this story, the king of Persia, Sabur, is

presented with three gifts by three wise men from Greece, India, and Persia. The Persian's gift is a wooden horse, with bridle and stirrups, and an exquisite saddle made from gold and precious stones. The king is surprised and asks what is the meaning of this artful but lifeless animal? "My king," responds the wise man, "the outward appearance is not the reason for this gift. It bears a wonderful secret, for it can fly the distance of a year in a day and it will fly wherever you wish to go."42 Upon release of the secret magic, the king in fervent anticipation offers to fulfil any wish the wise man might have. Without hesitation, he agrees to hand his three daughters' hands in marriage to the three wise men. This news meets with less enthusiasm when overheard by the three princesses, especially the youngest who was utterly shocked by the looks of her future husband for he was "a wrinkled 100year old with hair like bristle but no eyebrows or beard. His eyes were red and runny, his cheeks hollow and as yellow as leather, his cheekbones were pointy and his nose looked like a cucumber; his teeth were mostly missing, his lips were blue and reminded her of camel's kidneys, and his hands were shaking incessantly. All in all, he was the ugliest of all human kind and looked so much like the devil that the birds in the sky fled at his sight."43 When her brother Prince Kamr al Akmar discovers the youngest sister distraught in her room with ripped clothes and ashes on her head, he sets out to punish the sorcerer for his impertinent demand. However, the sorcerer tricks the son of the King of Persia, and has the magic horse take him to a strange land. There, Kamr al Akmar walks straight into the women's quarters of the palace of the greatest and most powerful king of the earth, where he is greeted joyfully by the young princess Schems ulnahar, who believes him to be her fiancée (whom she has not yet met).

When Kamr al Akmar is about to leave his new lover, Schems ulnahar persuades the prince to take her with him. When they reach his father's palace, she is kidnapped by the sorcerer who flies off to China with her in order to take revenge on the prince. There, they encounter the Chinese king's hunting party, and the princess asks for his help. The King of China doesn't think twice, imprisons the sorcerer, takes his horse and the princess home. When he reveals his intention of making her his wife, she fakes madness. Kamr in the meantime travels through the Orient searching for his love. When he reaches China, he hears stories about the beautiful stranger that has fallen ill in the King's palace. Dressed as a wise man, he manages to free the princess and they return to Persia where they marry and live happily ever after. No more mention is made of the sister, who had been the cause of Kamr's adventures. In this tale, Allah is deemed ultimately responsible for each character's fate, and thanks for his supposed intervention is given on every page.

In her film, Lotte Reiniger secularises the events and translates the story into Western images of oriental beauty, featuring both magical and demonic figures, and drawing on other related characters to tell her own potpourri of an Oriental tale. The tale is structured by events relating to the evil power of the African sorcerer who had fallen in love with Dinarsade, the beautiful daughter of the Caliph of Baghdad, and created a magic horse with which to win her hand in marriage. The role of Kamr al Akmar is given to Prince Achmed who flies off with the magic

horse unintentionally when he confronts the sorcerer about his wish to marry his sister Dinarsade. In the film, Achmed lands in Wak Wak, a strange land ruled by demons, after finally having figured out how the horse works. There he voyeuristically observes the beautiful Pari Banu bathe, the woman who lives on the magic island and wears a bird costume with which she can fly. He tries to persuade her to return with him to Baghdad, but she runs until passing out, whereupon Achmed carries her to the magic horse and takes off. They fly to China, where they fall in love. But all too soon the sorcerer kidnaps Pari Banu and throws Achmed into a deep gorge with a huge snake. Pari Banu is sold as a slave to the Chinese Emperor and supposed to marry a dwarf with a hump when she refuses to marry the Emperor. The evil sorcerer takes Achmed to the magic mountain for a slow and painful death. But a witch who hates the sorcerer saves Achmed and promises to help rescue Pari Banu. During their journey, they rescue Aladin, who in the meantime had conveniently fallen in love with Achmed's sister Dinarsade. To impress his new love, he used his magic lamp to build a huge palace for her, which had now suddenly disappeared with Dinarsade trapped inside, leaving Aladin no choice but to flee the wrath of the Caliph. Achmed is delighted to engage a brother (in-law) in arms, and with the help of the witch, they rescue both Pari Banu and Dinarsade. The witch kills the sorcerer, and the two couples return to an overjoyed Caliph in Badhdad.



Figure 2. The evil sorcerer and the kind witch in Lotte Reiniger's Die Abenteuer des Prinzen Achmed.

The climax of the film is the fight between the evil sorcerer and Achmed and Aladin. The scary yet kind witch comes to their rescue, takes on the evil sorcerer (fig. 2) and all his demons and saves the day. In Lotte Reiniger's account of the narrative, she begins the story with the statement: "Gargantuan was the power of the African sorcerer."⁴⁴ It is the evil sorcerer's power and eventual defeat that structure Reiniger's narrative. The magic horse, however, functions as its leitmotif. It comes as no surprise that this enchanted mare would play such a central role in Reiniger's tale for the magic and power of the horse is its fantastic speed. This

speed frightens Achmed only the beginning, and he soon begins to enjoy its opportunity and takes advantage of its potential. Hidden in an ancient tale is the artists' dedication to modernity.

The sorcerer, however, provides the filmmakers with more than just a magic horse. He has complete control over his surroundings and can manipulate and shape them as he pleases. This is the animators' chance to use abstract experimental animation that both Reiniger and Ruttmann had been working on during the previous years. When Walter Ruttmann's abstract shapes become the magic horse, the story can unfold. The use of animation not only influenced the choice of storyline, but also made numerous transformations possible and others necessary. The silhouette animation technique used is responsible for some of the changes in the figures depicted. For example, in Arabian Nights, the sorcerer is described as having no eyebrows and no beard, but as the shape of the figure determines its characterisation, Reiniger decided to give the scrawny figure not only hair like bristle and a nose like a cucumber, but also big, hairy eyebrows and a thin, withered beard. Due to these main features of the face the audience is not only able to imagine, what the creature may look like, but already understands the principal qualities of his character. Other elements, like the horse, whose is magic is triggered in the book by moving a little twirl of its mane on both sides of its neck, is replaced with clearly visible parts: the shift of the crown placed on the horse's head moves it upwards, the pull on its tail moves it down again.

As in every good fantasy, this is a story of good versus evil, beauty versus ugliness. The fairy tale explores existential human experiences and the figures function as representatives of basic human characteristics: love and hate, life and death, generosity and greed, peace and war, truth and deceit.⁴⁵ But the idea of an inevitable, merciless fate as it is present in *Arabian Nights* is replaced here by the idea of agency, especially that of the community or family unit and the female witch. Reiniger secularises her story not only by omitting repeated thanks to Allah, but by depicting fate as wo/man-made (or possibly demon driven) but not as part of Allah's plan as the literary source might suggest. The 'Orient' here provides a magical springboard of opportunities for a new artform to prove its potential.

In the introduction to his celebrated book *Orientalism*, Edward Said defined 'the Orient' as "almost a European invention", a zone that since antiquity had been "a place of romance, exotic beings, haunting memories and landscapes, remarkable experiences (...) and one of its deepest and most recurring images of the Other."⁴⁶ Considering the German fascination with the *Arabian Nights*, Said's assessment of the 'Orient' as an invention, a recreation as exotic Other, is entirely convincing. Lotte Reiniger's film recreates the Orient as a place of strange, romantic adventure, a place that is magical and has a different logic. However, the 'Oriental'—albeit seen as exotic—does not necessarily appear as the opposite, as someone of a different logic and of an entirely different *Weltbild*. Evil here becomes the 'Other', the opposite, as in every proper fairy tale. Regarded within the context of 19th century Orientalism, Lotte Reiniger's cinematic adaptation of *Arabian Nights* engages with "The Orient' not as a system of representations framed by political

forces that brought the Orient into Western learning and indeed Western empire, as Edward Said put it. In this film, the Orient exists for the West because a Western woman creates oriental images in order to enchant a Western audience, but Reiniger's representation of the Orient is only marginally constructed in relation to the West. The Orient here is the 'Other' in the sense that it is unreal and magical—it remains a fairy tale, just like its literary source. Lotte Reiniger looked for magic and for the boundaries of cinematic representation in order to transgress them. For her, the 'Orientals' Prince Achmed and Aladin are not at all depicted as feminine, weak, yet strangely dangerous as Orientalism's stereotype would have it, but rather true heroes who can ride flying horses, fight all sorts of demons, don't fear the help of witches and ultimately save the day.

Oriental motifs time and again served as perfect vehicles for escapism in the history of film, and especially Hollywood cinema cashed in on the audience's desire for exotic settings and mysterious heroes when filming The Thief of Bagdad in 1924 (dir. Raoul Walsh, with Douglas Fairbanks), followed by the Technicolour remake of the popular classic in 1940: The Thief of Bagdad (dir. Ludwig Berger and Michael Powell, Caligari's somnambulist Conrad Veidt starring as Wesir Jaffar). Thanks to colour and a very effective use of visual tricks the film was a box office hit which caused a deluge of Arabian Nights inspired films, including Arabian Nights (John Rawlins, 1942), Ali Baba and the Forty Thieves (Arthur Lubin, 1944), Sindbad the Sailor (Richard Wallace, 1947) and The Seventh Voyage of Sindbad (Nathan Juran, 1958), not to forget Disney's hugely successful animations, from Popeye the Sailor meets Sindbad the Sailor (1936) to Aladdin (John Musker/Ron Clements, 1992). A Prince of Persia computer game, which was released in 1990 and transferred the classical hero theme into an Arabian fairy tale setting, became one of the most successful games ever produced. In Germany, the fascination with Oriental fairytales led to film productions on both sides of the wall, such as Wolfgang Staudte's Die Geschichte vom kleinen Muck (GDR, 1953) and Byron Haskin's Sindbad (FRG, 1963; starring Heidi Brühl).

Lotte Reiniger was a pioneer of silhouette animation and its finest practitioner. In her films, and especially in *Die Abenteuer des Prinzen Achmed*, complex paper cut-outs come to life through spectacular mise-en-scène. Due to her creativity and expertise, animation film became a recognized art form in Germany already in the 1920s. In her *Prinz Achmed* animation, she turns an ancient tale into a fragile, moving art. The *Tricktisch* (fig. 3) which Lotte Reiniger invented and developed in 1923 was nothing else that a multiplane camera that enabled her and her team to create unprecedented three-dimensionality in animation. She describes her work that combined Ruttmann's abstract animation with her silhouettes on a multiplane construction as follows:

While I moved him [the Prince Achmed silhouette; author's note] on his horse slowly across the glass plate, the painter Ruttmann had to frighten him on a second plate with painted lightening. He had to invent smoke and flames with reflected light. Magical processes/events of the most complicated nature had to be figured out and recorded with the utmost patience. At the same time and despite all the difficulties, Prince Achmed insisted greedily on being present

personally and lit properly. Bertolt Bartosch had to construct a sea storm from artfully cut transparent paper. $^{47}\,$

However, it was not Lotte Reininger in 1923 but Walt Disney in 1940 who received the patent for the multiplane camera: "The multiplane camera is a special motion picture camera used in the traditional animation process that moves a number of pieces of artwork past the camera at various speeds and at various distances from one another. This creates a three-dimensional effect."48 Disney's animator/director Ub Iwerks is credited with inventing the camera in 1933, but Walt Disney applied for the patent. According to the United States Patent and Trademark Office, Walter E. Disney applied to patent the "Art of Animation" on September 1, 1936. The patent "Art of Animation" was granted on May 21st, 1940, patent number 2, 201, 689. The drawing supplied with the patent application shows a "Tricktisch," an animation table, with the camera mounted horizontally above the table. The figures attached to the patent application illustrate the "form of apparatus in which the method of the invention may be carried out". The stated aim was on the one hand, to provide the production with "greater fidelity and ease" and on the other, to create animation that suggests three-dimensional space. While it is not possible for copyright reasons to give an image of the drawings supplied with the application, the description of the "Tricktisch" is as follows:

A table (...) **1** is provided with an aperture **2** in which there may be mounted a transparent glass plate **3**. Movably positioned beneath this table and visible though the aperture **2** is a stage **4** (...). The stage may consist of two members **5** and **6** which are hinged together and which may be adjustably positioned with respect to one another by means of a quadrant attached to the member **5** and adjustably attachable to the member **6**.

The main difference between Lotte Reiniger's invention of 1924 and this animation table of 1936 is the fact that in the case of the latter the lower pane is not flat but rather like a box that made the illusion of threedimensionality much easier to achieve. Reiniger used glass panes one above the other on which forgrounds and backgrounds, silhouette figures and atmospheric storms were placed in order to achieve visual depth. Therefore, her idea of mounting the camera horizontally above a table of two glass panes was replaced by Disney with a table that replaced the lower one with a curved, stagelike background. Or as the patent application states: "the method of this invention comprises forming a three dimensional model of the desired background" and "projecting the image of the foreground character upon such three dimensional background." Walt Disney laid claim to the 'Art of Animation' and the impact of his claim is felt when accessing the Inventor's Hall of Fame: "Today, Mickey Mouse and many other Disney characters are recognized and revered by millions around the world."49 This statement illustrates the importance of the invention of the multiplane camera and presents Disney as a synonym for animation and imagination. The Inventor's Hall of Fame celebrates Disney as "intrinsically linked (...) with the concept of imagination. His was the catalyst for his incredible body of work, which in turn fed the imagination of millions who have been inspired by it. Disney's invention of the multiplane camera

brought better looking, richer animation and in 1937, *Snow White and the Seven Dwarfs* was the first full-length animated film to use the camera."⁵⁰ While this statement rings true for North America, it ignores the important contribution made by European pioneers of animation in general and Lotte Reiniger in particular. Without their creativity, Mickey Mouse might have never made it to global cinema screens.

But rather than engaging in a patent suit or attempting to claim the 'Art of Animation' for herself, Lotte Reiniger published her book *Shadow Theatres and Shadow Films* in 1970, in which she gives detailed descriptions, illustrations and photographs⁵¹ of her "trick-table" with step-by-step instructions as to how to build one at home. Quite clearly, animation for her never became a commodity, but rather an art that would never lose its magic.



Figure 3. Lotte Reiniger's *Tricktisch*: Lotte Reiniger (arranging silhouettes), Walter Ruttmann (creating backgrounds) and Carl Koch (at ladder leading to camera).



Figure 4. Lotte Reiniger 'at work'.

Illustrations and Credits

Figure 1: Lotte Reiniger cutting one of the silhouettes depicting Prince Achmed on the magic horse. ©Courtesy of Filmmuseum Berlin – Stiftung Deutsche Kinemathek.

Figure 2: Scene from Lotte Reiniger's *Die Abenteuer des Prinzen Achmed.* ©Courtesy of Filmmuseum Berlin – Stiftung Deutsche Kinemathek.

Figure 3: Lotte Reiniger, Walter Ruttmann and Carl Koch working on *Die Abenteuer des Prinzen Achmed.* ©Courtesy of Filmmuseum Berlin – Stiftung Deutsche Kinemathek.

Figure 4: Arranging silhouettes: "Lotte Reininger (bei der Arbeit)". ©Courtesy of Filmmuseum Berlin – Stiftung Deutsche Kinemathek

Notes

¹ "(...) Silhouetten sind von vornherein Kunstformen. Es sind absolute Bilder." Béla Balázs, Der Geist des Films, Halle, 1930, p. 122; quoted in Werner Dütsch (ed.), Lotte Reiniger, Berlin, Deutsche Kinemathek, 1969, p. 4. Unless otherwise noted, all translations are my own.

² Lotte Reiniger, Shadow Theatres and Shadow Films, London, Batsford, 1970, p. 11.

³ According to Lotte Reiniger, 100,000 of those 250,000 stills were eventually used for the final film. See the promotional brochure produced by Comenius Film for *Die Abenteuer des Prinzen Achmed*, which introduces the film under the title *Die Geschichte des Prinzen Achmed* (The Story of Prince Achmed). Stiftung Deutsche Kinemathek/Schriftgutarchiv. The fact that films are shot frame by frame is the only uniting aspect within the very incongruent realm of animation.

⁴ For an introduction to the history of animation, see: Robert Russett and Cecile Starr, *Experimental Animation: An Illustrated Anthology*, New York, Van Nostrand Reinhold, 1976; Charles Solomon, *The History of Animation*, New York, Random House, 1994; Giannalberto Bendazzi, *Cartoons: One Hundred Years of Cinema Animation*, Bloomington, Indiana UP, 1995; and Jayne Pilling (ed.), *A Reader in Animation Studies*, Sydney, John Libbey & Co., 1997.

⁵ See for example Méliès experimenting with double exposure in *La Caverne maudite* (1898), probably the first split-screen shot in *Un Homme de tête* (1898) and a dissolve in *Cendrillon* (1899).

⁶ In 1914, Survage wrote: "I will animate my painting. I will give it movement. I will introduce rhythm into the concrete action of my abstract painting, born of my interior life; my instrument will be the cinematographic film, this true symbol of accumulated movement. It will execute the 'scores' of my visions, corresponding to my state of mind in its successive phases. I am creating a new visual art in time, that of colored rhythm and rhythmic color." Text of a sealed document, No. 8182, deposited on June 29, 1914, at the Academy of Sciences of Paris, as quoted by Robert Russett and Cecile Starr, *Experimental Animation*, p. 36.

⁷ Quoted in Russett and Starr, Experimental Animation, p. 33.

⁸ See William Moritz, *Optical Poetry: The Life and Work of Oskar Fischinger*, Bloomington, Indiana University Press, 2004. Fischinger's wife Elfriede (a fashion designer) contributed significantly to the preservation of animation history; see William Moritz, "In Passing...Elfriede Fischinger." *Animation World Magazine*, 1 May 1999; can be accessed at: http://mag.awn.com/index.php Pltype= search&sval=William+Moritz&article_no=1647.

⁹ The November premiere of Diagonal-Symphonie was a private sceening by the November Group. The film was shown publicly for the first time on May 3, 1925. Eggeling died sixteen days later of blood poisoning.

¹⁰ Richter in a letter to Alfred Barr (16 November, 1942), quoted in Russett and Starr, p. 49.

¹¹ Ruttmann's "Painting with Time" manifesto can be found at:

http://www.medienkunstnetz.de/source-text/19/. Also published as "Malerei mit Zeit" in Birgit Hein and Wulf Herzogenrath (eds.), *Film als Film: 1910 bis beute*, Stuttgart, Katalog des Kölnischen Kunstvereins, 1977, pp. 63–64; and in Jeanpaul Goergen, ed., *Walter Ruttmann. Eine Dokumentation*, Berlin, Freunde der deutschen Kinemathek, 1989, pp. 73–74. The title of Ruttmann's manifesto appears in English as "Painting with Light"; see http://www.medienkunstnetz.de/works/opus1/.

¹² Walter Ruttmann, "Malen mit Zeit": "Seit fast zehn Jahren bin ich von der Notwendigkeit dieser Kunst überzeugt. Erst jetzt bin ich der technischen Schwierigkeiten Herr geworden, die sich der Ausführung entgegenstellten, und heute weiß ich, daß die neue Kunst sein und leben

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¹⁷ In this live-action silhouette film, actors are only seen as shadows on screen. Probably the bestknown live action silhouette film appeared in Walt Disney's *Fantasia* of 1940. The live action silhouette of conductor Leopold Stokowski is combined with animated footage of Mickey Mouse.

¹⁸ See Lotte Reiniger, Shadow Theatres, p. 11-14.

¹⁹ Amor und das standhafte Liebespaar (Cupid and the Steadfast Lovers, 1920), Der fliegende Koffer (The Flying Suitcase, 1921), Der Stern von Bethlehem (The Star of Bethlehem, 1921), Aschenputtel (Cinderella, 1922), Dornröschen (1922). Der fliegende Koffer is the story of an Asian emperor who forbids his daughter to marry, banning her to a pagoda on the highest mountain. Yen had fallen in love with the princess at first sight and throws himself into the ocean in despair. But a water creature shows him a flying suitcase, which brings Yen to the imprisoned princess. They decide to marry, the emperor agrees for Yen pretends to be the God of butterflies. At the height of his happiness, the butterflies take revenge for his betrayal. Mesmerised, Yen sees his beating heart, takes out his knife and kills himself. The Princess is unconsolable and the Emperor passes a new law: as long as the Princess is alive, no one is allowed to marry. Note that this short was released the year of Reiniger's marriage to Carl Koch.

²⁰ This short is based on an episode in *Prinz Achmed*, which had been cut by the German censor in order to make the film suitable for children.

²¹ Lotte Reininger underlined her disdain with the Hitler regime in an interview: "weil mir diese Hitler-Veranstaltung nicht passte und weil ich sehr viele jüdische Freunde hatte, die ich nun nicht mehr Freunde nennen durfte" (because I didn't approve of the whole Hitler-spectacle and the fact that I had many Jewish friends that I now wasn't supposed to call friends anymore). Quoted in Christel and Hans Strobel, *Lotte Reininger: Materialien zu ibren Märchen und Musikfilmen*, p. 8. Reiniger's *Carmen* had been criticised sharply by the newly appointed *Reichsfilmdramaturg* Peter Hagen alias Willi Krause for being "unrealistic, (...) romantic (...) and as useless as caviar"

wird-denn sie ist wurzelfestes Gewächs und nicht Konstruktion." http://www.medienkunstnetz.de/source-text/19/.

¹³ Opus II, III and IV were screened at the London Film Society on Oct 25, 1925. "The following day, *The London Times* described them as 'Absolute Films—a series of moving patterns which produce the liveliest response in the spectator." See *Experimental Animation*, p. 40. Opus I can be viewed at the Media Art Net Website: http://www.medienkunstnetz.de/werke/opus1/video /1/.

¹⁴ The Swiss critic Bernhard Diebold reviewed Ruttmann's films on April 2, 1921 in the *Frankfurter Zeitung* after *Opus I* had premiered in Frankfurt. See *Experimental Animation*, p. 33. Ruttmann, however, presented his work first.

¹⁵ See Jayne Pilling on three-dimensionality in animation: Jayne Pilling, "Introduction", A Reader in Animation Studies, p. 9.

¹⁶ See Amy Unterburger (ed.), *The St. James Women Filmmakers Encyclopedia*, Farmington Hills: Visible Ink Press, 1999, p. 348. See also Cecile Starr's chapter on "Lotte Reiniger" in Russett and Starr, *Experimental Animation*, pp. 75-82. The late William Moritz has contributed greatly to Lotte Reiniger research in English. See especially his essay on "Lotte Reiniger" in *Animation World Magazine* at http://www.awn.com/mag/issue1.3/articles/moritz1.3.html. Useful are also the following brochures and exhibition catalogues: Werner Dütsch (ed.), *Lotte Reiniger*, Berlin, Deutsche Kinemathek, 1969; Margit Downar (ed. et al.), *Lotte Reiniger—Silhouettenfilm und Schattentheater* (Puppentheatermuseum), Munich, Lipp, 1979; Wilfried Setzler (ed.), *Lotte Reiniger*, *Schauspieler-Silhouetten, Mozart Opern, Andersen-Märchen*, Tübingen, Kulturamt der Stadt Tübingen, 1982; Annemarie Tomei (ed.), *Silhouettenfilme von Lotte Reiniger bei der Landesmedienstelle in Hannover*, Hannover, Landesmedienstelle, 1988; Christel and Hans Strobel (text), Dagmar Lehmann (ed.), *Lotte Reiniger*, Duisburg, atlas film + av, 1988; Carola Ferbier, ed. et al. *Lotte Reiniger: Filme/Films*, Munich, Goethe Institut, 1999.

("unrealistisch (...), romantisch, (...) nutzlos wie Kaviar"). See *Annette Wagner* "Als die Schatten laufen lernten: Die Silhouettenfilmkünstlerin Lotte Reiniger," *Freitag*, 4 June 1999, http://www.freitag.de/1999/23/99231702.htm.

²² Quoted in Unterburger, p.348.

²³ See Russett and Starr, Experimental Animation, p. 75.

²⁴ "Zahllose Komparsen mußten geschnitten und bewegt werden, manchmal sind es fünfzig Figürchen, die gleichzeitig in einer Szene zu spielen haben. Um einen Begriff von der Langwierigkeit dieser Arbeit zu geben: für einen Bildstreifen, der vor den Augen des Beschauers in zwei Sekunden vorüberrollt, sind 52 Einzelaufnahmen nötig." Lotte Reiniger, "Die Geschichte meines Prinzen Achmed", in *Lotte Reinigers Silbouettenfilm: Die Geschichte des Prinzen Achmed*, promotional brochure, Comenius Film, 1926. Stiftung Deutsche Kinemathek, Berlin – Schriftgutarchiv.

²⁵ Friedrich Zeller was a prolific composer whose score for Reiniger's *Prinz Achmed* was only the first of many compositions for cinema from the Weimar years, throughout the period of Nazi Cinema, Post-war film and eventually television. Among his works are the musical score for Veit Harlan's anti-Semitic propaganda film *Jud Süß* (1940), but also for Kurt Maetzig's *Ehe im Schatten* (Marriage in the Shadows, 1947), Eugen York's Morituri (1947), and Arthur Pohl's anti-war drama *Die Brücke* (The Bridge, 1949). In 1966 he played Schilling in Hansjürgen Pohland's *Katz und Maus* (based on the novel by Günter Grass). Zeller died in Berlin in 1967.

²⁶ "In einem Augenblick, wo der deutsche Film mit mancherlei Schwierigkeiten zu kämpfen hat, erscheint Lotte Reiniger mit ihrem großen vielaktigen Schatten-Spielfilm. In einem Augenblick, wo es zweifelhaft ist, ob die alten Wege allein zu einem Ziel führen, werden neue betreten. Ein Versuch? Ein Tasten und Experimentieren? Mehr als das: die konsequente Durchführung umwälzender Ideen. Gestaltung des Filmes von einer anderen Seite, als es bisher geschah.

(...) Dies ist geschaute Poesie, erlebbares Wunder, so spannend und erregend wie kunstvoll." Promotional brochure, Comenius Film, 1926, p. 3.

²⁷ "Eine Leistung, die in ihrer eigenartigen und formal selbständigen Bildsprache nicht nur künstlerisch überzeugt, sondern auch im Sinne des Filmes eine selten folgerichtige Lösung bedeutet." Karl With, "Blick in die Zukunft", *Lotte Reinigers Silbonettenfilm: Die Geschichte des Prinzen Achmed*, Comenius Film promotional leaflet, n.p. (p. 5), Stiftung Deutsche Kinemathek Berlin – Schriftgutarchiv.

²⁸ See review in *Vorwärts*, no. 418, 5 September 1926 (by "D."). Quoted in Deutsche Kinemathek, *Lotte Reiniger: Eine Dokumentation*, pp. 54-55.

²⁹ "Es ist ein Triumph der Kunst und der Technik. Mit bewundernswertem Fleiß ist hier ein vorbildliches Werk der Filmgeschichte geschaffen worden." *Vorwärts*, 9 May 1926, quoted in Christel und Hans Strobel, *Lotte Reiniger*, p. 11.

³⁰ As did for example Hugo von Hofmannsthal in his "Das Märchen der 672. Nacht": Katharina Mommsen believes that Hofmannsthal used the German edition of Arabian Nights ed. by Maximilian Habicht, Friedrich von der Hagen und Carl Schall (Leipzig, 1926?), but Wolfgang Köhler disputes that claim while agreeing that Hofmannsthal had been inspired by the fairy tales. See Wolfgang Köhler, *Hugo von Hofmannsthal und Tausendundeine Nacht': Untersuchungen zur Rezeption des Orients im epischen und essayistischem Werk*, Frankfurt/M., Lang, 1972; see page 70ff.

³¹ Lotte Reiniger, *Die Abenteuer des Prinzen Achmed*, Tübingen, Wasmuth, 1970, p. vii. "Seit Jahrhunderten hatte der Prinz Achmed als Märchenfigur in dem Buche Tausend und eine Nacht ein behagliches Dasein geführt und war glücklich, geliebt und zufrieden. Aus diesem Frieden wurde er eines Tages aufgeschreckt als eine Filmgesellschaft auf die Idee kam, seine und viele weitere Abenteuer aus derselben Quelle zu einem Trickfilm zu verwenden. Zu diesem Zweck musste er, wie viele seiner unglücklichen Kollegen aus anderen literarischen Gebieten, 'umgeboren' werden. Und zwar noch gründlicher als dies sonst bei anderen Verfilmungen üblich ist, wo man Darsteller zu finden sucht, die einigermassen dem Charakter, um den es in der

³² Galland was also the co-author of the first Encyclopedia of Islam (1697).

³⁶ Herzog Ernst used Oriental motifs in his writings around 1210. See Wolfgang Köhler, *Hugo von Hofmannsthal und 'Tausendundeine Nacht'*, p. 10.

³⁷ The definitive English translation—by Richard Burton—wasn't published until 1885: *The Book of the Thousand Nights and a Night.*

³⁸ See for example Wieland's "Wintermärchen" (1776), Hoffmann's *Serapionsbrüder* (1819) and Hauff's fairy tales "Die Karawane" and "Geisterschiff" (1826).

³⁹ Katharina Mommsen, see Köhler, Hugo von Hofmannsthal und 'Tausendundeine Nacht', p. 24ff.

⁴⁰ See Köhler, Hugo von Hofmannsthal und 'Tausendundeine Nacht', p. 35.

⁴¹ The book was published by Cassirer in 1907 and republished in 1919 under the feminised title *Die Nächte der Tino von Bagdad.*

⁴⁴ "Gewaltig war die Macht des afrikanischen Zauberers." Lotte Reiniger, "Die Abenteuer des Prinzen Achmed: Erzählung des Filminhalts", *Die Abenteuer des Prinzen Achmed*, Tübingen, Wasmuth, 1970, p. vii.

⁴⁵ See Andreas Friedrich, "Einführung. Ein Plädoyer für die Fantasie", *Filmgenres: Fantasy- und Märchenfilm*, Stuttgart, Reclam, 2003, p. 9.

⁴⁶ Edward Said, Orientalism, New York, Vintage, 1979, p. 1.

Geschichte geht, entsprechen und sie mit der Rolle betraut. Denn es sollte ein Silhouettenfilm werden, weil der Hersteller, der von dieser Idee besessen war, nämlich ich, nichts anderes konnte als Silhouettenfilme machen. (...) Prinz Achmed selber musste zunächst körperlich erfunden, gezeichnet, geschnitten, beweglich gemacht [gedrahtet], beleuchtet, bewegt und aufgenommen werden."

 ³³ The Voyages of Sindbad, probably never part of the Arabic *Nights*, were translated first by Galland in 1701. See http://www.arabiannightsbooks.com/background.php (accessed 16/08/04)
³⁴ John Crocker believes that Galland received these tales in 1709 from a friend in Aleppo. See John Crocker's extensive website http://www.crock11.freeserve.co.uk/detail.html.

³⁵ Ibid.

⁴² "Mein König, es ist nicht das äußere Ansehen, warum ich dir dieses Pferd zum Geschenk bringe. Es birgt ein wunderbares Geheimnis; denn es legt mit seinem Reiter in einem Tage eine Strecke von einem Jahre zurück; es fliegt durch die Luft an jeden Ort der Erde, wohin du dich wünschest." *Arabische Nächte. Erzählungen aus Tausend und eine Nacht*, Berlin, Rütten & Loening, 2004 (reprint of the 1914 edition published by Gustav Kiepenheuer Verlag, Leipzig, 1914), p. 71.

⁴³ "(...) als die Jüngste von ihnen den Perser erblickte, den sie heiraten sollte, erschrak sie sehr; denn er war ein hundertjähriger Greis und hatte viele Runzeln und Falten. Das Haupthaar starrte wie Borsten, aber die Augenbrauen und der Bart waren ihm ausgefallen. Seine Augen waren rot und triefend, seine Wangen ganz eingefallen und so gelb wie Leder, und die Backenknochen traten spitz und scharf hervor. Seine plumpe Nase sah einer Gurke ähnlich, die Zähne wackelten oder waren ausgefallen, seine Lippen waren blau und glichen den Kamelnieren, und seine Hände zitterten beständig. Wahrlich, er war der häßlichste aller Menschen und von Aussehen wie der Teufel, so daß selbst die Vögel des Himmels vor seinem Anblick flohen!" *Arabische Nächte*, p. 72-75.

⁴⁷ "Der Maler Ruttmann mußte ihm, während ich ihn auf seinem Pferd langsam über die Glasplatte schob, auf einer zweiten Platte mit gemalten Blitzen erschrecken. Mußte mit reflektiertem Licht Rauchwolken und Feuerflammen für ihn erfinden. Zaubervorgänge kompliziertester Art mußten ertüftelt, mit großer Geduld aufgenommen werden, und dabei bestand er gierig darauf, immer noch trotz aller Schwierigkeit, im rechten Lichte persönlich dabei zu sein. Bertold Bartosch mußte einen Seesturm aus kunstvoll geschnitten Pauspapieren konstruieren." Lotte Reiniger, "Die Geschichte meines Prinzen Achmed", in *Lotte Reinigers Silbouettenfilm: Die Geschichte des Prinzen Achmed*, promotional brochure, Comenius Film, 1926, p. 2. ⁴⁸ See: http://en.wikipedia.org/wiki/Multiplane_camera.

⁴⁹ See: http://www.invent.org/hall_of_fame/43.html.

⁵⁰ http://www.patentcafe.com/IPFrontLine/06-23.html.

⁵¹ See Lotte Reiniger, *Shadow Theatres and Shadow Films*, p. 87: the first 'trick-table' shown is the one she worked with in the Institute for Cultural Research from 1919. The second one is already the multi-plane construction used for *Prinz Achmed*.