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## Fidelity, Capture and the Sound Advertisement. Julius Pinschewer and Rudi Klemm's *Die chinesische Nachtigall*<sup>1</sup>.

### Introduction

With the emerging scholarship on sponsored and ephemeral films, the discipline of film studies has been undergoing something of a paradigm shift. No longer taking feature films and feature-length documentary as the standard, historians are rediscovering entire worlds of moving image culture long forgotten in the vaults of corporations, advertising agencies and educational institutions. Much of the debate in recent scholarship has accordingly revolved around the question of how to treat this newfound material. Ought we to examine individual films or only consider entire corpuses? And what constitutes a single “corpus” when dealing with such fluid categories as “industrial” and “advertising” film? Above all, what value can formal or aesthetic analysis have for the study of films that were made under different auspices and followed a different set of rules from those of feature films? In one influential approach to these questions, Thomas Elsaesser has argued that scholars of sponsored and ephemeral films should attend to what he calls the “three As”, examining who commissioned the work (*Auftrag*), for what occasion or purpose (*Anlass*) and for what audience (*Adressat*).<sup>2</sup> In many ways, this argument to foreground the specific economic context of these films’ production, distribution and reception echoes the demands of early advertising theorists themselves, who repeatedly stressed the need to subordinate aesthetics in advertising images – traditionally understood as the realm of “disinterested” contemplation – to the immediate and “interested” concerns of economic efficacy.<sup>3</sup> But this is not to say that advertisers took no interest in the formal properties of advertising images. On the contrary, it would be hard to think of a realm of early 20<sup>th</sup> century visual culture in which questions of form played such a seminal role as that of advertising, bound up as it was with practices and discourses of design. Moreover, as one can gather by the enormous amounts of time and energy that advertising theorists expended testing every possible aspect of image design from size to layout to color and brightness, the centrality of formal questions stemmed precisely *from* the economic constraints within which advertising images were produced.<sup>4</sup> This concern with advertising design extended, of course, to advertising film, which overwhelmingly privileged graphic and experimental forms of animation and montage and, in Germany as in Russia, attracted the participation of experimental filmmakers.<sup>5</sup>

In this article, I want to explore this imbrication of form and context while focusing on the celebrated advertising film *Die chinesische Nachtigall* (1929) by Julius Pinschewer and animator Rudi Klemm. Still remembered today as the first sound-film advertisement, the seven-minute film was also an advertisement *for* sound film technologies: namely the new Tri-Ergon system of optical sound (or “sound-on-film”) recording, which promised to replace older forms of mechanical needle recording with photographic sound inscription. In order to tout the superiority of the new system the filmmakers rewrote Hans Christian Andersen’s famous tale *The Nightingale* to tell the story of a Chinese emperor who offers his daughter in marriage to whomever can most faithfully reproduce the nightingale’s beautiful song. After hearing from an old and plump “Herr Trichter” (Mr. Horn) and a young and dashing “Tri-Ergo”, the emperor crowns

Tri-Ergon technologies the winner and the film declares the superiority of “filming sound” over previous methods of mechanical inscription.

In unpacking the formal and rhetorical strategies of *Die chinesische Nachtigall*, my point is not to pit aesthetic analysis against contextualization, but rather to show how the film’s complex aesthetics respond precisely to its economic, technological and cultural context(s). As I will show, the film offers a fascinating example of advertising aesthetics because of the way in which it combines several of the typical formal strategies of advertising film. This aesthetic “dialogism”, I argue, along with the film’s narrative structure, can be tied back not only to its status as an advertisement for new sound technologies, but also to a fundamental ambiguity about those technologies themselves.

Here as elsewhere, then, contextual factors are crucial not as an alternative to aesthetics, but as a prerequisite for understanding the film’s formal strategies. In the case of *Die chinesische Nachtigall*, those factors situate the film at a critical juncture in the history of sound technology. Emerging after WWI, the Tri-Ergon optical sound recording process was, in fact, one of several competing systems for producing sound film by 1929. But by insisting on the Tri-Ergon system’s superior *fidelity* to an original, Pinschewer and Klemm’s film in fact takes up a rhetorical trope that had surrounded sound technologies from the late 19<sup>th</sup> century onward. It would be a mistake to understand the category of “fidelity” deterministically as an inherent quality of technological media themselves. Rather, as Jonathan Sterne has argued, the discourse on fidelity had much more to do with a process of *cultural* training; beginning in the second half of the 19<sup>th</sup> century, media consumers were increasingly taught – above all by advertisements such as that for the Victrola orthophonic phonograph – to conceive of sound technology as a “vanishing mediator”, a process in which each new media technology rendered the “noise” of the previous technology audible.<sup>6</sup> This is precisely the model we see in Pinschewer and Klemm’s *Nightingale* film when the emperor, who demands to hear a perfect reproduction of nightingale’s song – “so wie er mir in der Mondnacht erklang” – rejects Herr Trichter’s recording on account of the audible crackling sound (“Deine Platte knarrt!”) and praises Tri-Ergon for its ability to render the nightingale’s song “as if” the bird itself were present.

Although crucial to the development of integrated film soundtracks, the new technology of optical sound recording – in which sound is transformed into light and inscribed on the film-strip either as differing shades of gray or as a series of black teeth-like figures of varying heights and widths – also took part in a broader shift in sound technology in the 1920s that extended far beyond film. Spurred on by developments in radio, companies such as Victrola switched from mechanical to electric sound recording, which allowed for a wider frequency spectrum and greater amplification than mechanical recordings via horn and needle inscription.<sup>7</sup> This broader context helps to explain not only the terms of the emperor’s competition in *Die chinesische Nachtigall* (e.g. horn and needle vs. optical recording), but also an ambiguity concerning the product being advertised in the film, which in fact encompasses not only sound film, but also the use of optical recording for producing phonographic records. Although the audience of Pinschewer and Klemm’s film sees the production of a sound filmstrip, the emperor himself only hears a record, and the final shots of the film celebrate the record rather than the filmstrip.<sup>8</sup> This ambiguity concerning the product also speaks to ambiguity concerning the intended addressees of *Die chinesische Nachtigall*. While we know relatively little about the film’s actual distribution, one can surmise that it would, in fact, have been relatively limited simply on account of the low number of movie theaters equipped with sound-film technology at the time. Moreover, while lay audiences might have been in a position to purchase gramophone recordings, they could hardly

afford sound films, let alone optical sound recording technology. On the other hand, the film did receive widespread acclaim among professionals from the advertising industry, even winning a prize at the 1929 *Weltreklamekongress* in Berlin, which suggests that it was at least in part aimed at industry experts themselves.<sup>9</sup>

## Two Aesthetic Forms

As an advertisement for “faithful” sound reproduction, Pinschewer and Klemm’s film displays little interest in the well-known avant-garde debates of the late 1920s concerning the relative value of synchronized sound vs. “counterpoint”, and it should come as no surprise to find a relatively stable relation between the visual action and the voice-over narration. Turning our attention to the visual level, however, we find a different story. *Die chinesische Nachtigall* is, in fact, constructed from two distinct formal strategies, both of them already familiar from previous films produced by Pinschewer himself. On the one hand, it employs silhouette animation, a form made famous by Lotte Reiniger and also used frequently for advertising films (including several films made by Reiniger for Pinschewer’s company), where its delicate and ornamental features were considered particularly appropriate – in the words of one theorist from the time – for “leicht graziöse Dinge wie Parfüm, Blumen, zarte Gewebe, Konfekt”.<sup>10</sup>

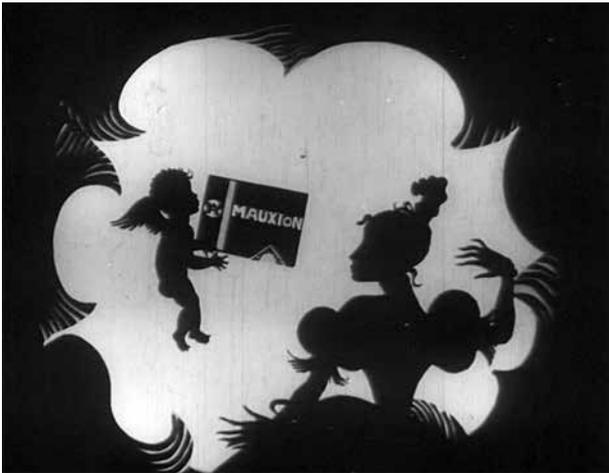


Figure 1: Still from  
*Die Barcarole* (Lotte Reiniger  
and Julius Pinschewer, 1924)

Such a usage – and the silhouette’s association with women in particular – stretches back beyond advertising film into print traditions, where graphic artists such as Adelheid Schimz and Käthe Wolff made silhouette advertisements for chocolate, perfume, champagne and clothing.<sup>11</sup> But the silhouette was also consistently associated – in films such as Reiniger’s *Die Abenteuer des Prinzen Achmed* (1926), but also in advertising films such as Pinschewer’s perfume advertisement *Khasana das Tempelmädchen* (1924) – with a fictionalized “Orient” understood as the embodiment of extreme refinement and delicacy.

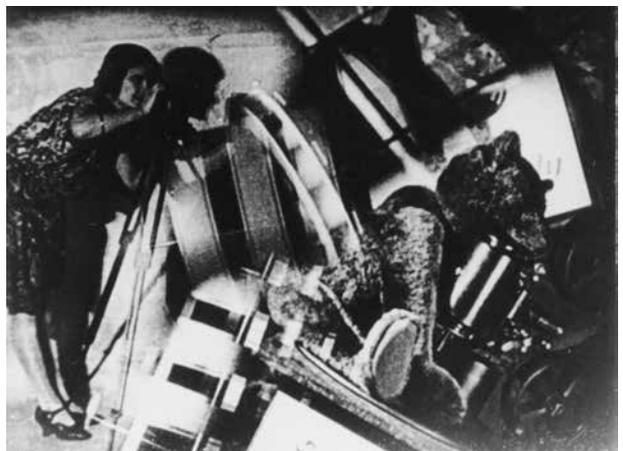
Figure 2: Still from *Khasana, das Tempelmädchen* (Toni Raboldt and Julius Pinschewer, 1923)



These associations of the silhouette with “feminine” delicacy and “oriental” refinement might seem like an odd choice for an advertisement on a new technology, but they were no doubt useful precisely for the film’s argument about fidelity – i.e. the ability of Tri-Ergon technology to reproduce faithfully the “delicate” (zärtlich) and “sweet” (süß) song of the nightingale.

However, if *Die chinesische Nachtigall* takes up this association of the silhouette with delicacy, the film also counters it, at several points, with a very different aesthetic consisting of analogue photographic images. More specifically, the directors used a technique of in-camera montage that had been recently developed by Guido Seeber to create filmic collages in which several fields of moving images play out simultaneously on the screen.<sup>12</sup> Seeber first used such “simultaneous” or “conceptual” montages in his 1925 advertisement for the *Kipho* exhibition of the film and photography industries, and it is hardly by chance if the technique recalled – as Seeber himself pointed out – the kinds of multiplied images familiar from Fernand Léger’s *Ballet mécanique* (1924).<sup>13</sup>

Figure 3: Still from *Kipho-Film* (Guido Seeber and Julius Pinschewer, 1925)



For *Kipho* was all about presenting the film industry in terms of *mechanics*: as an efficient industrial apparatus of interlocking gears and loops on the screen.<sup>14</sup> A similar function is at work in *Die chinesische Nachtigall* when the technique of the simultaneous image is mobilized to present the technological operations in the Tri-Ergon factory, from the recording phase to sound-film production to the pressing of records.

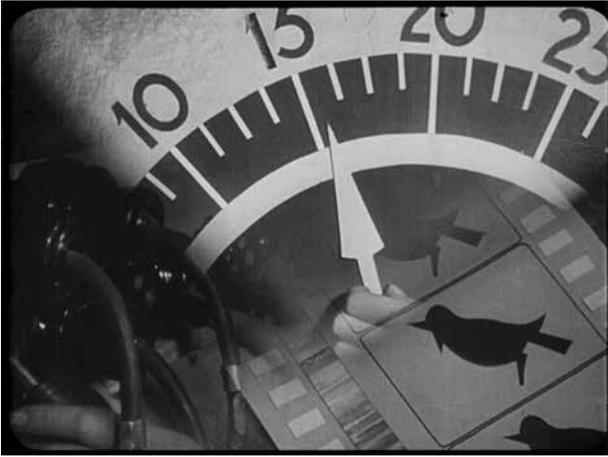


Figure 4: Still from *Die chinesische Nachtigall* (Rudi Klemm and Julius Pinschewer, 1929)

Combining animation with live action was, in fact, an ever-expanding technique of advertising film of the late 1920s, when companies often boasted their ability to produce films in the so-called “Kombinationsverfahren” to composite animated figures with live-action background. (Reiniger herself used the technique in her 1928 short *Grotesken im Schnee*). But *Die chinesische Nachtigall* differs from these attempts in the way in which it functions to *confront* – rather than combine or composite – montage and silhouette aesthetics. In so doing, the film suggests again and again the ability of technology – in its montage presentation – to “master” the delicate aesthetics of silhouette. Ideologically, such a narrative constitutes a complete reversal of Andersen’s tale, which offered a romantic critique of technology in favor of a more humble relation to nature. There, as readers will remember, the Chinese emperor replaces the nightingale with a mechanical double – one not a little reminiscent of the famous automata of the 18th century such as Jacques Vaucanson’s digesting duck or his flute player – that soon breaks down when it loses a spring.<sup>15</sup> By the time Pinschewer and Klemm set out to make *Die chinesische Nachtigall*, Andersen’s tale had already been adapted several times, including a stage version by Igor Stravinsky and, most recently, a silhouette adaptation by Reiniger from 1927. But Pinschewer and Klemm’s adaptation differed from previous versions by the way in which it turned Andersen’s romantic critique of technology completely on its head; far from revealing technology as a poor substitute for nature, Pinschewer and Klemm’s advertising film *celebrates* the new electric recording technologies as a means of capturing nature and rendering it controllable. Thus even as the filmmakers explicitly write Andersen’s haughty mechanical bird out of the story, the film nonetheless recuperates technology in the form of the optical-sound system, which now appears as a very desirable means of reproducing nature for repeated listening on the record or the filmstrip.

Here, too, one would do best to avoid any strict technological determinism. For ideas about “capture”, storage and preservation attached to media such as phonography and film were not

simply neutral descriptors of inherent technological capacities. Rather, they were thoroughly embedded within the colonial and imperial contexts of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, in which storage media were understood as the prerogative of European anthropologists who would collect and “salvage” other cultures and disappearing ways of life.<sup>16</sup> Such colonial associations are evoked in *Die chinesische Nachtigall* when – again in distinction to Andersen’s story – the film’s narrator explicitly designates the two contestants and their technologies as “European”. Indeed, not only does the film take up a classic motif of colonialist literature in recounting the conquest of the emperor’s daughter by European adventurers, it also repeatedly juxtaposes “European” technologies of automation to “Oriental” technologies of the hand. Most obviously, the emperor’s “hand net” (Handnetz), with which he tries in vain to capture the nightingale at the beginning of the film, is replaced by the phonographic horn and ultimately by the Tri-Ergon sound camera capture system. Similarly, the image of the Chinese court, with its army of courtly attendants, is countered graphically in the film by that of the Tri-Ergon factory, with its automated production process. And this graphic opposition of spaces implies an opposition of media: Whereas the emperor’s written proclamation announcing the contest has to be carried by hand throughout the realm, automated media, as we know, were consistently understood in terms of their ability to overcome the human body and the limitations of distance to which it was subject – just as the Europeans in the film appear to move with ease between Europe and China. Finally, the Eastern system of writing on light – specifically the lanterns carrying the emperor’s orders – is replaced by the automatic light-writing of the Tri-Ergon technology, by which the bird’s song is transformed into a record and a series of graphic inscriptions on the film soundtrack.



Figure 5:  
Still from *Die chinesische Nachtigall*

It is precisely in relation to these new technologies of automatic recording that Seeber’s simultaneous collage image makes its appearance, quite literally enframing the nightingale – and silhouette animation – on the screen.

Silhouettes were, in fact, associated in the scholarship of the 1920s with the kind of oriental lantern art seen in the film,<sup>17</sup> and as much as *Die chinesische Nachtigall* is about sound, it is also about *light* – specifically about the opposition between the “sweet” and “delicate” light of the lanterns and the electric light of the Tri-Ergon technology. But the nightingale in the film is also associated, repeatedly, with the soft light of the moon in numerous shots that frame the bird as a silhouette over the background of the full moon’s circle.



Figure 6:  
Still from *Die chinesische Nachtigall*

The romantic motif par excellence, moonlight had often figured as an object of critique in modernist techno-fantasies such as those of Italian futurism, with its constant calls to “kill the moonlight” through a cult of electricity.<sup>18</sup> For all its typically Weimaresque humour, *Die chinesische Nachtigall* reactivates such modernist fantasies in its celebration of electricity, which is not only mentioned on the soundtrack (“auf dem Weg der Elektrizität”) as the power at the heart of the Tri-Ergon factory, but also forms part of the all-important logo presentation at the end of the film, in which the words “Tri-Ergon” are literally inscribed into a triangle by electric surges on the screen.

## Visualizing Sound

The technological pathos informing the narrative of capture in *Die chinesische Nachtigall* might seem surprising when we recall that the phenomenon of optical sound technology itself appeared as anything but a rational process. Although first patented in Germany in 1919 by Josef Engl, Hans Vogt and Joseph Massolle, the technology – by which sounds were transformed into patterns of light and dark via a photosensitive selenium cell – had been the object of experimentation since at least the turn of the century. By the time *Die chinesische Nachtigall* was made, there existed, in fact, two systems for producing sound-on-film. One, known as *Amplitudenschrift*, *Transversalschrift* or *Zackenschrift*, entailed the production of a series of sawtooth-like patterns, whose width and height corresponded to the volume and quality of the recorded sounds. The other, known as *Sprossenschrift* or *Intensitätsschrift* and used by Tri-Ergon appeared as a series of rectangles in varying shades of white, black and grey.<sup>19</sup>

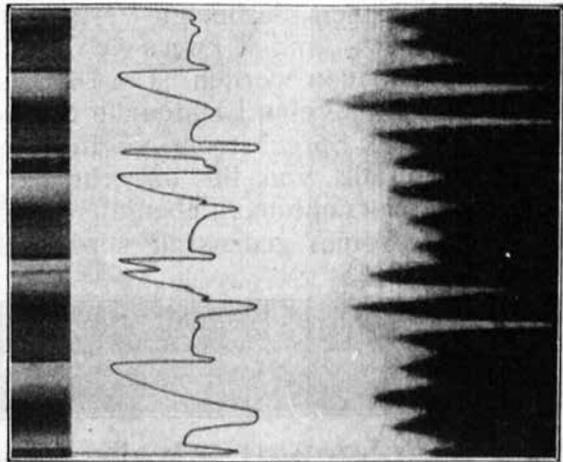


Figure 7: Illustration of two systems for sound-on-film, from Hans Wollenberg, *Der Tonfilm. Grundlagen und Praxis seiner Aufnahme und Wiedergabe.* Berlin 1930, 222

Both systems, however, involved a fundamentally mysterious conversion of sound waves into light and back again via electricity. As Corinna Müller has documented, around the time of sound film's emergence in the late 1920s, countless commentators saw the process by which the nuanced timbres of the human voice – or the complex clusters of sound emitted by a large orchestra – could be translated into a set of graphic forms as a fantastical phenomenon.<sup>20</sup> Thus Siegfried Kracauer described the impalpable operations of optical sound transformations as a form of “magic”, “an esotericism of technology” (*Esoterik der Technik*) that surpassed the Eleusinian mysteries.<sup>21</sup> *Die chinesische Nachtigall*, while offering up rudimentary explanations of the new sound-on-film process still emphasizes this sense of mystery when the narrator describes the operations of the Tri-Ergon factory as occurring “auf höchst geheimnisvolle Art”.

As Thomas Levin has shown, such a “mysterious” power of electrical sound-image conversion in fact nourished the imagination of animators and engineers across Europe, who saw in the new form-language of visual sound transcription a possibility not simply to copy nature faithfully, but to construct something more uncanny: purely *synthetic* sound, no longer governed by any ethics of fidelity to nature.<sup>22</sup> Thus László Moholy-Nagy, writing around 1928, would call for “experiments in the use of sound units which are not produced by any extraneous agency, but are traced directly on to the sound track and then translated into actual sounds in the process of projection. (E.g. the tri-ergon system uses parallel lines of varying brightness, the alphabet of which must be previously mastered.)”<sup>23</sup> Moholy-Nagy’s call to master this new “alphabet” of the visual sound forms would soon be taken up by artists in Germany (Rudolf Pfenninger, Oskar Fischinger), England (E.A. Humphries) and Russia (Arsenii Avraamov, Mikhail Tsekhanovskii, Nikola Voinov, Nikolai Zhilinski), who all labored to create systems of “sounding ornaments” (Fischinger) or “sounding writing” (Pfenninger) inspired by the new patterns of visible sound on the edges of the filmstrip.<sup>24</sup> Working with forms inspired both by *Zackenschrift* and *Sprossenschrift*, these artists – many of whom had come from schools of abstract animation of the 1920s – sought to create artificial worlds of sound directly analogous to that of visual animation: worlds no longer attached to any indexical referent.<sup>25</sup> Existing alongside a whole series of new synthetic instruments such as the Sphaerophon, the Trautonium or the Theremin, such experiments in sound animation reactivated a longstanding interest in artificial life, one that Levin traces back to Wolf-

gang von Kempelen's *Sprachmaschine* of 1791, but one that found an equivalent in the fascination with automatons such as Kempelen's own Turkish Chess Player or Vaucanson's digesting duck.<sup>26</sup>

These were, we might add, precisely the kinds of automatons that lay in the background of Andersen's mechanical nightingale, which was "made to imitate the living one" and could sing by means of a system of springs and barrels.<sup>27</sup> However, neither Andersen's uncanny bird nor any suggestion of synthetic sound appear anywhere in Pinschewer and Klemm's advertisement. Rather, the film insists on grounding its optical sound technologies in a representation of technology's indexical link to nature and a familiar narrative of "fidelity" to an original. But perhaps this very insistence on the technology's secondary role is itself telling. With the exception of a few early films, Pinschewer himself had worked almost entirely with film animators, including filmmakers from the milieu of abstract film such as Reiniger and Walter Ruttmann. Throughout his advertising films, moreover, one repeatedly encounters uncanny representations of technologies and commodities which – through various forms of trick cinematography and animation – appear to take on a life of their own: from self-sewing shirts (*Der Nähkasten*, 1912) to dancing champagne bottles (*Tanz der Flaschen*, 1912), self-circulating coins (*Der Pfennig muß es bringen*, 1925) and marching coffee pots (*Küchenrebellin*, 1934). But crucially, this "magic" of the commodity is always evoked, in Pinschewer's advertisements, only to be tamed – and more often than not channeled towards productive ends: the sale of products, the investment in banks, or (in the case of Pinschewer's wartime propaganda) the support of the national war effort. Surely Pinschewer, who specialized in animation and chose the story of a mechanical bird for his first sound film, was aware of the growing excitement about the possibility of synthetic sound in the late 1920s. But if *Die chinesische Nachtigall* evokes such possibilities at all, it does so in order to disavow them – just as it disavows Andersen's mechanical nightingale – through its insistence on grounding technology in its fidelity to nature, not replacing nature with an autonomous technology that might, in Moholy-Nagy's words, "conjure up out of nothing audible music."<sup>28</sup>

This, however, does not mean that the film takes no interest in the visual language of optical sound inscription in its own animation designs. Interestingly, although the Tri-Ergon system employed *Sprossenschrift*, Pinschewer and Klemm's film repeatedly evokes the jagged forms of *Zackenschrift* in the many images conveying the nightingale's capture by audio equipment. During Tri-Ergo's demonstration of his new phonograph record before the emperor, we see an image of the nightingale once again surrounded by a circle reminiscent of the moon in the opening shot.

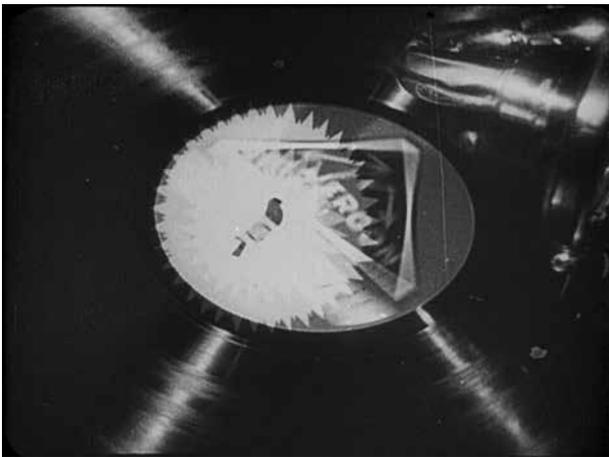


Figure 8: Still from *Die chinesische Nachtigall*

But that circle is now conspicuously framed by jagged triangles, which spin rapidly with the movement of the record. Such jagged forms then reappear in the final shot of the film, framing the bird and connoting its capture – and the overcoming of the moonlight – through electronic sound-recording technologies. If such triangles recall the triangular Tri-Ergon logo – “Tri-Ergon” literally meaning the “work of the three” and referring to the system’s three inventors – it is also reminiscent of the well-known visual forms of optical sound transcription via *Zackenschrift*.

But the film is no less concerned with visualizing *Sprossenschrift*, which is quite literally represented in the photographic demonstration of the Tri-Ergon filmstrip. What should we make of this simultaneous evocation of these two forms of sound inscription? Whereas the jagged edges of *Zackenschrift* offered a convenient visual motif to convey the nightingale’s “capturing”, perhaps the subtle hues of *Sprossenschrift* were also useful for the advertisement of sound reproduction technology, albeit in a different sense. Among other things, one of the claims this film makes for Tri-Ergon technology – as was claimed for the new electronic recording technologies generally – has to do with that technology’s ability to reproduce a greater and more nuanced tonal range.<sup>29</sup> This is the very point of the film’s recourse to the nightingale with its “sweet” and “delicate” song. But as we have seen, these were also the qualities associated with silhouette animation itself. Indeed, the fine shades of black, white and grey visible on the *Sprossenschrift* soundtrack recall nothing so much as the nuanced shades of silhouette images as they appeared both in print illustrations and film, including, most recently, Reiniger’s magisterial *Die Abenteuer des Prinzen Achmed*. While *Die chinesische Nachtigall* did not enjoy quite the production value of Reiniger’s feature film, it does nonetheless feature such color gradations and associates them with the nuance of audio fidelity.

In terms of the visual representation of sound technology, then, we can conclude that *Die chinesische Nachtigall* is characterized by yet another ambivalence, one borne out by the film’s representation of sound both as *Sprossenschrift* and *Zackenschrift*, and also echoed in the dual aesthetics of silhouette animation and industrial montage. On the one hand, the film’s claim to reproduction calls for a representation of nuance: the presentation of Tri-Ergon technology as a method refined enough to mime, as it were, the sweet song of the nightingale in all of its tenderness. On the other hand, the film is intent on representing sound technology as a form of capture and possession: a means of seizing nature and the “Orient” and rendering them productive through industrial technology. Both conceptions of sound technology, however, seek to ground that technology in nature, presenting technology as something that comes after nature, serving to manipulate it or imitate it. In so doing, they both disavow, as did Pinschewer and Klemm’s rewriting of Andersen’s tale, the possibility of the acoustic automaton – the uncanny potential of technology – that electrical sound reproduction was bringing into view.

## Credits

Figures 1–6 and 8: Screenshots from Martin Loiperdinger (Hg.), Julius Pinschewer. *Klassiker des Werbefilms*, DVD, Berlin 2010.

## Endnotes

- 1 Julius Pinschewer, *Die chinesische Nachtigall* (1929), DVD, 7 min., Germany 2010.
- 2 Thomas Elsaesser, "Archives and Archeologies: The Place of Non-Fiction Film in Contemporary Media," in *Films That Work. Industrial Film and the Productivity of Media*, ed. Vinzenz Hediger, Patrick Vonderau (Amsterdam: Amsterdam University Press, 2009), 19–35, 23.
- 3 For example, the editor of *Seidels Reklame*, Robert Hösel, explained in 1920 that advertising could not be considered aesthetic in the traditional sense "weil es sich hier nicht darum handelt, ein künstlerisches Empfinden auszulösen, sondern nur auf den geschäftlichen Vorteil des Auftraggebers gezielt wird." Robert Hösel, "Reklame und Kunst," *Seidels Reklame* 5 (1920), 299–300, 300. Echoing Hösel's sentiment, Vinzenz Hediger and Patrick Vonderau contend, in their volume on industrial films, that "most of these films might not be works of art on their own, but clearly they had a job to do." Hediger, Vonderau, "Record, Rhetoric, Rationalization, Industrial Organization and Film," in: Hediger, Vonderau (ed.), *Films*, 35–46, 46.
- 4 Such experiments are discussed in most of the publications on advertising psychology of the time. See for example Theodor König, *Reklame-Psychologie* (Munich: Oldenbourg, 1924), 27–101.
- 5 On the Russian context, see for example Lora Wheeler Mjolsness, "Dziga Vertov's Soviet Toys: Commerce, Commercialization and Cartoons," *Studies in Russian and Soviet Cinema* 2:3 (2008), 247–268.
- 6 See Jonathan Sterne, *The Audible Past* (Durham: Duke University Press, 2003), 275–282.
- 7 *Ibid.*, 276.
- 8 In its combining of two products, the film also speaks to new and emergent ideas about media convergence, which would come to the fore with the rise of sound film in Germany as companies began to sell audio recordings of popular film songs.
- 9 Pinschewer was the guest of honor at the 1929 congress, which also included a much-discussed retrospective of his films. For discussions of *Die chinesische Nachtigall*, see: "Filmische Werbeperspektiven," *Der Kinematograph* 23 (1929) 188, 1; "Der Film auf der Reklameschau," *Licht-Bild-Bühne* 22, 191, n.p.; "Im Zeichen des Reklamefilms," *Licht-Bild-Bühne* 22 (1929) 193, 1.
- 10 Käthe Kurtzig, "Die Arten des Werbefilms," *Industrielle Psychotechnik* 3 (1926), 311–314, 314.
- 11 See Michael Cowan, "The Ambivalence of Ornament: Silhouette Advertisements in Print and Film in Early 20<sup>th</sup>-Century Germany," forthcoming in *Art History* 36.4 (2013), 784–809. All of these artists also engaged heavily in book illustration, particularly the illustration of fairy tales (and Andersen's own work in silhouettes was also well known).
- 12 For a detailed description of Seeber's technique – in which he elaborated the system of masks and superimpositions he had used to film his famous doppelgänger sequences in order to divide the frame into several simultaneous fields – see Guido Seeber, *Der Trickfilm in seinen grundsätzlichen Möglichkeiten*, (Berlin 1927, reprint: Frankfurt am Main: Deutsches Filmmuseum, 1979), 240–251.
- 13 *Ibid.*, 241.
- 14 See Michael Cowan, "Rhythm, Advertising and the Filmic Avant-Garde in Weimar: Julius Pinschewer and Guido Seeber's Kipho Film," *October* 131 (2010), 23–50.
- 15 On the history of automata in the 18th century, see Adelheid Voskuhl, *Androids in the Enlightenment. Mechanics, Artisans and Cultures of the Self* (Chicago: University of Chicago Press, 2013), 1–37.
- 16 See Sterne, 27; Assenka Oksiloff, *Picturing the Primitive: Visual Culture, Ethnography and Early German Cinema* (New York: Palgrave, 2001).
- 17 See for example Bernd Melchers, *Chinesische Schattenschnitte* (Munich: Hugo Bruckmann, 1921).
- 18 Marinetti's manifesto "Uccidiamo la chiara di luna" ("Let's kill the moonlight") appeared in 1909.
- 19 According to Hans Schubert, both forms were already known in the late 19<sup>th</sup> century and formed the object of several experiments and patent claims throughout subsequent decades. Hans Schubert, *Historie der Schallaufzeichnung*, Frankfurt am Main: Deutsches Rundfunkarchiv, 1983/2002), 24–27. <[www.dra.de/rundfunkgeschichte/pdf/historie\\_der\\_schallaufzeichnung.pdf](http://www.dra.de/rundfunkgeschichte/pdf/historie_der_schallaufzeichnung.pdf)> (19. Dec. 2013). Although the Tri-Ergon system used Sprossenschrift, other manufacturers, such as the Danish Peters-Poulsen company, were experimenting with Zackschrift already in the 1920s. See Hans Wollenberg (ed.), *Der Tonfilm. Grundlagen und Praxis seiner Aufnahme und Wiedergabe* (Berlin: Lichtbildbühne, 1930), 69–71.
- 20 See Corinna Müller, *Vom Stummfilm zum Tonfilm* (Munich: Fink, 2003), 199–201.
- 21 Siegfried Kracauer, "Tonfilmbild," *FAZ* 1928, cited in: *ibid.*, 198.
- 22 Thomas Y. Levin, "'Tones from out of Nowhere': Rudolph Pfenninger and the Archeology of Synthetic Sound," *The Grey Room* 12 (2003), 32–79.

23 Cited in: *ibid.*, 48.

24 *Ibid.*, 50.

25 Thus one article on Pfenniger from 1932 could state: "Was man hier zu hören bekommt. ist also ausschließlich der Zeichenfeder und dem Tuschpinsel entsprungen. Vom Pianissimo zum Fortissimo dröhnt 'unerhörte' Musik seltsamer Farbkunst in exakten Rhythmen durch den Raum, und der fachkundige Hörer sucht meistens Vergebens nach dem Namen ihm bekannter Instrumente, mit denen diese Klänge erzeugt worden sein könnten." K. Wolter, "Gezeichnete Tonfilmmusik", *Filmtechnik* VIII, Nr. 23 (12 November 1932), 12–13.

26 Levin, "Tones," 34.

27 Hans Christian Andersen, "The Nightingale" (1844), in *Tales and Fairy Stories* (trans. Madame de Chatelain) (London: Routledge, 1852), 270–281, 275–276.

28 Cited in: Levin, "Tones," 49.

29 See Müller, *Vom Stummfilm*, 200–201, 204.