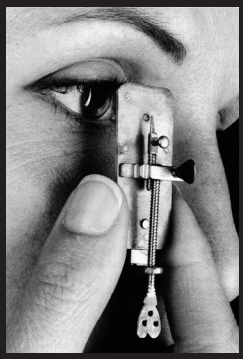
Freeplay between Science, Art and Conjouring: Advertising and the Knowing Prosumer

Martha Blassnigg



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'Free Play' between Science, Art and Conjuring: Advertising and the Knowing *Prosumer*

Martha Blassnigg

The HERA project, *Technology, Exchange and Flow: Artistic Practices and Commercial Application* (TEF), investigated the active engagement of the viewers in relation to the creative affinity and exchanges between advertising and experimental film at times of technological innovation. Drawing on previous research in the development of this project, the Plymouth University team focused on issues of cognition in the proactive processes of perception of audiovisual media as they are inherently inscribed in the technology, and which, in this way, entails its own history. What follows is a brief essay drawn from an assemblage of images around an early example of advertising that is symptomatic of the close dialogue between the sciences and the public. It reveals practices that were applied to many of the experimental apparatuses that captured and projected moving images (through technological manipulation and emotively during perception), providing their audiences with 'opportunity' and 'room for action' through proactive cognitive engagement.[1]

Advertising relies on a precarious balance when presenting their targeted audience with something classified as 'novel', and frequently pushes the envelope beyond the familiar through aesthetic, perceptual and rhetorical experiments. There is a fine line between conjuring and science, make-believe and presented fact, that lures the consumer into an active participation in the reception, recollection and, potentially, enaction of the prospect suggested by the advertised service, product or lifestyle. Just how this balance works, the complex processes involved in the

Fig. 01: Series *Justus von Liebig, der große deutsche Forscher* (Justus von Liebig, the great German scientist), 1939

Fig. 03: Liebig in his lab in Giessen

Fig. 06: The Liebig Meat Extract as sold today

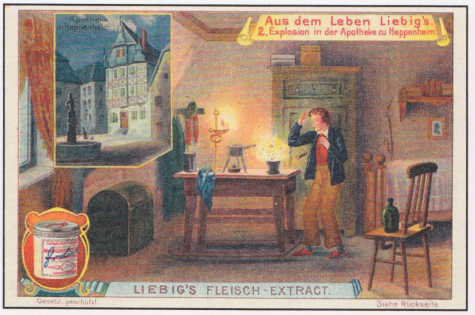


Fig. 02: Series *Aus dem Leben Liebig's* (From Liebig's Life), 1903, card: Explosion in the Heppenheim pharmacy

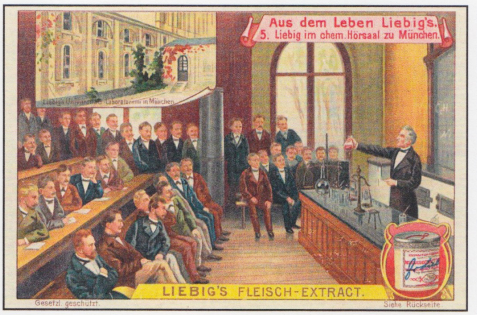


Fig. 04: Series *Aus dem Leben Liebig's* (From Liebig's Life), 1903, *card: Liebig in the lecture theatre in Munich*

convergence of science, technology and the arts, is transparently observable in some outstanding 19th century experimental advertising practices, especially in relation to the commercialisation of audiovisual media technologies.

Conjurers in the 19th century associated themselves with the sciences, at a time when science itself still entertained close contact with the public, and they displayed the latest experiments in their stageshows, alongside other sophisticated trickery and artistry, on open public platforms. The implicit contract between conjurer and audience was built on the fact that the conjurer's scientific knowledge was ahead of that of their audience, but not too much ahead, allowing for 'play' (in the sense of 'free action', 'room for action' or 'scope for activity') in the fine balance, thus encouraging participation. The audience was both complicit in the performance and, at the same time, the conjurer's greatest competitor, since the appeal lay in unravelling the trick. The wondrous aspects of the performance lay in those domains where belief was constantly challenged, expanded and reconfirmed through the sophisticated craftsmanship of novel scientific innovation and technological enchantment. The negotiated tolerance of 'room for action' lay in the interplay of curiosity, doubt and the desire to know and experience novelty and the unfamiliar that embraced manifold cultural practices built on user-participation.

As figure 1 illustrates, the famous pioneer of organic chemistry, Justus Liebig (1803-1873), was reportedly fascinated in his youth by fairground conjuring shows that exhibited the latest scientific experiments (on the right of the image, Liebig is depicted as a young boy, watching a demonstration of firecrackers). As the son of a druggist and dealer in painters' supplies and common chemicals in Darmstadt, Liebig first made contact with experimental chemistry before he was apprenticed to the apothecary Gottfried Pirsch in Heppenheim at the age of 15. In figure 2, the image (and its reverse side) describe Liebig's fascination and first experiments with firecrackers, which he is said to have watched at the fairground in Darmstadt; his apprenticeship reportedly came to an end when one of his secret experiments with fireworks in his attic room resulted in an explosion (as depicted in this 1903 Liebig trade card).

The intrinsic alliance with science provided conjurers with an authorisation of their 'truth' and credibility, whilst the most successful scientists at the time – such as Liebig himself, as well as Michael Faraday and Humphrey Davy in England – similarly understood that good science knew how to engage its public as co-creators and conspirators in the event as it happened. Liebig, for example, was hailed by his students for his unique ability to conduct each experiment as if it was his first, allowing for the

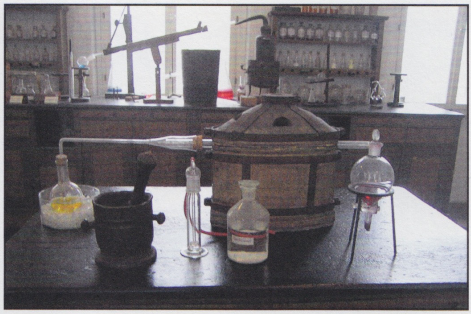


Fig. 05: Liebig Museum today, Giessen (Photographs taken in 2009)

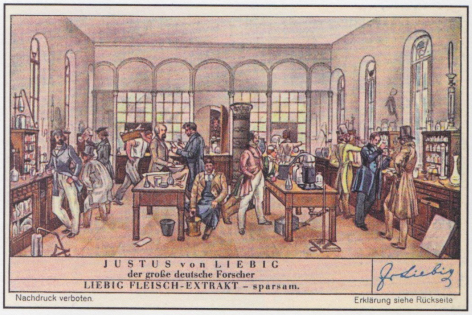


Fig. 07: *Justus von Liebig, der große deutsche Forscher* (Justus von Liebig, the great German scientist), 1939

Fig. 08: Series *Aus dem Leben Liebig's* (From Liebig's Life), 1903, card: View on Fray-Bentos, location in Uruguay of the Liebig Extract of Meat Company

greatest participation in, and co-creation of, its outcomes (see, for example, the depictions of Liebig in his work as a chemist in figures 3, 4, 5, 6 and 7). The Royal Institution in London, which was founded as an independent institute for public outreach, still describes its key aim – "connecting people with the world of science" – with the slogan: "We're about discovery, innovation, inspiration and imagination." Behind such outreach promotion there has always been the continuous struggle to fund research, the commercial application of science, and the ambition to apply and publicise knowledge through user-participation. In the course of Liebig's (at times) fierce campaign to promote chemistry internationally as the 'mother of all sciences', he made use of a great range of available connections and media to engage the various stakeholders – from science, government, industry and the arts to the public – in a new understanding of organic chemistry as instrumental to the foundation of a scientific knowledge connected to the crucial phenomena and processes of everyday life. This campaign was geared to the liberation of chemistry from the constraints of the subservient position it occupied in relation to pharmacy and physics.

The fact that Justus Liebig lent his name to a product called "Liebig Meat Extract", which today might seem too ordinary and commonplace to deserve much attention, has to be understood from this background of his investment in the popularisation of chemistry. Liebig not only retained control during his lifetime over the quality of the by Giebert in Uruguay from 1862 produced meat-extract (today known as soup stock OXO, or competing products Maggie, Knorr, etc.), but the product can be seen as part of the larger campaign to promote the scientific findings of organic chemistry in applied areas such as agriculture and cooking practices. It also promoted Liebig's original vision of a cheap meat supplement for the poorer population in Europe whose staple diet consisted largely of potato. Although the pharmaceutical classification was soon downgraded from medicinal concentrate to food-supplement and cooking ingredient, its legacy was still traceable in the marketing of the product, especially in the original Latin name of the product, Extractum Carnis Liebig, and Liebig's authorised signature in blue ink (see figures 6 and 11). Frequently the product's special quality was still indicated as "verdauungsfördernd" (trans. "stimulates digestion") on the trade cards.

The high-quality chromo-lithographic advertising trade cards[2], so-called Liebig cards *(Liebigbilder)*, were introduced in 1872, when the extract's mass production encountered severe competition with the introduction of refrigeration on ships, which enabled the export of fresh meat from the Americas to Europe.

to be continued on page 57

Fig. 09: Album

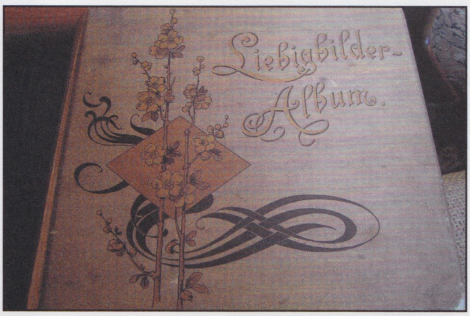


Fig. 10: Album

Fig. 11: Liebig Museum, Giessen (Photographs taken in 2009) (Label "Marmite: Brewer's Yeast according to Liebig")


LIEBIG COMPANY'S FLEISCH-EXTRACT
aus FRAY-BENTOS.
Höchste Auszeichnungen auf ersten Weltausstellungen seit 1867.
Ausser Preisbewerb seit 1885.
1892 2266
Nur echt wenn jeder Topf den Namenszug „J. v. LIEBIG" in blauer Schrift quer durch die Etiquette trägt.
Der Lehrer der Kochkunst, L. Kurth in Berlin, äussert sich in dem von ihm verfassten Illustrirten Kochbuch wie folgt: „Liebig's Fleisch-Extract ist **das geeignetste Mittel zur Verstärkung von Brühen und Saucen** und **bisher unübertroffen.**" Dieselbe Autorität erklärt auch, zum Schlusse einer Anweisung zur Bereitung von Tafelbouillon, Seite 57: „An Stelle der Tafelbouillon kann man Liebig'schen Fleisch-Extract verwenden, da die Bereitung der ersteren zeitraubend ist, sich nur lohnt, wenn man viel Fleischabgänge zur Verfügung hat."
I. AUFLÖSUNG: II.
6 3 6 | 7 1 7
3 3 | 1 1
6 3 6 | 7 1 7
Liebig Company's Fleisch-Extract ist überall erhältlich, ausser in den bekannten Töpfen auch in Blechdosen à 2 und 5 Pfd. englisch.
Publishers: Liebig's Company, London.

Fig. 12: Backside of Liebig trade card with the solution to a riddle (published in London it indicates the Pound Stg. price for the extract pot)

Series *Das Rind im Liebigtopf* (Cattle in the Liebig Pot), 1878–1883

Fig. 13a: *Das Rind im Schlachthaus*

Fig. 13b: *Liebig vor dem Rind als Richter*

Fig. 13c: *Rind zieht Wagen mit Liebigtopf*

Fig. 13d: *Trauernde Kuh und Kalb am Grabe*

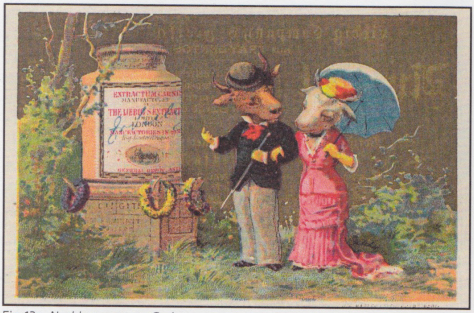


Fig. 13e: *Nachkommen am Grab*

Fig. 13f: *Urteil der Preisrichter*

Fig. 14: Liebig Album c. 1900 (Fam. Hörtnagl/Schiestl, Kufstein)

Fig. 15: Photograph taken in the Liebig Museum, Giessen, 2009

Fig. 16a: *Die Geister*

Fig. 16b: *Der Magnetismus*

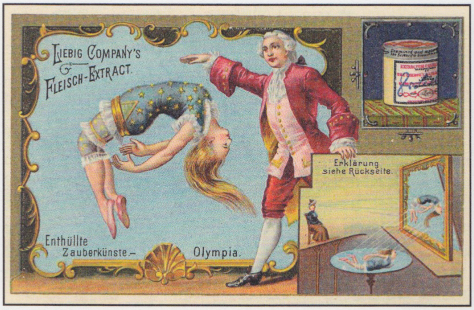


Fig. 16c: *Olympia*

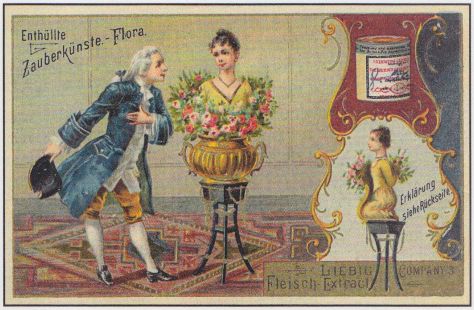
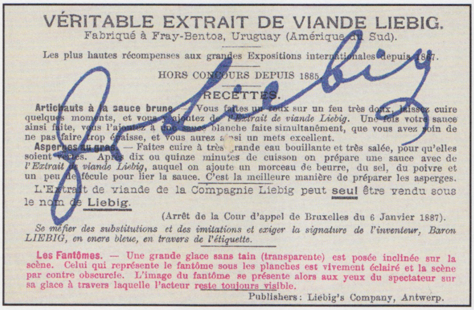


Fig. 16d: *Flora*

Fig. 16e: *Der redende Kopf*

Fig. 16f: *Die Najade*



VÉRITABLE EXTRAIT DE VIANDE LIEBIG.

Fabriqué à Fray-Bentos, Uruguay (Amérique du Sud).

Les plus hautes récompenses aux grandes Expositions internationales depuis 1867.

HORS CONCOURS DEPUIS 1885.

RECETTES.

Artichauts à la sauce brune. — Vous faites un roux sur un feu très doux, laissez cuire quelques moments, et vous y ajoutez de *l'Extrait de viande Liebig*. Une fois votre sauce ainsi faite, vous l'ajoutez à une sauce blanche faite simultanément, que vous avez soin de ne pas faire trop épaisse, et vous aurez ainsi un mets excellent.

Asperges au gras. — Faites cuire à très grande eau bouillante et très salée, pour qu'elles soient vertes. Après dix ou quinze minutes de cuisson on prépare une sauce avec de *l'Extrait de viande Liebig*, auquel on ajoute un morceau de beurre, du sel, du poivre et un peu de fécule pour lier la sauce. C'est la meilleure manière de préparer les asperges.

L'Extrait de viande de la Compagnie Liebig peut **seul** être vendu sous le nom de **Liebig**.

(Arrêt de la Cour d'appel de Bruxelles du 6 Janvier 1887).

Se méfier des substitutions et des imitations et exiger la signature de l'inventeur, Baron LIEBIG, en encre bleue, en travers de l'étiquette.

Les Fantômes. — Une grande glace sans tain (transparente) est posée inclinée sur la scène. Celui qui représente le fantôme sous les planches est vivement éclairé et la scène par contre obscurcie. L'image du fantôme se présente alors aux yeux du spectateur sur sa glace à travers laquelle l'acteur reste toujours visible.

Publishers: Liebig's Company, Antwerp.

Fig. 16g: Back of Card 1 (French edition) *Les Fantômes* (Die Geister) Description of magic trick in red

Series *Hinter den Kulissen des Kinematographen* (Behind the scenes of the Cinematograph), 1913

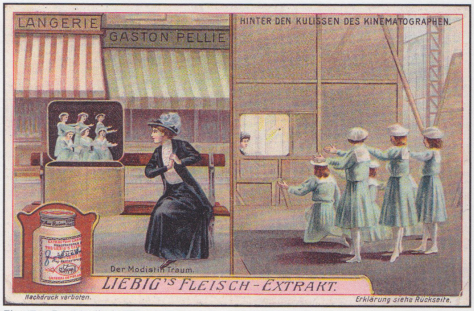


Fig. 17a: *Der Modistin Traum*

Fig. 17b: *Die entlaufenden Kürbisse*

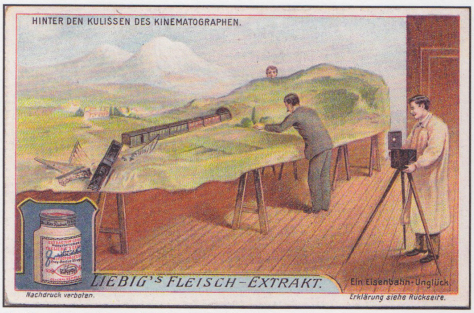


Fig. 17c: *Ein Eisenbahn-Unglück*

Fig. 17d: *Die Sirene*

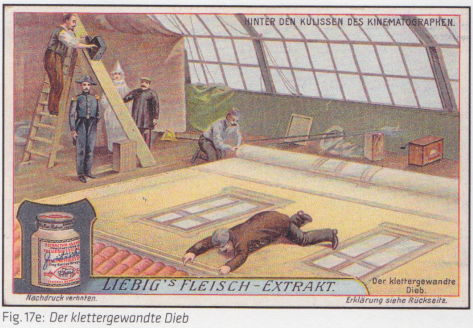


Fig. 17e: *Der klettergewandte Dieb*

Fig. 17f: *Ein Automobil-Unfall*

LIEBIG'S FLEISCH-EXTRAKT

hergestellt in FRAY-BENTOS (Uruguay) und COLON (Argentinien).

Die wässerigsten Suppen und die flauesten Gemüse werden wohlschmeckend und bekömmlich durch Beifügung des echten Liebig's Fleisch-Extrakts. Unentbehrlich in jeder guten Küche. Man hüte sich vor Nachahmungen.

HINTER DEN KULISSEN DES KINEMATOGRAPHEN.

DER MODISTIN TRAUM. Sinnend sitzt die kleine Modistin auf einer Bank, neben sich den Hutkarton. Es ist wohl die einschmeichelnde Melodie vom «Walzertraum», die ihr durch den Kopf geht. Da hebt sich der Deckel des Kartons und o Wunder! — junge Mädchen werden darin sichtbar und führen vor ihren erstaunten Augen einen anmutigen Reigen auf.

Wenn die Tänzerinnen in Wirklichkeit befinden, zeigt uns das Gegenbild: der Deckel des Kartons entspricht genau einem Ausschnitt in der Kulisse des Aufnahme-Theaters und durch diesen hindurch werden die Tänzerinnen vor einem schwarzen Hintergrund, aufgenommen. Im geeigneten Moment hatte der Aufnahme-Apparat seine Tätigkeit unterbrochen und ein Gehilfe des Operateurs hat den Deckel des Kartons und den entsprechenden Einsatz der Kulisse herausgenommen. Die Bank steht ganz dicht an der Kulisse, und ihre Lehne ist sogar nur gemalt.

Zur GRATIS-Verteilung.

OXO Bouillon der Compagnie Liebig.

Reine gewürzte Fleischbrühe. Sofort trinkfertig.

1½-2 Theelöffel voll zu einer Tasse heissen Wassers geben eine vorzügliche Bouillon.

Fig. 17g: Back of card 1 *Der Modistin Traum* (The Designer's Dream with a description of the cinematic trick)

Series *Wie ein Liebigbild entsteht* (The Making-of a Liebig Bild), 1906

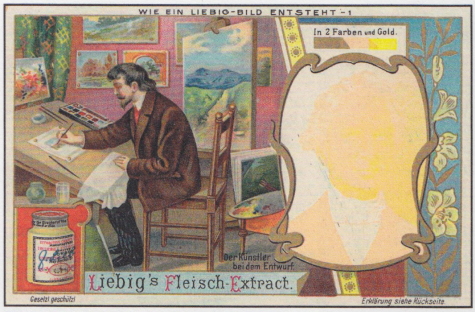


Fig. 18a: *Der Künstler bei dem Entwurf*

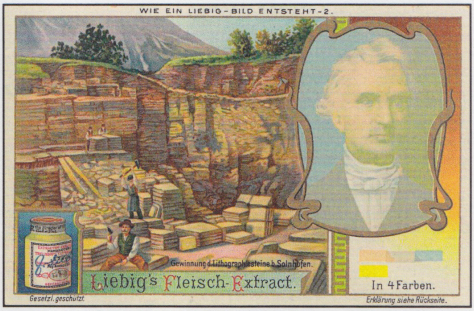


Fig. 18b: *Gewinnung d. Lithographiesteine b. Solnhofen*

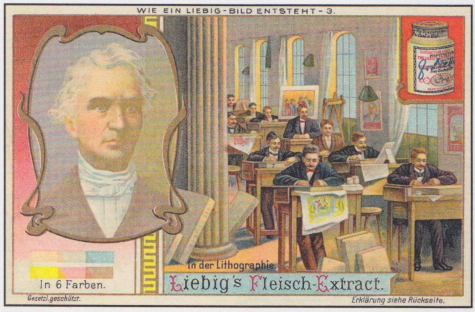


Fig. 18c: *In der Lithographie*

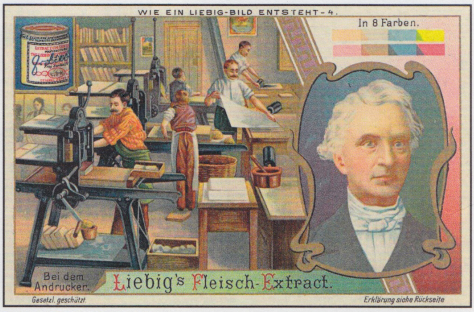


Fig. 18d: *Bei dem Andrucker*

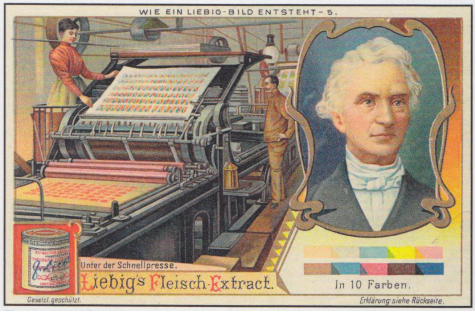
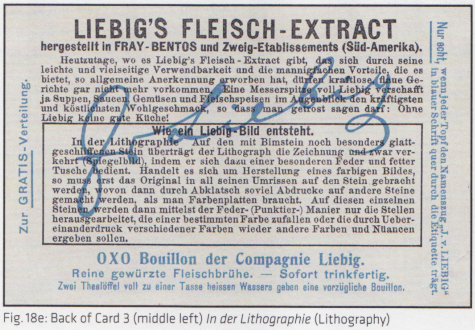


Fig. 18e: *Unter der Schnellpresse*

Fig. 18f: *Schneiden u. Verpacken*



LIEBIG'S FLEISCH-EXTRACT

hergestellt in FRAY-BENTOS und Zweig-Etablissements (Süd-Amerika).

Heutzutage, wo es Liebig's Fleisch-Extract gibt, das sich durch seine leichte und vielseitige Verwendbarkeit und die mannigfachen Vorteile, die es bietet, so allgemeine Anerkennung erworben hat, dürfen kraftlose, fade Gerichte gar nicht mehr vorkommen. Eine Messerspitze voll Liebig verschafft in Suppen, Saucen, Gemüsen und Fleischspeisen im Augenblicke den kräftigsten und köstlichsten Wohlgeschmack, so dass man getrost sagen darf: Ohne Liebig keine gute Küche!

Wie ein Liebig-Bild entsteht.

In der Lithographie. Auf den mit Bimstein noch besonders glattgeschliffenen Stein überträgt der Lithograph die Zeichnung und zwar verkehrt (Spiegelbild), indem er sich dazu einer besonderen Feder und fetter Tusche bedient. Handelt es sich um Herstellung eines farbigen Bildes, so muss erst das Original in all seinen Umrissen auf den Stein gebracht werden, wovon dann durch Abklatsch soviel Abdrucke auf andere Steine gemacht werden, als man Farbenplatten braucht. Auf diesen einzelnen Steinen werden dann mittelst der Feder- (Punktier-) Manier nur die Stellen herausgearbeitet, die einer bestimmten Farbe zufallen oder die durch Uebereinanderdruck verschiedener Farben wieder andere Farben und Nüancen ergeben sollen.

OXO Bouillon der Compagnie Liebig.

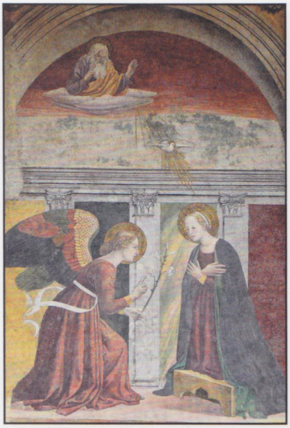
Reine gewürzte Fleischbrühe. — Sofort trinkfertig.

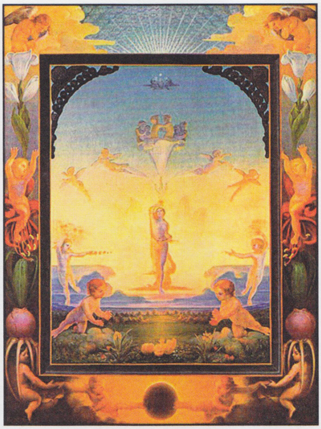
Zwei Theelöffel voll zu einer Tasse heissen Wassers geben eine vorzügliche Bouillon.

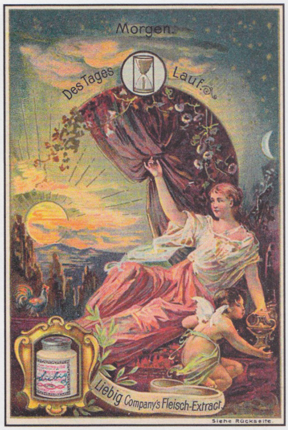
Zur GRATIS-Verteilung.

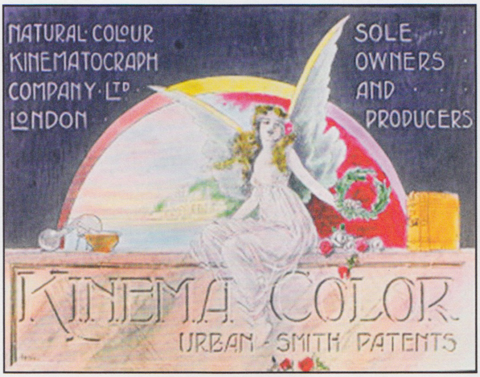
Nur echt, wenn jeder Topf den Namenszug „J. v. LIEBIG" in blauer Schrift quer durch die Etiquette trägt.

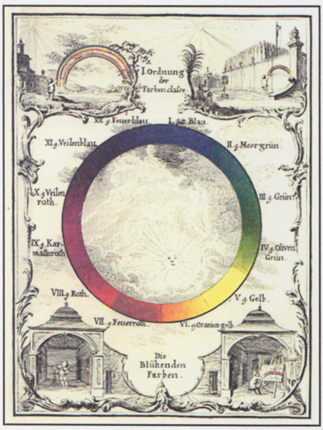
Fig. 18e: Back of Card 3 (middle left) *In der Lithographie* (Lithography)

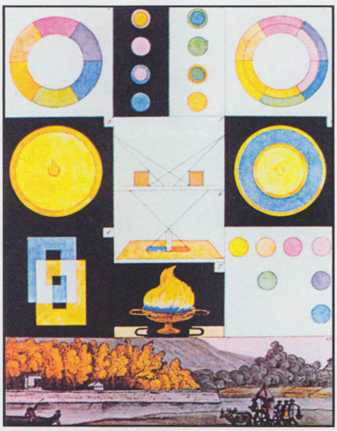


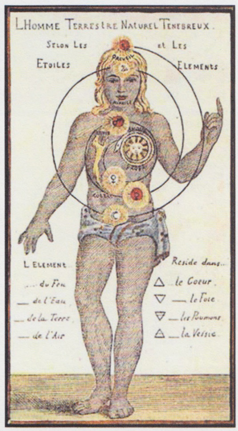



Morgen.
Des Tages Lauf.
Liebig Company's Fleisch-Extract.
Siehe Rückseite.


NATURAL COLOUR KINEMATOGRAPH COMPANY LTD LONDON
SOLE OWNERS AND PRODUCERS
KINEMA COLOR
URBAN SMITH PATENTS


I. Ordnung der Farbenclasse.
XII. g. Feuerblau.
I. Blau.
XI. g. Veilenblau.
II. g. Meergrün.
X. g. Veilenroth.
III. g. Grün.
IX. g. Karmasinroth
IV. g. Oliven Grün.
VIII. g. Roth.
V. g. Gelb.
VII. g. Feuerroth.
VI. g. Oraniengelb.
Die Blühenden Farben.




LHOMME TERRESTRE NATUREL TENEBREUX.
SELON LES ETOILES
ET LES ELEMENTS
L ELEMENT
... du Feu
— de l'Eau
— de la Terre
— de l'Air
Reside dans...
△ le Coeur.
▽ — le Foie
▽ — les Poumons
△ — la Vessie.

With explanations on the back as to how to use the extract, as well as details of its award-winning qualities, cooking recipes, descriptions of the cultural imagery and, in some cases, the solution to riddles and other trickery, with visual deception displayed in the images on the front (figure 12), the early cards exemplify the intrinsic interaction between the scientific community and the public that was still active and transparent during the later 19th century. By interconnecting the chemist's laboratory, industrial production and the science of cooking in a broad range of highlighted cultural practices, the Liebig cards displayed from the outset a high awareness of self-referentiality with regard to the originator and the production, distribution, uses and aspirations of the advertised product, which even extended to animal empathy and ethical reconciliation (for example, figures 8 and 13). In addition, the clever artistic and industrial applications of high-quality chromo-lithography, and the inter-textual, media-transparent references to other contemporary popular audiovisual media, enriched the popular appeal of these exemplary trade cards (figures 17 and 18). In their media-consciousness, some outstanding examples drew from the popular appeal of existing philosophical toys, devices and conjuring techniques (figures 16 and 17), and invented novel forms of co-creation and recollection such as the collectors' albums, which became immediately popular in the first years of the trade cards' introduction (figures 9, 10, 14 and 15). Soon after their inception, specialist shops began dealing in the cards, collectors' associations were founded, and by 1895 there existed several monthly journals, newspapers and catalogues for Liebig-image *(Liebigbild)* collectors.

Placed in a wider contextual understanding of the shift that took place in the later part of the 19th century, with the scientific community's increasing withdrawal from the public sphere, the Liebig cards can be seen as symptomatic of attempts to embrace user participation in the widening gap between the scientific laboratory and the user community, viewing it as a lacuna that facilitated 'room for action' and engagement with public desires and the popular imagination. Drawing on the legacy of Liebig's own public engagement, the cards (with their popular imaginary and educational stance, their riddles and deceptive images, their use of cooking recipes, their collection of thematic series and modular building blocks for various histories of technology and science) were designed to be used – to be 'played' with. At the same time, the cards both inscribed their own media history in terms of their self-referentiality and were symptomatic of the way audiovisual media increasingly documented the very history of their cognitive affordances and effects. This includes, for example, not only the effects of seriality – in the series of card sets of six single images, the serial layering of the chromo-lithographic printing technique, the seriality of thematic set collections and the thaumatropic effect of some riddle cards playing with the rendering visible of the invisible – but also with reference to one of the first global animal mass-production industries of its kind. By revealing the trick of the conjurer (the magic performance and cinematic trickery as well as the implied magic of the chemistry involved in the meat-extract production), the trade cards placed themselves on the side of their audience by assisting, through participatory co-creation, in the unravelling of the cognitively impenetrable effect of the media. Figures 16 and 17 exemplify this media transparency with detailed descriptions of the applied techniques on the back of the cards, similar to the way scientific demonstrations, such as the various demonstrations of the cinematograph, were always accompanied (unlike conjuring shows) with elaborate commentary and explications of the mechanisms at work so as to enable the fullest cognisant participation of their audience.

The transparent invitation to the viewer to engage in active, co-creative participation in the perceptual process leads to a thicker understanding and reading of the interrelationship and 'room for action' between scientific innovation, artistic mediation and commercial application. A close analysis of the medium in relation to its users in the wider context of visual culture reveals how the 19th century Liebig trade cards chime with the preoccupation with embodied perception in the psychological roots of the avant-garde in 19th century scientific and aesthetic theory, which carried a legacy of Romanticism and resulted in a close alliance between so-called high art and commercial culture. This is touched upon on the last page, through an experimental juxtaposition of images drawn from research into the anticipation of the early 20th century avant-garde during the so-called early cinema period in an encounter at the crossroads of science, technology and the arts. It is included here to indicate, through an associative assemblage, how the Liebig cards can be seen as symptomatic of aspects similar to those that drove the avant-garde as it reflected the popular engagement with visual culture.

Endnotes

1 The term 'play' as it is used in this essay draws from the definition in the Oxford English Dictionary as "5b *fig. & gen.* Free action; freedom, opportunity, or room for action; scope for activity" (5th edition, 2002).

2 The Liebig trade cards were uniquely produced high-quality lithographic prints They were distributed throughout Europe and the US from 1872 to the 1970s in 12 languages, and in more than 11,000 series of six images per set, and could be obtained by buying the meat stock Liebig-Extract.

Images: out of the archive of M. B.

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