
Real Gold?

A Material for 1930s Shoes¹

Katharina Tietze

On 24 January 1937, the *Neue Zürcher Zeitung* published an article entitled “Mode in Gold”, which reported that:

Fashion has adopted the gold standard. Now that we’ve reached the high point of the season, everything is giving way to gold. Gold jewelry is being worn everywhere [...]. Gold sandals have the advantage of matching clothes of any colour. Made of gold leather or moiré and embroidered with gold sequins, they are frequently worn over ultrafine stockings with a golden sheen. As you would expect, in the evening light the effect is simply dazzling.²

This essay will explore 1930s shoes for evening wear produced by the Swiss company *Bally*. The firm’s archive in Schönenwerd contains an impressive number of elegant evening shoes made of gold leather, and in what follows I will investigate the materials that were used for these shoes. Are they made of leather plated with real gold leaf or gold foil? Could this really have been the fashion during the 1930s—a decade marked, after all, by the fallout of the Great Depression and general belt-tightening? After introducing these products of the 1930s and analyzing their constituent materials, I will draw comparisons with other lustrous materials from the same era and also cast a critical eye at shoe styles, before concluding with a case study that illustrates the importance of cinema on shimmering fashions. I will explore a range of different factors, including technological developments and cultural perceptions, in order to describe the significance of a specific lustrous material during the interwar period, looking at both its real and metaphorical value.

Bally Shoes

The sheer diversity in the range of shoe models produced during the 1930s is unique in the history of the company. In Schönenwerd, roughly an hour’s train ride from Zürich, *Bally* manufac-

tured shoes for women, men, and children ranging from army boots to sports and comfortable footwear. *Bally* shoes were renowned for their quality, with first-class materials worked to exceptionally high standards, generally in classic styles. It is only since the turn of the 21st century that the firm has come to see itself as a luxury brand.

Over a third of the 600 women's shoes dating from the 1930s are evening shoes, and gold leather was used in around half of these (some 120 shoes). Twenty-five of these models are made entirely of gold leather, while a further 84 are decorated with gold leather details [FIG. 1]. The gold evening shoes, with heels measuring between six and ten centimetres, are generally closed at the heel or the toe. Open sandals and closed pumps are relatively rare. The photograph shows the characteristic features of *Bally* shoes: Although their shapes and the original lasts are very similar, there is a huge array of decorative elements to go with them [FIG. II]. The gold leather shows some variation; still, the majority of the shoes (which are now almost 80 years old) feature strikingly high-quality uppers. This can be seen particularly clearly here thanks to the use of smooth and textured gold



[1] Bally gold leather evening shoes from the 1930s
(Historical Archives of Bally Schuhfabriken AG; photo: Manuel Fabritz,
© Bally)

leather on the heel [FIG. III]. Where gold leather is used as a decorative detail, it is usually set contrasting against another material—generally a fabric, such as green or burgundy satin, in a manner typical of 1930s fashion [FIGS. IV, V]. The combination of gold with black leather or suede is very common, and gold and silver leathers are often used for decorative elements such as ruching or straps.

The shoes in the archives are prototypes which have never been worn. Nonetheless, they force us to wonder what kinds of occasions they were intended for—presumably balls or other dances. They probably provide good support to the foot, and it is easy to imagine how they might glitter and flash when worn under a long evening gown in a festively lit ballroom.

Another reason for the large number of gold shoes in the archives is that many of these models were exhibits in the Swiss National Expo of 1939.³ Archive and museum coordinator Rebekka Gerber was able to identify more than half the shoes displayed in one case (including the model shown in FIG. VI). During the 1930s, *Bally's* Swiss catalogue listed only shoes with gilded appliquéd details. Evening shoes with vamps and sling-



[II] Selection of Bally evening shoes from the 1930s (Historical Archives of Bally Schuhfabriken AG; photo: Manuel Fabritz, © Bally)

backs made *entirely* from gold leather are completely absent, which suggests that these models were primarily intended for export.

Leather, Gold, Gold Leather

Gold leather unites two different materials: leather is the primary material and serves as a base, while gold provides a finish, a colour, or a coating. The combination of the two materials has its own unique qualities and significance.

Shoes have long been made from leather, with the material lending these objects their unique character. It forms a second (animal) skin that provides a sculptural enclosure for the foot and also displays the marks of its use. The leather is responsible for the typical characteristics of shoes—in particular, the impression they create of the foot or feet—so that, unlike clothes, they retain the shape of the wearer’s body even when unworn. They also display signs of wear that vary from customer to customer and which are even, to a point, cherished as such. Thus shoes can also be an artistic medium; they stand not only for the social background of the wearer, but also for their personal biography, as Monika Wagner demonstrates in her examination of



[111] Bally shoe, 1937
(Historical Archives of Bally Schuhfabriken AG; photo: Manuel Fabritz,
© Bally)

an installation by Peter Greenaway.⁴ Leather also has functional qualities, being capable of stretching, contracting, and absorbing moisture—all of which are indispensable attributes for footwear. *Bally* evening shoes were made using top-quality chrome-tanned kid leather, which is derived from the skins of young goats and is soft, supple, and hardwearing. *Bally* bought its leather from the Heyl'sche Lederwerke in Worms, among other suppliers, and also operated two of its own tanneries in South America.

Gold is a chemical element and the most precious of all metals. It tends to appear at the top of ranking systems for materials.⁵ Gold is both an ornament and a means of payment. Its luxurious warm glow symbolizes wealth and power. Gold cannot be manufactured by artificial means, and the rarity of its occurrence is also what makes it so valuable. Of the approximately 100,000 metric tons of gold that exist on Earth, one third is stored by central banks in the form of gold reserves.⁶ Because it is a very soft metal, gold objects (including decorative items) are always made of alloys, which may contain silver, copper, palladium, or nickel. Brass and bronze are the most important gold-coloured alloys. Brass is an alloy of copper and zinc, while bronze consists of copper and tin. These alloys play a special role when it comes to jewellery. As Eva Heller explains regarding one such brass:

“Talmi gold”, seen today as the epitome of fake or cheap jewellery, derives its name from the Parisian metalsmith Paul Tallois of Tallois & Mayence, whose imitation gold, “Tallois-demi-or”, was abbreviated to *talmi*. This alloy of copper and zinc can even contain up to 1% gold.⁷

The boundary between the real and the fake is thus often fluid. Rather than being cast in solid gold or gold alloy, objects are often merely gold-plated—either through galvanization or using gold leaf, depending on the material in question. A single gram of gold yields around half a square metre of gold leaf.

Gold leather is always made of real leather, but not necessarily of real gold. An example of the latter is an Egyptian sandal held in the collection of the Victoria & Albert Museum. Made around the turn of the Common Era, the leather sole of

this shoe is decorated with gold-leaf patterning. There is also a long tradition of manufacturing gold leather for use in wall coverings and bookbindings. Andreas Schulze describes in detail the production process behind the gold leather wall coverings in Schloss Moritzburg, Saxony, which date to around 1725.⁸ Here, silver leaf was glued onto the leather before the gold colour was applied using special varnishes. The leather was then decorated with embossing and punchwork and also painted. This is a complex piece of craftsmanship, with many stages to the process.⁹ By contrast, the 1930s shoes here focused on are industrial products, so the gold coating must have been applied in serial production.

But what are the golden uppers of these shoes made of? The 1936 *Handbuch der Gerbereichemie und Lederfabrikation* (Manual on tanning chemistry and leather manufacture) states that:

Gold- or silver-plating of high-quality leather involves the use of real gold or silver leaf. [...] With cheap leathers, the genuine metal leaf is generally replaced with artificial bronze powder. Aluminum powder offers a substitute for silver, while gold-bronze consists of a powdered



[iv] Bally evening shoes with gold leather details
(Historical Archives of Bally Schuhfabriken AG; photo: Manuel Fabritz,
© Bally)

copper alloy. The binding agent for the bronze is a colourless collo-dion varnish, which [...] was diluted in order to facilitate spraying.¹⁰

A 1955 edition of the same guide adds that “sometimes the uppers of luxury women’s shoes are made of leather plated with real metal, but sometimes they are made of cheaper imitations”.¹¹

It is easy to establish the exact materials that were used with the help of an electron microscope; however, this requires a piece of leather for analysis, and naturally the historical shoes in the collection may not be damaged—not even to remove just a few square millimetres of material.

Fortunately, the *Bally* Historical Archives also hold a suitcase containing a description of the shoe manufacturing process, as well as a number of leather samples. The table of contents is dated 16 February 1943. The gold leather, listed as No. 6 in the section on leather used in uppers, is documented as follows: “kidskin, goat, specially tanned or chrome-tanned, decorative and luxury leather.” I was able to submit a piece of this leather sample to the Forschungsinstitut für Leder und Kunststoffbahnen, an independent research institute in Freiberg, for



[v] Bally evening shoes with gold leather details
(Historical Archives of Bally Schuhfabriken AG; photo: Manuel Fabritz,
© Bally)

analysis. When the electron beam was set to 10 kV, X-ray microanalysis indicated a mass fraction of gold (Au) of 87.1, along with smaller quantities of silver (Ag), carbon (C), and oxygen (O). At an energy level of 30 kV, the beam penetrated deeper into the material and revealed greater mass fractions of carbon and oxygen, indicative of the organic compounds in the leather. This demonstrates that the shoes were made with real gold—a fact that explains the warm glow of the leather, which still looks almost new (after all, gold never tarnishes) and possibly also my lasting fascination with these almost 80-year-old shoes.

How was the gold applied to the leather, and where did *Bally* get its gold leather from? Werner Deutschmann, an employee at *Bally* from 1961 until 1990, went to work at the Emil Waeldin leather factory in Lahr in the Black Forest after completing his apprenticeship as a leather technician at the aforementioned institute in Freiberg. Emil Waeldin was a producer of gold leather, and Deutschmann provides us with the following account:

Nobody was allowed inside the room. That was where the gold leaf was stored in piles. Around fifteen to twenty women worked in that department. The company was wound up in the early 1970s. Bally was one of its customers, a very demanding customer. I think the factory belonged to the Heyl'sche Lederwerke.¹²

In an interview with Alberta Fabian, a former worker at the Heyl'sche Lederwerke, the journalist Ulrike Schäfer gives a more detailed description of the process:

From 1950 onwards, the [...] eighteen-year-old worked at Heyl Liebenau in Neuhausen, where she applied gold and silver¹³ leaf to finished pieces of leather inside a draft-free room. "It was very delicate work," she explains. "We would take a twelve-centimetre square of wire mesh in a wooden frame and lay it over the gold leaf. Then we would blow gently on it, drawing the fine material onto the mesh and making it stick in place. After that, we would press it carefully onto the kid leather, which had already been coated in a layer of adhesive. We had to take great care to ensure that the gold leaf lined up exactly with the neighbouring piece [...]." Fabian never saw how the gold- and sil-

ver-plated leather—named *Fafnerkid* and *Fasoltkid*, respectively, after the giants [Fafner and Fasolt] from the Germanic *Nibelungen* saga—was subsequently processed.¹⁴

Golden Shoes

Even in the 1890s, during the earliest days of industrial production, we see shoes made from gilded leather, such as a pair from around 1891 held in the collection of the Metropolitan Museum of Art in New York. The high quality of the gleaming golden uppers on these shoes is readily apparent. The earliest gold shoes in the *Bally* Historical Archives date to 1920. These are a pair of pumps made from a gold leather that has a softer, more muted glow. There are even examples of men's shoes from the 1920s made of gold leather. The shoe collection of the Northampton Museum and Art Gallery in England features lace-up ankle boots with uppers made entirely of gold leather, which were manufactured by Mounts Shoe Factory Co. Ltd. in 1922. Another unusual example is provided by the men's shoes from around 1922 in the collection of the Victoria & Albert Museum, which are made from turquoise marbled leather with gilded leather appliqués. Nonetheless, gold shoes only began appearing in significant quantities during the 1930s. As elegant women's shoes, they constitute a typical item of evening wear during that period—a fact demonstrated by both the article quoted at the beginning of this essay and the numerous shoes held in the *Bally* archives. Golden shoes have come into fashion repeatedly over the years, with the latest incarnation of this being the current trend for golden sneakers and golden Birkenstock sandals. The example of contemporary fashion in the exhibition *The Gold Standard: Glittering Footwear from around the Globe* (on display at the Bata Shoe Museum in Toronto, 2019) is a pair of golden sneakers created by Jeremy Scott for Adidas. Scott's design features a wing motif evocative of the messenger god Hermes. The exhibition also includes a number of *Bally* shoes.

The stylistic elements of the shoes in the collection provide us with information about the significance of gold leather as a material during the 1930s. Two examples from the *Bally* Historical Archives feature classical motifs: an evening sandal

with straps of gold leather decorated with a stitched Greek key pattern [FIG. VI], and another golden sandal decorated with a sculptural scallop-shell design reminiscent of the *Birth of Venus*, Botticelli's seminal image of the Roman goddess of love and beauty [FIG. VII].

Golden shoes made by other manufacturers display influences from foreign cultures. One of the most important shoe designers at this time was Salvatore Ferragamo (1898–1960), whose pyramid-heeled shoe [FIG. VIII] refers to a discovery that certainly played a role in gold's rise to fashion: In 1922, Egyptologist Howard Carter presented to the world the treasures from the tomb of Tutankhamun. Many of Tutankhamun's grave goods are made from gold-plated wood, but some (including the iconic mask) are pure gold. Other designs by Ferragamo feature raised toes and wedge soles combined with gold leather, drawing on Eastern influences.

These diverse gold leather shoes adopt motifs from other cultures, while their stylistic features and use of materials allow us to class them as Neoclassical or Art Deco.



[vi] Bally shoe, 1937
(Historical Archives of Bally Schuhfabriken AG; photo: Manuel Fabritz,
© Bally)

Innovations in Materials

As shown in the opening quotation from the *Neue Zürcher Zeitung*, not just gold leather, but a wide range of lustrous materials became fashionable in the 1930s. Some of these were natural fibres, such as silk. One typical material used in 1930s fashion was flowing silk satin, which would be cut on the bias to make garments with an especially close fit to cling to the wearer's body. Yet early cellulose-based synthetic fibres were also used during this period. The initial aim with synthetic fibres was to imitate natural materials, so these new fabrics were given names such as "artificial silk". The newly developed fabrics were made by dissolving and regenerating cellulose fibres. Company names such as Vereinigte Glanzstoff-Fabriken AG (United High-Gloss Fabric Manufacturers) show that the lustrous quality of these new materials was considered their defining feature. This particular company was originally founded in 1891 in Oberbruch bei Aachen as a light bulb manufacturer, since at that time light bulb filaments were made from synthetic fibres. However, the founders Fremery and Urban quickly switched focus to textile fibres and began to manufacture



[vii] Bally shoe, 1939

(Historical Archives of Bally Schuhfabriken AG; photo: Manuel Fabritz,
© Bally)

cuprammonium rayon, or cupro. This was primarily intended for decorative items such as ribbons and ruching, as it was not yet fine or tough enough to be used for other purposes.¹⁵ The viscose process was developed in England at around this time, and the Glanzstoff-Fabriken switched to this method in 1916, leaving the production of cupro to Bemberg AG, a manufacturer of women's lingerie and stockings.

Another example of a highly fashionable innovation in lustrous fabrics was lamé—a plain-woven material mainly used for evening wear that was made by adding flat metal threads to the warp or weft of the fabric. The 1940 *ABC der Kunstseiden und Zellwollen* (a guide on artificial silks and rayon fibres) states that “thin metallic threads laminated to cellophane are particularly well suited for producing lamé effects”.¹⁶ The same reference book describes cellophane (*Zellglas*) as “a generic name for transparent films produced through the viscose, cuprammonium, or cellulose acetate processes”. Then there is Lurex, which was invented by a British company and only came onto the market in 1946. Much like today, scientific and commercial innovation inspired and spurred design. Entirely new possibilities were offered by the development of nylon and Perlon,



[VIII] Salvatore Ferragamo, 1930

138 (Courtesy of the Museo Salvatore Ferragamo, Florence)

the first fully synthetic fibres. Nylon was first launched by DuPont at the 1939 New York World's Fair and revolutionized the stocking industry, along with many other sectors.

These new synthetic fibres were also used in shoes. In one of his sandals, Ferragamo combined gold and silver leathers with a Bakelite heel [FIG. IX]. After the start of the Second World War, *Bally* had to begin using new materials in place of leather. Examples of this include heels coated in celluloid and embossed with a lizard-skin pattern.¹⁷

Why did lustrous materials come into fashion during the period between the stock market crash of 1929 and the start of the Second World War in 1939? One reason was simply that technical innovations made the manufacture of these new fabrics possible. Another was that shiny materials remained desirable as an expression of wealth and prestige. In Irmgard Keun's novel *The Artificial Silk Girl*, first published in German in 1932 as *Das kunstseidene Mädchen*, the main character expresses her desire to rise through the ranks of society: "I want to shine. I want to be at the top. [...] With everyone respecting me because I shine."¹⁸ This yearning for glitz and glitter offered an alternative to an everyday existence dominated by the economic crisis.



[IX] Salvatore Ferragamo, 1939
(Courtesy of the Museo Salvatore Ferragamo, Florence)

Gold and Wealth in Cinema

Alongside photographs in fashion magazines such as *Vogue*, the film industry (especially Hollywood) also played an important role in the spread of glamorous fashions. Although still mostly shot in black and white,¹⁹ the movie—in essence a medium of projected light and light effects—helped propagate the use of eye-catching materials. When operating on a spectrum between black and white, it is important to enhance the white elements as much as possible. This is done with the help of high-gloss surfaces, which become even more prominent when in motion.

The movie *Gold Diggers of 1933* brings together gold, money, and fashion, with gold serving as both currency and ornament. The word “gold-digger” began to be used as early as the 1910s as a pejorative term for women whose romantic interests are motivated by a desire for money. The musical film, directed by Mervin LeRoy, was based on a 1919 stage play,²⁰ with the dance scenes choreographed by Busby Berkeley. During the musical number in the opening scene, a chorus line of women dressed in costumes made of coins perform before a backdrop of enormous coins, while Ginger Rogers sings “We’re in the Money”. At first, the dancers’ faces are hidden behind imitation dollar coins which themselves feature a portrait of a woman: the Liberty Head. These may have been based on the Eagle, a gold coin worth ten dollars that remained in circulation until 1933, although the silver Peace Dollar may also have been used as a model. With a black-and-white film, it is hard to tell whether we are looking at silver or gold—but as the song says: “With silver you can turn your dreams to gold.” An interlude of dancing is then followed by a kind of fashion show in which young women step through a glittering curtain adorned with a dollar sign, wearing various dresses made of high-gloss fabrics and decorated with coin motifs.

Here, the young women are not only dressed in gold coins—they transform themselves into currency, or are implied to do so. As they do so, the characters in the movie dream of finally getting rich. The motif of dancers dressed in gold coins has historical precedent in the belly dancers of the Algerian Ouled Nail tribe, who decorated themselves with coins as proof of the

wealth they had acquired through their dancing.²¹ These performers were very widely known around 1910 and may even have inspired the musical number in *Gold Diggers of 1933*.

As this movie shows, not only was gold valuable, but it was also very clearly associated with currency. This is demonstrated further by the gold standard, a system in which each country's money supply was linked to the quantity of gold it possessed, with the goal of stabilizing currencies and facilitating foreign exchange. The year 1929 nonetheless saw the start of the Great Depression, after which countries gradually began to abandon the gold standard, with the USA among the earliest to do so, in 1933. It was in this year that *Gold Diggers of 1933* was released, and its opening scene embodies a desire for money.

The trend for gold was not limited to the colour, but included gold coins too. "Antique gold jewellery from all eras—the bigger the better—and enormous coins [...] meet the demand for decorative effect,"²² wrote one correspondent for the *Neue Zürcher Zeitung* in 1937.

A variety of additional circumstances helped usher gold leather shoes into fashion during the 1930s. New technologies enabled the processing of real gold leaf, while new cellulose-based plastics made it possible to give even mass-market products a glamorous sheen. The economic pressures of the time meant that gold also became important in terms of its economic value, while influences from other cultures, such as Egypt, played a role too. As a visual effect and a symbol of glamour, glitter and gloss were a byproduct of photography and especially of motion pictures, where a superficial sheen represented a value that was absent from everyday life. Last but not least, however, there was also a very practical reason for wearing gold evening shoes: "Gold sandals have the advantage of matching clothes of any colour."²³

- 1 An earlier version of this text was published under the title "Schein und Wert. Goldleder als Material für Abendschuhe in den 1930er Jahren" in: Martin Scholz, Friedrich Weltzien (eds.): *Die Sprachen des Materials. Narrative – Theorien – Strategien*, Berlin 2016.
- 2 "Die Mode schliesst sich dem bewährten 'Ideal Gold' an. Auf dem Gipfelpunkt der Saison angelangt, tritt alles hinter Gold zurück. Überall wird

Goldschmuck zugezogen [...]. Goldene Sandalen haben den Vorzug zu jeder Kleiderfarbe getragen werden zu können. Sie werden vielfach aus Goldleder oder goldfarbenem Moiré, mit goldenen Pailletten bestickt, über hochfeinen, goldschimmernden Strümpfen getragen. Die abendliche Wirkung ist natürlich ausgezeichnet.“

- 3 See Tietze: “A Fairy-Tale Affair...!” in this volume, p. 155.
- 4 Wagner 2001, pp. 84–87.
- 5 Rübél/Wagner/Wolff 2005, p. 35.
- 6 materialachiv.ch (accessed 11.11.2019).
- 7 Heller 1989, p. 192.
- 8 Schulze 2011.
- 9 A modern version designed by Peter Behrens in 1902 for the arts and crafts exhibition in Turin can be found at the Museum für Kunst und Gewerbe in Hamburg.
- 10 Grassmann et al. 1936, pp. 251–252.
- 11 Ibid., p. 134.
- 12 Interview of the author with Mr. Deutschmann, 28 November 2018.
- 13 This would presumably have been aluminum.
- 14 Schäfer 2019. With thanks to Rosita Nenzo for pointing out this reference.
- 15 Bauer 1958, p. 48.
- 16 Arends 1940, p. 196.
- 17 F.S. 1941, p.1.
- 18 “Ich will so ein Glanz werden, der oben ist. [...] Und die Leute achten mich hoch, weil ich ein Glanz bin”; Keun 2004, p. 45.
- 19 The earliest Technicolor movies included titles such as *The Wizard of Oz* and *Gone with the Wind*, both released in 1939.
- 20 There had already been a *Gold Diggers* film in 1929, and the series was continued in 1935, 1937, and 1938.
- 21 With thanks to Rolf Sachsse for pointing out this reference. See also his captions in LVR-LandesMuseum Bonn: 1914. *Welt in Farbe. Farbfotografie vor dem Krieg*; Ostfildern 2013, p. 131.
- 22 “Antiker Goldschmuck aus allen Epochen, je umfangreicher desto begehrt, riesige Münzen [...] erfüllen die Anforderungen an dekorative Wirkungen”; *Neue Zürcher Zeitung*, 25 January 1937, p. 8.
- 23 Ibid.