Henna Mislabeling, Misinformation, and Disinformation

In the early twentieth century the term “henna” was applied to many hair dyes, whether or not the dye was actually henna; the word henna conveyed “safe” and “effective” during a time when early chemical hair dyes were haphazard and often dangerous.

One Pound Hopkins’ White Henna Compound (so called)
The Earth Contributes and J. L Hopkins & Co. Distributes Cosmetic Basic Materials
Manufactured only by J. L Hopkins & Co. Importers, Millers and Manufacturers New York NY.
Photographed with a spoonful of original contents.

Hopkins’ White Henna Compound, marketed in the 1920s and 1930s contained no henna whatsoever. The laboratory at Kent State University department of geology analyzed a sample of the contents of a box of ‘Hopkins’ White Henna Compound’ and found it to be hydromagnesite, hydrated magnesium carbonate mineral, Mg₅(CO₃)₄(OH)₂·4H₂O.¹ Hydromagnesite is normally used for whitewashing walls and fences.

Roherer included a formula for “white henna” which seems to have included Hopkins’ white henna or a similar product, in which he does not differentiate between henna, lawsonia inermis, and “white henna.”

¹ Smith, A. PhD, (2008) professor, Kent State University Department of Geology

“White Henna Formula

Henna powder – 1 ounce
Powdered citric acid – 1 dram
Sodium perborate – 4 oz
First wash the hair with a mixture of:
1 ounce of ammonia water (26%)
15 ounces of water
Then apply the henna as paste, like any other henna dye.”

Hopkins’ White Henna Compound, instructions for use on back of package

Oscar Levin MD reviewed the “white henna” product in 1928, “Shall I Dye My Hair.” His analysis was consistent with the laboratory analysis:

“Beware of Henna Compounds

“In speaking of henna, I might mention here that the so-called "white henna" is a misnomer. It contains no henna, but is rather a mixture of magnesium oxide and magnesium carbonate, made into a paste by mixing it with hydrogen peroxide, or

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2 Rohrer, J. (1924) *Rohrer’s Illustrated Book on Scientific Modern Beauty* Culture Prof. Rohrer’s Institute of Beauty Culture, NYC. NY. P. 24
3 Private collection, Catherine Cartwright-Jones PhD

peroxide and ammonia. One might just as well be using pure hydrogen peroxide, at a much cheaper price.”

The hydromagnesite and peroxide process was extremely damaging to hair. Peroxide bleached the melanin in the core of the hair and made the hair structure porous. The magnesium, applied as a pack, filled the pores left in the hair by the peroxide. Peroxide by itself dried the hair, magnesium would dry it more. The magnesium carbonate would make the hair as white as the lightest albino hair, as white as a white cat. The “white henna” product and technique was again described as harmful in 1938 in “The American Journal of Nursing.”

The title "peroxide blonde" has been more or less uncomplimentarily applied to those women who bleach their hair by means of some preparation releasing free oxygen. This has been done by preparing a solution consisting of peroxide of hydrogen to which a small amount of ordinary household ammonia has been added. Several rinses with such a substance will make the hair several shades lighter. The ammonia removes some of the natural oil from the scalp and hair and may cause the latter to become dry and lustreless, and even to break off or to fall out. There has been a tendency, of late, to employ a stronger substance such as sodium perborate. Again, the hair may be injured if the solution is too strong. The so-called "white henna" is made from hydrogen peroxide, ammonia, and magnesium carbonate. It has the same defects as those already mentioned.”

In 1939, Regrove described “white henna” as different from henna,

“When used alone, henna produces only auburn. It is, therefore, generally employed in combination with other dyes. … It may, however, here be added that of the many such preparations now on the market, some would appear to owe their efficacy to as dyes mainly to the other ingredients, including the dangerous dye para-phenylenediamine. Indeed, there is an unfortunate and misleading tendency to use the word “henna,” because of the known harmlessness of the material, as a pleasing term for any hair dye.

“The height of absurdity was reached when, a few years ago, “white henna” made its appearance on the market. “White henna” is a euphemism for a hair bleach to be applied in pack form. For example, such a bleach can be made by mixing 6 to 7 parts of magnesium carbonate with 4 to 3 parts of sodium perborate; but the action of such a bleach is apt to be more drastic than that of hydrogen peroxide owing to the high degree of alkalinity produced on addition of water.”


Jean Harlow’s hairdresser, Alfred Pagano said that he used peroxide, ammonia, and Lux flakes⁷ to bleach her hair. Based on the time period and the visual characteristics of her trademark platinum blonde hair, he may have also used “white henna” to achieve the final color. Her hair became brittle, fragile, and broken with the weekly treatments. By 1936, her hair had broken and fallen out to such an extent that she wore wigs.

Right: Jean Harlow (born Harlean Harlow Carpenter; March 3, 1911 – June 7, 1937) protege of Howard Hughes.

Harlow's white shade resembled the hair color of albinos, considered freaks in that day and thus objects for sexual fetishization, a film trope connecting albino white hair to perverse sexuality⁸ as opposed to other shades of blonde hair used to portray child-like innocence. When actresses were required to have platinum hair for an erotic role but did not want to have their hair destroyed by “white henna”, they requested wigs. “Natasha Rambova wore a platinum wig as “Salome” in the film version of Wilde's Salome (1923). Greta Garbo, Anna Nielsen wore a platinum wig, playing a brothel madam, and so did Pola Negri in “Three Sinners” (1928). In early scenes of “As You Desire Me” (1932), Greta Garbo, playing a decadent cabaret performer, wore a platinum wig, as did Marlene Dietrich in “Blonde Venus” (1932), when she emerged from a gorilla suit.”⁹

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⁷ Orci, T. (February 22, 2013) “The Original 'Blonde Bombshell' Used Actual Bleach on Her Head” The Atlantic

The ‘white henna’ process did not disappear after Jean Harlow, though many other actresses bleached their hair nearly white without an added mineral pack. ‘Candy Darling’, a protégé of Andy Warhol, memorialized in Lou Reed’s “Walk on the Wild Side,”\textsuperscript{10} repeated the technique in\textsuperscript{11} the late 1960’s.

Candy Darling, (born James L. Slattery, November 24, 1944 – March 21, 1974) Protégé of Andy Warhol

10 Reed, L. (1972) “Walk on the Wild Side” \textit{Transformer}

“I myself hit the Stonewall a few times back in the early days with a brownette, pointy-toothed Candy Darling. This was before he/she was given a makeover by the flamboyant Off Off Broadway theater director Ron Link, who taught Candy how to do her makeup in 1930s movie-star style.

“The newly glamorized Candy was presented in a show written by Jackie Curtis at Bastiano’s Cellar Studio Theater in the Village called “Glamour, Glory and Gold,” which featured in his first stage role a young actor named Robert De Niro. For the Candy transformation, Link got out a white henna powder concoction that, when mixed with peroxide and pure ammonia and applied to dark hair, turned it platinum-white blonde, thus changing a drab Candy into a Kim Novak/Jean Harlow blonde bombshell.”

“Ancient Sunrise® Henna for Hair” Chapter 3, part 2, Copyright © 2018, Catherine Cartwright-Jones PhD, TapDancing Lizard® LLC \url{www.mehandi.com} \url{www.hennaforhair.com} \url{www.ancientsunrise.com}
How Pure Egyptian Henna Became Nestle “Not Henna”

Left: Egyptian Henna For Tinting The Hair A Titian Red, V. Vivaoudou. Inc. 2 ¼ oz. New York, approximately 1930, author’s collection
Right: Instructions for Egyptian Henna distributed by V. Vivaoudou

Vivaoudou henna\textsuperscript{12} was a popular henna product registered in commercial use in 1926. “Consumers Union Reports,” Volume 5, Issue 12, listed it as pure henna, and harmless. The trademark with an image of a woman with the Egyptian vulture crown\textsuperscript{13} was filed at the end of that year. Subsequently, Riker Laboratories\textsuperscript{14} marketed “Egyptian Henna for Tinting the Hair A Titian Red” under their own company name with a similar but slightly updated trademark.

\textsuperscript{13} The vulture crown was an ancient Egyptian crown worn by royal wives, a symbol of protection from the goddess Nekhbet.
\textsuperscript{14} Riker Laboratories, Division of United Drug Company, Boston, USA

The instructions were consistent with Redgrove’s recommendation for henna mixing, “The preferred method, whether henna is used alone or in combination with other dyes, is the cataplasm or pack method.” The rinses recommended were probably meant to compensate for the fact that short-duration hot packs create a stain that fades, so must be refreshed regularly.

Left: Egyptian Henna for tinting the hair a Titian Red, Riker Laboratories, a division of United Drug Co., Boston, USA, Net weight 3.5 g

Right: Directions: To tint the hair auburn or titian red, first shampoo thoroughly to remove oil, rinse well, and partially dry. Make a thick paste of the henna powder with hot water, divide hair into strands, and anoint freely with the paste. Rinse hair thoroughly after the desired depth of color is obtained.

Henna, both henna-rasticks, and henna-rengs were not a particular problem for the invention of “Marcelling,” a ‘hot tongs’ method of crimping hair into waves. François Marcel Woelfflé, later François Marcel, patented his instruments for the techniques as "Curling-Iron" in 1905 and the "Hair-Waving Iron" in 1918. Henna stains typically darken with heat, but the hair is not otherwise damaged. The henna-rastic (with metallic salts and pyrogallol) did not interfere with heat, nor did the henna-reng (henna and indigo).

The development of chemical solution permanent waving, commonly called a perm or "permanent", involved the use of reagent chemicals with or without heat to break and reform the

cross-linking bonds of the hair structure. The chemicals used in permanent wave solution cross-reacted with the metallic salts in compound henna.

Left: Magazine advertisement for Egyptian Henna, V. Vivaudou, early 1920s
Right: Madame William Randolph Hearst (Marion Davies) by Erté early 1920s, with permed, hennaed hair

Advertising text from V. Vivaudou Egyptian Henna above, “Nowadays the youthful simplicity of hair arrangement requires that it be natural, colorful and lustrous. If sitting bareheaded on the beach has made your hair sun-streaked, or if it has become drab, faded, or gray, use Egyptian Henna to give it new life and lustre, or to restore the auburn shade. And if you’ve acquired curly locks via the “permanent” method, you’ll be glad to know that this Egyptian Henna (unlike others) will take a permanent beautifully.”

Hair dyed with pure henna or a henna-reng could be permed into fashionable curls, and Vivaudou Egyptian Henna was promoted as being suitable for use with perm solution. The advertisement above advertisement indicates that people understood that there were some products sold as ‘henna’ containing mineral salts (compound henna or henna-rasticks) that were unsuitable for use with permanent wave solutions. Redgrove explained,

16 Author’s collection, Catherine Cartwright-Jones PhD.
17 Author’s collection, Catherine Cartwright-Jones PhD.
“Speaking generally, dyeing with henna-rasticks is simpler than dyeing with henna-reng. Hair so dyed, however, can be permanent waved only with considerable difficulty.

“This is due to the loss of that instability in the polypeptide chains of the hair keratins which is essential to the process of permanent waving. It has been shown that the chief linkages in the chains which are involved in permanent waving are the cystine and cysteine linkages. These contain practically all of the hair’s sulphur content. The metallic dyes, however, react with the sulphur of these linkages to produce sulphides and metallic sulphide complexes. And in proportion as the cystine and cysteine are decomposed by the metallic salts, so does the hair lose its ability to be permanently waved.”

Madame William Randolph Hearst (Marion Davies) by Erte, early 1920’s, with permed, hennaed hair, detail

In 1971, the Nestle-Le Mur Company bought the rights to the Egyptian Henna trademark from Rikker Laboratories, and continued using the Egyptian inspired pattern motifs and the woman with the vulture crown. Joseph Lindemann was the pharmaceuticals manufacturer who established Nestle-Le Mur Company and produced Nestle® Egyptian Henna.

18 Rohrer, J. (1924) Rohrer’s Illustrated Book on Scientific Modern Beauty Culture Prof. Rohrer’s Institute of Beauty Culture, NYC. NY. P. 80
Magazine advertisements from the early 1970’s for Nestle® “The Original” Egyptian Henna products.²⁰

The Nestle-Le Mur Company developed a number of products marketed under the brand Nestle Egyptian Henna: Nestle® Egyptian Henna Conditioning Shampoo, Nestle® Egyptian Henna Pre-Mixed Hair Conditioner, Nestle Egyptian Henna Intensive Hair Conditioner, Nestle Egyptian Henna Hot Oil Shampoo enriched with “Pearls of Beauty,” and Nestle Egyptian Henna Hot Oil

²⁰ Author’s collection, Catherine Cartwright-Jones PhD

Treatment. Though all of these were advertised as Original Egyptian Henna; none of these contained any appreciable amount of henna, and probably no henna whatsoever. They were described as being Neutral, none added color to hair.

The Nestle-Le Mur Company did manufacture a henna product that seems to have been largely henna, based on residue in original packages.

Nestle® Egyptian Henna, metal container front and side, 1970’s, author’s collection

Nestle® Egyptian Henna package, ingredient declaration and USFDA compliant warning, 1970s

21 Author’s note: I have not been able to locate an original item, nor an ingredient declaration for the Nestle® Egyptian Henna Conditioning Shampoo, Nestle® Egyptian Henna Pre-Mixed Hair Conditioner, Nestle® Egyptian Henna Intensive Hair Conditioner, Nestle Egyptian Henna Hot Oil Shampoo enriched with “Pearls of Beauty”, or Nestle® Egyptian Henna Hot Oil Treatment.

22 Author’s private collection, Catherine Cartwright-Jones PhD
The instructions:

“HENNA PACK: Adds permanent color as it conditions. TO USE: Shampoo, towel dry. Wear plastic gloves, empty contents of can into glass bowl, add enough hot water to make a thick paste. Stir until smooth. Star at top, part hair. With small brush apply the hot paste to hair roots on both sides of part, then work into hair. For Light Brown hair, leave on 10 – 20 minutes; for Dark Hair, 30 – 60 minutes using strand test as a guide. Remove with warm water. Shampoo, rinse thoroughly. For touch up on new growth, apply Henna paste to roots only. To keep color fresh looking, use a henna rinse. HENNA CONDITIONING RINSE: Adds exciting highlights, shine and body. Hair looks and feels thicker and fuller. TO USE: Shampoo hair. Dissolve 3 tsp of henna in 1 quart of hot water, then pour through hair 3 or 4 times. Leave on hair 10 minutes, rinse with warm water. CONTAINS: ONE PACK OR, TEN RINSES (package contains 2 ¾ oz.)”

The instructions are consistent with the henna product having unlisted additives, based on the brief application time and small proportion of powder. The recommendation of a henna rinse indicates that the result of this hot water method was prone to fading. The admonition against using the product on straightened or permanent waved hair, and that it was not recommended for gray, blonde, or bleached further support the interpretation that this was not pure henna.

Any pure henna prepared with hot water and applied for a brief period, as is recommended in henna instructions through the mid 20th century gives a brassy color to pale hair which will fade over time. A the hot mix prevents the aglycones from forming and binding with keratin with a Michael addition. It is unknown whether the hot water method was recommended for speed and efficiency or to sell more henna to be used in the constant rinses necessary for color refreshing.

In addition to this auburn or Titian henna, Nestle-LeMur developed “Neutral Henna,” “Black Henna,” and “Brown Henna” products, which, despite their branding, contained very little henna. It is difficult to say whether the branding, “Egyptian Henna,” with the woman with the vulture crown, used for decades for a pure henna product was a deliberate attempt to play upon the public’s ignorance and to mislead them about the henna content, and the nature of henna.


Whether or not the intention of this labeling of these products was meant to be deceptive, it had the effect of contributing to the misinformation about henna.

Nestle® Egyptian Henna, neutral, for black hair, and for brown hair, marketed by Nestle-LeMur in the 1970’s

Ingredient and description of product, Nestle® Egyptian Henna Neutral (Colorless) Henna

As an explanation of these ingredient declarations: ingredients are required to be in descending order of quantity in the product formulation. In each of these, henna is last or next to last in the declarations, so a proportionally small amount of henna has been mixed into thickeners and surfactants. Lactose is milk sugar. Corn starch is a flow agent in powdered products. Methyl cellulose is a thickener. Quaternium-5 is a quaternary ammonium salt used as a surfactant. Those were the primary ingredients; henna was not. Nestle had figured out how much they could dilute the henna, still get some color, and not immediately drip down someone's back. Despite the
branding, this product had very little henna, added no color to hair, and was used as a sort of ‘mix up and shampoo in conditioner’.

Nestle® Egyptian Henna for Black Hair ingredient declaration: Lactose, Corn Starch, Hydroxypropyl Methyl Cellulose, Quaternium-5, Henna, Iron Oxides.

Nestle® Egyptian Henna for Brown Hair ingredient declaration: Lactose, Corn Starch, Hydroxypropyl Methyl Cellulose, Quaternium-5, Henna, Iron Oxide.

The Nestle® Egyptian Henna for Brown Hair and Black Hair were also powdered mixtures meant to disperse a very small amount of henna with some iron oxide into water to be shampooed into hair. The product was harmless and did not interfere with oxidative dyes or perm solutions. Any color from the henna and iron oxide would have been very temporary. The company was sold in 1983 and Mr. Lindemann died in 1985.

An article in the New York Times, “All About: Henna, for Hair with a Shine” in January of 1977 provides insight into mid-century misconceptions about henna, what sources were spreading misinformation, why stylists were persuaded by the chemical hair dye companies to distrust henna and how this disinformation proliferated into public consciousness in general, and among stylists in particular.

By the mid-1970s the henna brands generally available in the USA were Colora, Hopkins, Hennalucent, Rainbow Research, and Nestle-Le Mur. Though each of these brands had at least one henna product that was mostly henna, all of these brands sold products with various ‘colors’

24 Capek, K. Chemist, member of the Society of Cosmetic Chemists

of henna. The other colors were formulated other dye plants, metallic salts, or other dyes to create these colors, and these were rarely declared.

Clairol issued a statement on henna, “It is difficult for a company like ours to get involved in it,” said Dr. John Menkart, vice president for technology. “We can't control it.” Also, “Used on very light or gray hair, it can give a miserable orange color. It can be horrendous on bleached hair. Hair that has had a permanent wave is more absorbent and henna can produce undesired effects. Rinsing out the goop is a difficult job, if you don't rinse properly, you have a mess.” Menkart of Clairol either did not understand the chemistry of henna and how to use it, or he chose disregard it. Or, he wanted to cast aspersions on henna so that people would be misinformed and cease to use henna rather than Clairol’s highly profitable home hair oxidative dye kits brought onto the market in 1955.

Other spokespersons for Clairol and the oxidative hair dye industry continued to repeat the corporate line and disinformation. Leslie Blanchard, a top New York colorist, a consultant to Clairol, stated, “As a colorist, I have to think of the negative aspects,” he said. “Henna is difficult to control, I can't be sure of the color I'm going to get. With regular coloring products, you can compensate for permanents or species hair conditions. You can't get shading with henna. It stains the hair and is difficult to remove. If you don't like the color, you have to wait months for it to wear off. You can't always change it by putting a chemical dye over it.” Leslie’s concerns were problems with compound henna, not pure henna, and he either did not know the difference between compound and pure henna, or the product with mislabeling prevented him from knowing, or he chose to misinform people based on the Clairol corporate statement on henna.

Small importers, people who had migrated from countries where henna had been used for centuries wanted to import, develop and promote henna. Meir Wersavik, who, with his wife, owned Les Cheveaux Vixi in Scarsdale, N.Y. The Wersaviks were Israeli, and had a reliable henna exporter in Tehran, and were exploring opening a henna distributorship in the USA. Iran

26 Ibid
27 Ibid
28 Author’s collection, acquired from Katrin Alekand, Estonia.

had a well-developed henna industry and supplied henna to Russia and Eastern Europe for centuries, but the Iranian revolution in Jan. 16, 1979, limited that opportunity in the USA. French-born Jacques Siboni, used henna in his Monsieur Jacques salon at 45 West 55th Street, New York, NY. He was familiar with henna from living and working Morocco. He purchased Moroccan henna for his salon from a small importer, and formulated his dyes from “red, black, and neutral hennas,” which he recognized by smell. These were, of course, not all henna.

These would have been henna, indigo, and cassia obovata which have a very similar appearance, but which have distinct smells. All of these dye plants were imported as red, black, and neutral henna without specification of the plant species until recently. Because the FDA allowed henna to be imported exempt from certification, it was simpler to bring these products in under the name ‘henna,’ hoping that the product would never have a microscopy, HPLC, or DNA analysis.

Wersavik passed on crucial disinformation about the products known as red, black, and neutral henna to Talorjan, who disseminated this as received truth to the readership of the New York Times, “(Wersavik) took the visitor into the salon storeroom and opened three drums of henna. Red henna—actually a mustard color in its powdered form—comes from the leaves of the plant, he said, and, imparts the lighter red colors. Black henna (light green in powder) comes from the roots of the plant; is used on dark hair for deep tones, and is sometimes mixed with strong coffee to darken it further. Then there is neutral henna (it looks like fine sand) which is made from the plant stems and gives no color, but adds shine and body to the hair.”

Wersavik’s statements were botanic nonsense. It cannot be determined whether this was meant to deliberately misinform and confuse customers (and the author of the New York Times article), or whether this was simply a widespread fiction spread by the henna industry to protect itself from competition.

IN 1977, the US Food and Drug Administration’s policing of henna imports was limited to spot-checking according to the director of the division of cosmetics technology, Hans Eierman. Henna was granted a permanent exemption from certification for use as a hair dye in the 1930’s because of its record of safety and reliability. Either the FDA was not concerned about the fiction of “black henna, brown henna, and neutral henna,” or perhaps the exact contents were unknown to them.

Stylists knew that there was a problem with products labeled as henna. A chemist who tested the henna products found as little as 20 percent henna in them. Stylists who used compound henna products with undeclared contents experienced the consequences: adulterated henna would
inexplicably give green results, hideously orange results, and might damage or destroy hair when applied over or under oxidative dyes, bleaches, and perm solution. The lack of transparency in the henna business and widespread misinformation about contents and methods led to most stylists responding to henna with revulsion. If there had been complete ingredient declaration of henna products as they evolved from henna to henna-rasticks to henna-rengs and further, henna might have retained its trust and respect among stylists and clients and remained a viable alternative to oxidative hair dyes in the marketplace.