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Lost & Found: Intellectual Property of the
Fragrance Industry; From Trade Secret to
Trade Dress

Charles Cronin*

*USC Gould School of Law, ccronin@law.usc.edu

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Lost & Found: Intellectual Property of the Fragrance Industry; From Trade Secret to Trade Dress

Charles Cronin

Abstract

The foundations of the modern fragrance industry can be traced to fragrance producers established in the south of France during the sixteenth century. Through the nineteenth century, French flower farms, essential oil extractors, and manufacturers of branded fragrances, were family enterprises, and it was relatively easy for these businesses to maintain proprietary information about distillation techniques, the composition of branded perfumes, etc.

The inexorable consolidation in the fragrance manufacturing industry over the past century has resulted in an industry now dominated by a handful of large fragrance multinationals that are increasingly vulnerable to misappropriation of their intellectual property, and particularly of their fragrance formulas developed at significant expense. The itinerancy of perfumers today has engendered unease among these fragrance houses as to the security of their most valuable assets: formulas and other trade secrets that can now be readily obtained, copied, and shared by employees with access to relevant information stored on the company's servers.

Even more disconcerting today to the fragrance industry is the potential of analytic technologies to reveal the chemical composition of fragrances. Unlike digital technologies that have similarly discombobulated the media industry because they enable surreptitious copyright infringement, chemical analytic technologies do not enable the illegal acquisition or distribution of intellectual property. In fact it is generally lawful not only to use these technologies to obtain the fragrance formulas of competitors, but also to use the acquired information to develop competing products.

Concurrent with the erosion of the fragrance industry's trade secrets has been the increasingly widespread deployment of fragrances as a component of multi-sensory trade dress used to brand a wide range of commercial spaces including retail stores, cinemas, hotels, etc. This article proposes that while trade secrets underlying the creation of fragrances have lost much of their efficacy, trademark and unfair competition law may offer a hitherto mostly unrealized legal protection of the deployment of fragrances as trade dress. After considering the limited efficacy of copyright and patent protection for fragrances the article canvasses the growing use of fragrance as a component of trade dress, and the potential legal protection, and financial implications, of trademark and unfair competition law.

LOST & FOUND:
INTELLECTUAL PROPERTY OF THE FRAGRANCE INDUSTRY;
FROM TRADE SECRET TO TRADE DRESS

Charles Cronin *

I. INTRODUCTION

Liqueur

In the eleventh century, on a mountainside north of Grenoble, Saint Bruno of Cologne established the Carthusian monastic order.¹ The remote and elevated location of the Grande Chartreuse, the order's "mother house", not only spared the monks contact with materialist humanity living in the cities below, but also provided physical proximity to heaven. The region's harsh climate, however, accommodated the cultivation of few crops other than those of medicinal herbs. *Faute de mieux*, the Carthusians grew herbs that they eventually used in manufacturing the "elixir" that in the eighteenth century they began to distribute beyond the monastery as "Chartreuse".²

In 1903 the French government appropriated the Grande Chartreuse, and the monks were exiled to Tarragona, Spain where they reestablished their eponymous liqueur manufactory.³ The French government sold the monks' distillery at the Grand Chartreuse, along with the Chartreuse trademark, to a group of private investors.⁴ These buyers attempted to produce the monks' cordial that they sold as "Chartreuse". Meanwhile, the Carthusians in Spain continued to produce their original liqueur that they then called "Tarragone" because the French government forbade their use of the trademark "Chartreuse" on products sold in France.⁵

In a demonstration of divine justice, the "new" Chartreuse failed utterly in the market because its makers were unable to determine the complex formula that the Carthusians were careful to leave no trace of when they were expelled from France. Accordingly,

* Bona fides & acknowledgements, ccronin@law.usc.edu

¹ See André Ravier, SAINT BRUNO, THE CARTHUSIAN (1995).

² See *La vallée du secret*, VSD MAGAZINE (No. 1920, June 18, 2014).

³ Their expulsion appears to have been motivated by the French government's resentment of the order's financial prosperity. See *France Banishes Carthusian Monks*, N.Y. TIMES, March 27, 1903, at 3.

⁴ See History of the Chartreuse Liqueurs, <http://www.chartreuse.fr/en/histoire/history-of-the-chartreuse-liqueurs/>.

⁵ See *id.*

until 1929, when the trademark “Chartreuse” was restored to the Carthusians, those drinking Chartreuse in cafes and restaurants in France would order “a Tarragone”.⁶

Carthusian monks avow a life of silence, which is spent at one monastery.⁷ Many aspects of their life are hermetic, but the Carthusians are a coenobitic order in which all monks work for the communal good, with no ambition for personal financial gain.⁸ Only two monks know the formula for Chartreuse at any time.⁹ Like wine, Chartreuse is a volatile drink, the quality of which improves over time.¹⁰ Accordingly, even if one successfully reverse engineered the molecular composition of Chartreuse, one would need also to discover the techniques by which to nurse the liqueur to maturity over many years, to match the quality of that of the monks’. Moreover, there are over 100 ingredients in Chartreuse, many of which are sourced from the monastery’s herb farm.¹¹ Today the Carthusians thrive at the Grand Chartreuse, thanks, in part, to their effective maintenance of the centuries-old trade secret by which they manufacture their profitable liqueur.¹²

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Porcelain

After Vasco da Gama discovered a sea route between Europe and the Orient in the late-fifteenth century, Europeans began to collect Chinese porcelain.¹³ As porcelain became popular in Europe, huge quantities were obtained at great cost from China because Europeans did not possess the information needed to manufacture it.¹⁴

Early in the eighteenth century Johann Böttiger, an “alchemist” working for the Saxon king in Meissen, discovered how to make porcelain.¹⁵ Given the relatively rudimentary

⁶ *Id.*

⁷ See The Carthusian Order, <http://www.chartreux.org/en/>.

⁸ *Id.*

⁹ See History of the Chartreuse Liqueurs, *supra* note XX. Distribution of the recipe for Coca-Cola is purportedly similarly limited. See Martin Lindstrom, BRAND SENSE: BUILD POWERFUL BRANDS THROUGH TOUCH, TASTE, SMELL, SIGHT, AND SOUND 191 (2005) (“as the story goes, in the entire history of the company only eight people in total have known it, and only two of them are still alive”).

¹⁰ See History of the Chartreuse Liqueurs, *supra* note XX.

¹¹ *Id.* Over time there have been a number of attempts to market counterfeit Chartreuse, the bottles of which are displayed at the museum of the Caves de la Chartreuse in Voiron, located near La Grande Chartreuse.

¹² See generally, *Into Great Silence* (Zeitgeist Films, 2005).

¹³ See Janet Gleeson, THE ARCANUM 43 (1998).

¹⁴ See *id.* at 45 (noting porcelain’s imperviousness to the water damage that threatened other luxuries like tea, silk, and spices shipped from the Orient).

¹⁵ *Id.* at 56.

understanding at the time of chemistry and materials engineering, Böttiger could not simply reverse engineer a piece of Chinese porcelain. Nor could he illicitly obtain information from Chinese porcelain manufacturers by spying on their activities or bribing perfidious Chinese workers living thousands of miles from him.

Having discovered, through years of trial and error, how to manufacture porcelain, Böttiger relocated his workshop to Albrechtsberg Castle in Meissen.¹⁶ Albrechtsberg was built in the fifteenth century atop a high hill that offered an effective defensive position against potential foes below. Its situation also protected Böttiger's trade secrets from the predacious eyes of competitors who prowled the streets of Meissen after learning of his discovery.¹⁷

Despite Böttiger's precautions, his secrets of the materials and manufacturing techniques for porcelain were appropriated, and widely disseminated, within decades of his breakthrough.¹⁸ Böttiger's motley crew of laborers, artists, and chemists were notoriously disloyal, tempted by potential financial windfalls from disclosing his secrets, or by establishing competing enterprises implementing them.¹⁹

Moreover, the manufacture of Böttiger's porcelain depended upon a rare white clay called kaolin, available at the time from a sole provider in the Saxon town of Aue.²⁰ When the Aue clay merchant realized that Böttiger no longer monopolized porcelain manufacture, he increased the price for clay that he charged Böttiger.²¹ He also began to sell his clay to Böttiger's competitors, despite the fact that he was contractually bound to supply only Böttiger's enterprise.²²

Despite the loss of its most precious asset, i.e. the method of porcelain manufacturing, Böttiger's porcelain factory still survives as "Meissen Couture" a state-owned luxury products manufacturer and retailer that sells an enormous range of products ranging from

¹⁶ *Id.* at 69.

¹⁷ See text panels for exhibition: *The Arnhold Collection of Meissen Porcelain, 1710 – 50* (Frick Collection, 2008) (copy on file with author). I am grateful to Frick curator Charlotte Vignon who kindly provided me a copy of these text panels.

¹⁸ See Gleeson, *supra* note XX at 295 (noting how "the efforts of discontented employees and wandering arcanists had demolished its monopoly and spread the secret arcanum for porcelain far and wide").

¹⁹ *Id.* In the eighteenth century the nation we now call Germany was comprised of many independent states like Saxony, Bavaria, and Württemberg. Each state had its own legal regime and there was little chance of being prosecuted for a malfeasance like trade secret misappropriation outside the jurisdiction of the owner of the trade secret. See generally, James Sheehan, *GERMAN HISTORY, 1770 – 1866* (1989).

²⁰ See Gleeson, *supra* note XX, at 106.

²¹ *Id.* at 109.

²² *Id.*

porcelain to clothing to furniture.²³ This diversification was essential for the survival of the enterprise. It was made possible, however, only by associating thousands of unrelated products to the porcelain for which the company is renowned.²⁴ All Meissen products are branded with the image of crossed swords with which the company has marked its porcelain since the 1720s.

∞

Perfume

The foundations of the modern fragrance industry can be traced to fragrance producers established in the south of France during the sixteenth century.²⁵ France's Mediterranean coast offers excellent conditions for cultivating plants whose flowers, fruit, stems, and roots are used to produce fragrances.²⁶ For centuries fragrance manufacturers located themselves near growers in order to obtain and process the plant materials as soon as possible after their harvest.²⁷ By the nineteenth century many of the essences produced by these manufacturers were shipped to Paris to be purchased by hundreds of small perfume houses there that mixed them and sold the compounds in branded retail products like fine fragrances, soaps, and cosmetics.²⁸

Throughout the nineteenth century, the farms, essential oil producers, and manufacturers of branded fragrances, were family enterprises.²⁹ With small staffs often comprised of related individuals who spent their entire careers with the same firm, it was relatively easy for these businesses to maintain proprietary information about distillation techniques, the composition of branded perfumes, etc.

During the twentieth century the fragrance industry underwent radical changes. Increasing real estate values in the area of Grasse coupled with rising labor costs prompted the sale of land once used to cultivate jasmine and other flowers, for more profitable uses like condominium developments.³⁰ Today most of the crops used in

²³ See Meissen Couture, <http://www.meissen.com/en/world-meissen-couture/maison-meissen-couture/our-famous-brand>.

²⁴ *Id.* Martin Lindstrom refers to this association as the “Organizational Selling Proposition” in which not a physical product, but rather “the organization or corporation behind the brand in fact became the brand.” See Lindstrom, *supra* note XX at 4.

²⁵ See Richard Stamelman, *PERFUME: JOY, OBSESSION SCANDAL SIN; A CULTURAL HISTORY OF FRAGRANCE FROM 1750 TO THE PRESENT* 94 (2006).

²⁶ *Id.*

²⁷ See Eugénie Briot, *From Industry to Luxury: French Perfume in the Nineteenth Century*, 85 *BUS. HIST. REV.* 273, 277 (2011).

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.* The small city of Grasse is situated a few miles north of Cannes on the Ligurian sea.

fragrance manufacture are grown and processed in countries like Algeria and India where land and labor are cheap.³¹

Most of the small perfumeries in Paris have similarly disappeared or were consolidated, and by the end of the twentieth century five fragrance and flavor companies – none of them French – had come to supply over half of the world fragrance market.³² Whereas the perfumeries in Paris in the nineteenth century created their own proprietary blends to which they affixed their brands, today most perfumes, and virtually all fragrances used to scent consumer products, are developed and manufactured by a few large corporations that have thousands of employees apiece, deployed at branches all over the world.³³

The inexorable consolidation in the fragrance manufacturing industry over the past century has made the remaining fragrance houses more vulnerable to misappropriation of their intellectual property, and particularly of fragrance formulas that they develop at significant expense. Members of the close-knit cadres of the small fragrance houses of the nineteenth century worked – like Carthusian monks – in one location, and on behalf of one enterprise, their entire career. Today, perfumers, like professionals in other high technology industries, commonly change not only their locations, but also their employers. This itinerancy has engendered an element of unease among fragrance houses as to the security of their most valuable assets: formulas and other trade secrets that can now be readily obtained, copied, and shared by employees with access to relevant information stored on the company's servers.³⁴

Another late-twentieth-century development that has unnerved fragrance manufacturers is the constantly improving accuracy of analytic technologies in revealing the chemical composition of fragrances. Unlike digital technologies that have similarly discombobulated the media industry because they enable surreptitious copyright infringement, chemical analytic technologies do not enable the illegal acquisition or distribution of intellectual property. It is generally considered lawful not only to use these technologies to obtain the fragrance formulas of competitors but also to use the acquired information to develop competing products.³⁵

In short, the fragrance industry now faces a dilemma similar to that that confronting the Meissen porcelain business 250 years ago when Böttiger's trade secrets were lost through breaches of physical security measures, and collegial disloyalty. Despite the loss of its greatest asset, however, Meissen survived not only by diversifying its merchandise, but

³¹ See Stamelman, *supra* note XX, at 95 (noting that the production of jasmine in Grasse peaked in the 1920s and 1930s but subsequently declined dramatically).

³² See Leffingwell & Associates, 2010 – 2014 Flavor and Fragrance Industry Leaders, http://www.leffingwell.com/top_10.htm.

³³ See *id.*

³⁴ See *infra*, text accompanying note XX.

³⁵ See *infra*, text accompanying note XX.

also by invigilating over another significant intellectual property asset it has never lost, namely the crossed swords mark with which it has always branded its goods.³⁶

Like the secrets of porcelain manufacture, those used to create fragrances have been revealed, or are increasingly vulnerable to discovery, through reverse engineering and disclosure regulation.³⁷ Meanwhile, fragrances are increasingly being used as a component of trade dress branding goods and services.³⁸ In this article I propose that while trade secrets used to *create* fragrances have lost much of their efficacy, trademark and unfair competition law may offer mostly unrealized legal protection of the *use* of fragrances as trade dress.

The following discussion first chronicles how reverse engineering has undermined the fragrance industry's reliance, from time immemorial, on secrecy to protect its intellectual property. Then it considers the limited efficacy of copyright and patent protection for fragrances. The balance of the article canvasses the growing practice of using of fragrance as a component of multisensory trade dress, and the potential legal protection of such uses through trademark and unfair competition law.

II. The Fragrance Industry and the Challenge of Reverse Engineering

Regulation of Reverse Engineering in the United States and the European Union

To obtain legal protection as a trade secret, information must be: commercially valuable; not generally known; and subject to reasonable efforts to maintain its secrecy.³⁹ While trade secrets in the United States are not broadly protected under federal statute, they are regarded as intellectual property alongside information protected by patents, copyrights, and trademarks.⁴⁰ The recently proposed European Union Trade Secrets Directive, on the

³⁶ See Meissen Couture, *supra* note XX

³⁷ See *infra*, text accompanying note XX.

³⁸ See *infra*, text accompanying note XX.

³⁹ See Uniform Law Commission, *Uniform Trade Secrets Act with 1985 Amendments*, 14 U.L.A. 433 (1990). This Act has now been adopted by 47 of the United States. See Uniform Law Commission, *Legislative Fact Sheet – Trade Secrets Act*, <http://www.uniformlaws.org/LegislativeFactSheet.aspx?title=Trade%20Secrets%20Act>. The same criteria define trade secrets in the pending European Union trade secret legislation. See *Commission Proposal for a Directive of the European Parliament and of the Council on the Protection of Undisclosed Know-how and Business Information (Trade Secrets) Against their Unlawful Acquisition, Use and Disclosure*, COM (2013) 813 final (Nov. 28, 2013).

⁴⁰ The U.S. Economic Espionage Act criminalizes the misappropriation of trade secrets on behalf of a foreign government. See 18 U.S.C. §§1831- 1839 (2012). In 2015, for the third time, U.S. legislators have introduced a bill that would allow civil trade secret claims to be brought in federal court. See *Defend Trade Secrets Act of 2015*, S. ____, 114th Cong. (2015). The United States Patent & Trademark Office identifies trade secrets as “a fourth type of intellectual property, in addition to patents, trademarks, and copyrights.”

other hand, suggests that trade secrets, while intellectual “assets”, should not be protected as “formal” intellectual property rights like patents, etc., but rather as a “complement” or “alternative” to these “classical IP rights.”⁴¹

Owners of patents, copyrights, and trademarks are provided broad rights to prohibit most unauthorized uses of their protected intellectual property.⁴² Owners of trade secrets, on the other hand, are given a less absolute privilege. While trade secrets may be protected indefinitely, a second comer may legitimately independently develop and apply the know-how earlier discovered by another. More significantly, however, is the fact that a second comer may legally acquire proprietary business information by analyzing the composition of a legally manufactured and obtained object that implements a trade secret.⁴³

A trade secret’s vulnerability to reverse engineering depends on both the complexity of the secret and also the product it implements. If the product is an immaterial phenomenon, like the profitable acquisition or sale of stock, or the more efficient production of a good, the secret information used to effect these results may be more difficult to discern than that used to produce material objects. Trade secrets whose value depends upon the production of material goods, like liquid fragrances and jet engines, may be more tractable to reverse engineering because material objects provide palpable, audible, visible, and otherwise perceptible information about the means through which the ultimate objective of the trade secret is obtained, e.g.: an agreeable scent; a faster and more efficient flight.

On the other hand, while it may be easier to “crack” trade secrets used in the production of material goods than of immaterial services, it may be more difficult to implement the acquired, once-secret, information. This is because the value of physical products, unlike immaterial services, depends to varying degrees upon the materials used in their manufacture. A trade secret for building a jet engine, for instance, is of little value without access to the particular titanium alloy needed for its implementation; the formula

See Office of Policy and External Affairs, Trade Secrets, <http://www.uspto.gov/patents-getting-started/international-protection/office-policy-and-external-affairs-patent-trade>.

⁴¹ “Although not protected as a classical IPR, trade secrets are nevertheless a key complementary instrument for the required appropriation of intellectual assets that are the drivers of the knowledge economy of the 21st century. The holder of a trade secret does not have exclusive rights over the information covered by the trade secret.” *Commission Proposal for a Directive of the European Parliament and of the Council on the Protection of Undisclosed Know-how and Business Information (Trade Secrets) Against their Unlawful Acquisition, Use and Disclosure*, COM (2013) 813 final (Nov. 28, 2013).

⁴² Under U.S. law the rights of copyright owners are limited by statutory provisions authorizing certain limited uses of copyrighted works by journalists, educators, et al. See Copyright Act of 1976, 17 U.S.C. §§107, 108 (2012).

⁴³ Many manufacturers anticipate and avert such losses through sales contract provisions that prohibit customers from reverse engineering products acquired from the manufacturer.

for a fine fragrance is more valuable to a company with established ties to suppliers of top-tier natural raw materials than to a start-up sourcing from an unknown grower selling adulterated plant essences.

In the United States the acquisition of trade secrets through reverse engineering is legally permissible.⁴⁴ This freedom is desirable insofar as it forestalls the possibility of the legal protection of trade secrets providing monopolist protection for innovations – a right exclusively within the purview of U.S. patent law.⁴⁵ While reverse engineering to learn manufacturing secrets is generally legal in the United States, legislation has restricted unauthorized use of information acquired through reverse engineering of certain products.

At the federal level these limitations have been effected through *sui generis* protection for products like semiconductor chips and digital content anti-circumvention technologies.⁴⁶ Legislation establishing these protections has been grafted onto the copyright statute that is now the ungainly repository of even more *outrées* provisions like that providing a limited term of protection to original boat hull designs.⁴⁷ The underlying purpose of the United States legislative “carve outs” from the broad right to reverse engineer a product and use the information learned thereby, is to prevent potentially gross unfairness that may occasion market failure resulting from the easy replication of a technological advancement that may have cost another years of work and hundreds of thousands of R&D dollars.

The European Union’s proposed Directive on trade secrets would establish among all member states a liberal policy toward the acquisition of trade secrets through reverse engineering, akin to that found under United States law.⁴⁸ This approach is somewhat

⁴⁴ See *Kewanee v. Bicron*, 416 U.S. 470 (1974) (distinguishing patent protection that operates “against the world” from trade secret protection that does not protect against independent creation or reverse engineering).

⁴⁵ See *Chicago Lock Co. v. Fanberg*, 676 F.2d 400 (9th Cir. Cal. 1982) (finding that federal patent law preempts any state-conferred monopoly obtained through absolute protection of a trade secret).

⁴⁶ See Semiconductor Chip Protection Act of 1984, 17 U.S.C. § 901 et seq. (2012) (providing ten years protection for registered computer chip topographies); Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (codified in scattered sections of 5, 17, and 28 U.S.C.) (restricting the production and use of devices whose purpose is to circumvent digital rights management technologies).

⁴⁷ See Vessel Hull Design Protection Act, 17 U.S.C. §§ 1301 – 1332 (2012). The fashion industry has attempted, so far unsuccessfully, to obtain similar *sui generis* federal protection for apparel designs. See Innovative Design Protection and Piracy Prevention Act, H.R. 2511, 112th Cong. (2011).

⁴⁸ Article 4 of the Directive states: “The acquisition of trade secrets shall be considered lawful when obtained by any of the following means: (a) independent discovery or creation; (b) observation, study, disassembly or test of a product or object that has been

paradoxical: while the fundamental objective of the Directive is to *strengthen* the legal protection of trade secrets in Europe, its permissive approach to reverse engineering would likely *weaken* extant trade secret protection available under the domestic law of some European Union members, such as Italy.⁴⁹

Furthermore, as argued in a critique from the Max Planck Institute, the Directive's liberal stance on reverse engineering is particularly troublesome to industries that depend upon the production of innovative products that embody intellectual investment that is not protected as intellectual property.⁵⁰ The Institute's Comments identify fragrance manufacturing as a prime example of such an industry, and suggest that the Directive's lax approach to the acquisition of trade secrets through reverse engineering eventually could result in the evisceration of innovation in this industry and lead to the failure of this market.⁵¹

The Fragrance Industry's Traditional Reliance on Trade Secrets

The modern fragrance industry has a longstanding reputation for exceptional secrecy.⁵² This attribute can be traced to the fact that this industry was an outgrowth of early medical and pharmaceutical endeavors in France, in which the creators of curative potions and elixirs carefully guarded their formulas.⁵³ By the nineteenth century fragrance manufacturing had become largely independent of the pharmaceutical business,

made available to the public or that it is lawfully in the possession of the acquirer of the information; (c) exercise of the right of workers representatives to information and consultation in accordance with Union and national law and/or practices; (d) any other practice which, under the circumstances, is in conformity with honest commercial practices.” *Commission Proposal for a Directive of the European Parliament and of the Council on the Protection of Undisclosed Know-how and Business Information (Trade Secrets) Against their Unlawful Acquisition, Use and Disclosure*, COM (2013) 813 final (Nov. 28, 2013).

⁴⁹ See Roland Knaak, et al., *Comments of the Max Planck Institute for Innovation and Competition On the Proposal of the European Commission for a Directive on the Protection of Undisclosed Know-how and Business Information (Trade Secrets) Against Their Unlawful Acquisition, Use and Disclosure of 28 November 2013, COM (2013) 813 Final*, Max Plank Institute for Innovation and Competition Research Paper No. 14-11 (2014) (noting that the Directive does not consider trade secret protection an exclusive right but rather one obtained under unfair competition law, whereas Italian law considers trade secrets to be intellectual property rights).

⁵⁰ See *id.*, ¶ 37.

⁵¹ *Id.*

⁵² See Stamelman, *supra* note XX and accompanying text.

⁵³ The still-secret formula for the liqueur Chartreuse was originally used to create a more potent concoction used as medicine. See *supra*, note XX.

and many enterprises had been established in the area of Grasse exclusively for the production of fragrances, particularly perfumes to be applied to the body.⁵⁴

Unlike most products touched by the fragrance industry today, these goods were considered luxuries to be enjoyed by a few affluent consumers, and produced in small quantities by small family-owned enterprises.⁵⁵ It was relatively easy to keep secret manufacturing know-how and formulas among the small staffs of these enterprises. Moreover, these teams were typically comprised of related employees, most who would spend their entire careers at the company.

While the industry still produces luxury products like fine fragrances, today much of the merchandise produced by major fragrance houses is used to scent innumerable consumer products like laundry detergent and hair gel.⁵⁶ The largest of these fragrance manufacturers, have thousands of employees who commonly move among companies over the course of their careers.⁵⁷

The enormous expansion of both the fragrance industry's now-itinerant workforce, as well as the number of consumer products it affects, has made it much more difficult for fragrance producers today to maintain their trade secrets than it was for the small fragrance houses and perfumeries of the eighteenth and nineteenth centuries. This difficulty has been reflected in a flurry of trade secret misappropriation claims made by former employers of perfumers and flavorists who joined competing firms.⁵⁸

⁵⁴ Napoleon III, Emperor of France between 1852 - 70, was perhaps indirectly responsible for the separation of the fragrance and pharmaceutical industries by promulgating a regulation requiring makers of pharmaceuticals to disclose on the labels of their products the ingredients they contained. To preserve the secrecy of their formulas, perfume manufacturers disassociated themselves and their products from pharmacists and pharmaceuticals. See Stamelman, *supra* note XX at 95.

⁵⁵ Houbigant legend is that Marie Antoinette, in disguise on her flight to Varennes, was wearing a Houbigant fragrance, which caused her to be identified as royalty when her coach was stopped, because none but royalty would have possessed such a magnificent perfume! Perfume Projects, <http://www.perfumeprojects.com/museum/marketers/Houbigant.php>.

⁵⁶ Eighty percent of fragrances sold today are incorporated into personal care and household care products. See Huggard Consulting Group, *The Socio-Economic Contribution of Fragrances: Intellectual Models* 9 (2011) (copy on file with author).

⁵⁷ In 2013 Givaudan, the world's largest producer of flavors and fragrances, had 9,331 employees distributed throughout eighty-eight locations in five continents. GIVAUDAN, ANNUAL REPORT 3 (2013).

⁵⁸ E.g., IPRA Fragrances' (France) claim in 2012 against employees who joined a competitor, see Mathilde Tranoy, *Deux salairiés accusés d'avoir vendu des formules aromatiques secrètes*, NICE MATIN (March 30, 2012); Estée Lauder's claim against ex-employee Shashi Batra for sharing its trade secrets with a direct competitor, see *Estée Lauder Cos. v. Batra*, 430 F. Supp. 2d 158 (S.D.N.Y. 2006); Intarome Fragrance & Flavor's prosecution of fired employee Michael Zarkades for sharing trade secrets with

One of the most acrimonious of these disputes involves the ongoing prosecution by Givaudan, a large Swiss-based fragrance manufacturer, of a claim against its former perfumer James Krivda.⁵⁹ In 2008 Krivda left a vice-president position at Givaudan for a similar appointment at Mane USA, Inc., a direct competitor.⁶⁰ Givaudan asserts that in the days immediately prior to resigning, Krivda downloaded and printed from the company's secure database over 600 proprietary formulas that he brought with him to Mane.⁶¹

At trial Givaudan offered detailed evidence that Mane had capitalized on thirty-four of the formulas that it claimed Krivda misappropriated, by marketing under new names fragrances identical to Givaudan's.⁶² The trial court, however, granted in part the defendants' motion for summary judgment based on a finding of insufficient disclosure by Givaudan of information about 600 of the additional formulas that Givaudan claimed the defendants had misappropriated.⁶³ Accordingly, testimony at trial was limited to a small fraction of the information Givaudan claimed Krivda misappropriated. In February 2014 a federal district court jury in New Jersey exonerated Krivda and Mane of all liability, and Givaudan is now seeking a new trial.⁶⁴

In prosecuting this claim Givaudan faced a commonplace dilemma of plaintiffs in trade secret litigation. To establish a meaningful claim of misappropriation of trade secrets an owner must convey information about the secrets both to the court and to the defendant. Once this information is voluntarily disclosed, however, it may no longer be protectable as trade secrets because others, including the defendant who is almost certainly a competitor, then unquestionably know it.⁶⁵

E.T. Horn, a flavor manufacturer, *see* *Intarome Fragrance & Flavor Corp. v. Zarkades*, 2008 U.S. Dist. LEXIS 97631 (D.N.J. Dec. 1, 2008).

⁵⁹ *Givaudan Fragrances Corp. v. Krivda*, No. 08-04409, 2013 U.S. Dist. LEXIS 153437 (D.C.N.J. Oct. 25, 2013).

⁶⁰ *See id.*

⁶¹ *Id.* at 4.

⁶² *Id.* at 6.

⁶³ *See id.*

⁶⁴ *See* Plaintiff Givaudan Fragrances Corporation's Memorandum of Law in Support of Motion for a New Trial, *Givaudan Fragrances Corp. v. Krivda*, No. 08-04409 (D.C.N.J. April 7, 2014).

⁶⁵ Apparently Givaudan did not trust the efficacy of the court's protective order that would have purportedly prevented the disclosure of over 600 Givaudan formulas through their inclusion in the docket for this litigation. Because Givaudan would not fully disclose these formulas to the defendant and the court, the court dismissed the case based on its determination that the plaintiff failed to provide defendant adequate notice of the allegedly misappropriated trade secrets. *See id.*

What fundamentally rattled Givaudan about Krivda's purportedly absconding with hundreds of the company's formulas was that his doing so provided a competitor a windfall of valuable information obtained without the reverse engineering costs that would be incurred through legal acquisition of such information. Krivda *could* have purchased hundreds of products incorporating Givaudan's fragrances, and worked with Mane's chemical analysts on the painstaking task of isolating and dissecting them. Given the brief life cycle of most fragranced merchandise, however, the market success of an innovative product depends significantly on the potentially dissuasive expense and time lag incurred in reverse engineering and developing a competing product. If, therefore, Krivda provided to Mane the trade secrets Givaudan claims he stole, Mane could not only avoid the temporal and financial cost of reverse engineering, but also thereby produce within the period of market viability of Givaudan's products, competing merchandise offered at a lower price. Moreover, because reverse engineering technologies cannot always provide exact and complete information about the chemical composition of a fragrance, any potential ambiguities attending a reverse-engineered formula are evaded by simply lifting the formula itself.

The Impact of Gas Chromatography-Mass Spectrometry (GC-MS) Technologies on the Fragrance Industry

The popular imagination has held to the romantic notion that fragrances, particularly perfumes applied to the body, are created from closely held and undetectable formulas. The conceit of Patrick Süskind's novel *Perfume*, for instance, centers on its murderous protagonist's prodigious, and bestial, capacity to analyze scents.⁶⁶ Tom Robbin's *Jitterbug Perfume*, on the other hand, tells the picaresque tale of an arduous quest to discover the formula of an ancient fragrance ultimately revealed to have contained the *recherché* ingredient of beet blossom essence.⁶⁷

In fact, using contemporary GC-MS technologies one can learn with remarkable accuracy the formula of any fragrance.⁶⁸ Gas chromatography is a technique for separating the components of a vapor by observing the different speed by which each chemical component is expelled from a long tube through which a sample of the vapor is swept.⁶⁹ Once the components have been separated, a mass spectrometry apparatus identifies the various separated molecules and their relative volumes in the composition of the vapor.⁷⁰

⁶⁶ Patrick Süskind, *PERFUME: THE STORY OF A MURDERER* (1985).

⁶⁷ Tim Robbins, *JITTERBUG PERFUME* (1984).

⁶⁸ See Arian van Asten, *The Importance of GC and GC-MS in Perfume Analysis*, 21 *TRENDS IN ANALYTICAL CHEMISTRY* 698 (2002) (noting that there is little discussion in the open literature about the work of analytic chemists in the fragrance industry because "that is usually not in the best interest of the companies operating in this highly competitive environment").

⁶⁹ See John Daintith, *A DICTIONARY OF CHEMISTRY* (6th ed. 2008).

⁷⁰ See *id.*

GC-MS technology is disconcerting to fragrance houses because it enables practically anyone to obtain increasingly swiftly, and at ever-lower expense, the most costly component of a fragrance -- the formula typically developed from months, or even years, of research costing hundreds of thousands of dollars. Unsurprisingly, as GC-MS technologies have become increasingly affordable and effective, a shadowy industry has developed to manufacture and distribute “smell-alike” versions of well-known fragrances sold at prices significantly less than those of original brands.⁷¹

Five multinational corporations, four of which originated in Western Europe, dominate the world fragrance market.⁷² For years this industrial concentration fostered a tacit agreement among the industry’s largest players. Under this informal understanding the major fragrance houses would not cannibalize each other by manufacturing competing products that were based on formulas of a competitor that were acquired through reverse engineering.⁷³ Otherwise a competitor could undercut an innovator’s market by selling products at prices that did not reflect the innovator’s R&D expenditures.

The increasing accessibility and accuracy of GC-MS technologies in recent years, however, has tested the stability of the “gentleman’s agreement” among fragrance manufacturers. Moreover, this understanding never extended to the client base of the major fragrance producers, whose constituents range from consumer products giants like Unilever to couture houses like Dior (LVMH) who attach their brands to fine fragrances that are developed and manufactured by large external suppliers.

GC-MS technologies have provided these clients a lever for negotiating lower prices for the development of new fragrances, as well as those for ongoing supplies of already commissioned products. If a fragrance house balks at the price negotiated by a client for ongoing supplies of a product that it developed for the client, the client could reverse engineer the fragrance, and then buy supplies of it at a lower price from a competitor of the initial supplier. The competitor would have legitimately obtained the formula without incurring the cost of creating it.

GC-MS technologies make it more feasible also for clients themselves to produce ongoing supplies of perfumes that were developed at their behest by fragrance houses.

⁷¹ “Pirate Parfum” (“The greatest perfumes, at impertinent prices”) is a significant player in this market. It does not sell counterfeits of well-known perfumes, but rather copies of them that are branded with different names, and sold in uniform and non-descript packaging with no resemblance to that of the original products. *See* Pirate Parfum: Master Perfumer, <https://us.pirate-parfum.com>.

⁷² *See supra*, note XX and accompanying text. International Flavors & Fragrances (IFF) is headquartered in the United States, but originated in the Netherlands. *See* IFF History, <http://www.iff.com/Company/IFF-History>.

⁷³ *See* Claire Guillemin, Law and Odeur, Part I, §3 (Jan., 2014) (unpublished Ph.D. dissertation, Bucerius Law School) (on file with author) (discussing the origins of this understanding in the quasi-familial ethos of the fragrance industry through the early twentieth century).

This discomfiting potential was realized in 2011 when the luxury conglomerate LVMH, after building a fragrance compounding facility outside Paris, began producing supplies of concentrates for their popular brands like *Miss Dior Chérie*, *Dior Homme* and *Kenzo Flowers*, and that they had previously obtained from Givaudan, Firmenich, and IFF, following these companies development of their respective formulas.⁷⁴ LVMH claimed that the blends that they produced for these brands embodied subtle modifications of those that had been produced by Givaudan, et al. – presumably a tactic to avert liability for breaching any contractual obligation to purchase concentrates from the companies that developed the original fragrances.⁷⁵ LVMH’s actions were particularly distressing to fragrance houses because they involved the production of successful and well-established perfumes.⁷⁶ Profits derived from sale of the liquid blends to produce these goods cover not only the costs of their development, but also the formulation of a constant stream of new proprietary blends that manufacturers use to compete for new business.

As the owner of fragrance brands like Givenchy and Dior, LVMH is one of the most significant players in the retail fragrance industry.⁷⁷ Fragrance houses are naturally reluctant to alienate themselves from such a powerful client that intends to continue commissioning the development of new products that capitalize on these companies’ deep R&D expertise. Fragrance houses could contractually preclude their customers’ from certain uses of newly developed formulas, or from obtaining supplies of certain fragrance compounds from other sources. Such terms, however, would be difficult to negotiate in light of the bargaining advantage that analytic technologies now provide to fragrance industry clients. Given the feasibility of legally reverse engineering and independently producing a fragrance, clients would agree not to do so only in exchange for price concessions, or guarantees regarding the ongoing manufacture and quality of a product, e.g., the sourcing of ingredients from a particular supplier.

To summarize, over the past few decades, the availability and enhanced capacity of GC-MS technologies have significantly challenged the fragrance industry’s business model. The industry’s most valuable assets, formulas long protected as trade secrets, can now be legally acquired by anyone with access to a well-equipped laboratory. The effects of this loss of protection have been compounded by unprecedented calls for greater government regulation of the industry’s products that could require the public disclosure of the

⁷⁴ See Nicole Vulser, *Le groupe LVMH se réapproprié la fabrication de ses parfums*, LE MONDE, May 28, 2011, at 16 (noting that LVMH owns the Sephora chain, one of the largest retail outlets for perfume). See also, Fabien Pigalle, *Grasse: Louis Vuitton se (re)met au parfum*, NICE-MATIN, April 13, 2012, at 36 (discussing LVMH’s plans to open in 2014 a workshop for fragrance development in Grasse).

⁷⁵ See *id.*

⁷⁶ “We were presented with a fait accompli. Dior did not warn us that it would no longer market one of our flagship products,” said Frédéric Rivoire, CEO of Givaudan Fine Fragrances Europe. “The shortfall for the company, even though it is working for other brands, amounts to several million euros of turnover.” *Id.*

⁷⁷ See LVMH Houses, Perfumes & Cosmetics, <http://www.lvmh.com/houses/perfumes-cosmetics/>.

ingredients, or even the formulas, of proprietary fragrance compounds.⁷⁸ Now that trade secret protection has been compromised for the fragrance industry, are there other forms of intellectual property for which this industry should seek protection instead?

III. PATENT AND COPYRIGHT PROTECTION FOR FRAGRANCES

Patent

Under U.S. and E.U. law, patent holders are provided a twenty-year monopoly for the manufacture, use, and sale of their inventions.⁷⁹ Even those who independently develop, or reverse engineer, an invention covered by patent are prohibited from unauthorized manufacturing, using, importing, and selling of products or services that implement it. This sweeping prohibition is tempered, however, by the patent holder's obligation to disclose, in the course of registering the patent, the composition and functioning of his invention that enters the public domain when the patent term expires.⁸⁰

Despite the strength of patent protection, the fragrance industry does not rely heavily upon this form of intellectual property for the protection of fragrance formulas, and those of fine fragrances in particular.⁸¹ An invention must be useful to be patentable.⁸² Like the jewelry business, the fragrance industry promotes high-end perfumes as pure luxuries. Ascribing utility to these goods tarnishes their *cachet* of exclusivity, and thereby the economic value associated with entirely discretionary products.⁸³

⁷⁸ See, e.g., Regulation No. 1367/2006 of the European Parliament and of the Council on the Application of the Provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community Institutions and Bodies (Sept 6, 2006) (granting a public right of access to information held by EU agencies relating to "emissions into the environment").

⁷⁹ See U.S. Patent Act, 35 U.S.C. §154 (2012); Convention on the Grant of European Patents, Oct. 5, 1973, 1065 U.N.T.S. 199.

⁸⁰ See 35 U.S.C. §112 (2012).

⁸¹ Within the fragrance industry "fine fragrances" refers to stand-alone branded perfumes that are worn on the body for aesthetic purposes.

⁸² See 35 U.S.C. §101 (2012).

⁸³ The appeal and economic value of a perfume are actually enhanced by its lack of utility. Lysol underscores the utility of its stolidly named aerosol "Air Sanitizer" as an economical and effective product to control "bathroom, pet, garbage, and diaper odors," whereas Patou fosters an attitude of hedonic and heedless extravagance in advertising *Joy* as the costliest perfume in the world." Economist Thorstein Veblen (1857-1929) pointed out the value associated with conspicuous wastefulness and lack of utility of certain products. "The superior gratification derived from the use and contemplation of costly and supposedly beautiful products is, commonly in great measure a gratification of our sense of costliness masquerading under the name of beauty." Thorstein Veblen, *THE THEORY OF THE LEISURE CLASS* 128 (Prometheus Books 1998) (1899).

Moreover, the trade-off between patent's twenty-year term of monopolistic control and full disclosure of the patented invention is unpalatable to the fragrance industry. This is not only because the market for many of the industry's high-end products lasts more than twenty years, but also because longevity in the marketplace of some of these products actually makes them *more* valuable over time.⁸⁴

While the fragrance industry does not rely much on patents to protect the formulas used to produce its end products – i.e. fragrances – there have been thousands of applications in U.S. Patent Class 512 covering “perfume compositions”.⁸⁵ Most of these applications, however, are for innovative means for extracting, manufacturing, or delivering fragrances.⁸⁶ The relatively few registered patents that protect the formulas of fragrant compounds are grounded in claims of the product's useful capacity to supplant noxious odors or – more dubitably -- to promote physical and mental health.⁸⁷

Fragrance companies rely upon patents also to protect some of their most valuable assets: new fragrance molecules that they have developed, known as “captives”.⁸⁸ These “captured” (or manufactured) proprietary molecules typically are not valuable because of the beauty of their scent, but rather for their capacity to enable the creation of original,

⁸⁴ The prestige and prices of Chanel's *No. 5* and Patou's *Joy* for instance, are bolstered by the fact that both products have endured since 1929 and 1921 respectively, in a market in which hundreds of new fragrances are launched (and typically fail) annually. On the other hand, most seasonal or “celebrity” fragrances have such limited shelf lives that they need no IP protection whatever.

⁸⁵ See United States Patent and Trademark Office USPC Index, <http://www.uspto.gov/web/patents/classification/uspc512/sched512.htm>.

⁸⁶ *Id.*

⁸⁷ *E.g.*, Shiseido's patent (U.S. Patent No. 7,169,746) for a “perfume for effecting mental control through psycho-sedation or psycho-stimulation.” United States regulation of fragrances has been relatively sparing. The United States Fair Packaging and Labeling Act (15 U.S.C. §1453 [2012]) requires disclosure of ingredients used in consumer products unless such disclosure would reveal trade secrets. Because fragrance manufacturers assert that their compositions constitute trade secrets, their incorporation into a product is typically indicated not with a list of constituent chemicals but rather simply the term “fragrance”. The United States Food and Drug Administration (USFDA), however, classifies fragrances that are marketed for their aroma-therapeutic capacities as drugs that are subject to the Administration's more stringent regulation. See USFDA, Aromatherapy, <http://www.fda.gov/Cosmetics/ProductsIngredients/Products/ucm127054.htm>.

⁸⁸ See Erin McAvoy, *Chemical Romance: How did Chemists Become the Greatest Force in Fragrance?*, THE INDEPENDENT, Dec. 10, 2010 (noting that “synthetic raw materials, usually single molecules, enable perfumers to create entirely new smells”).

safer, or less costly fragrances.⁸⁹ The handful of fragrance companies that dominate the world market create and own most captives because only these companies can afford the significant R&D investment required for their creation.⁹⁰ Companies that develop patentable molecules may initially manufacture fragrances employing these captives, but much of their profit is derived from subsequent sales of them -- or licenses to use them during the term of patent protection -- to other fragrance manufacturers who more exhaustively explore and capitalize on their potential.⁹¹

Copyright

A patent is costly and difficult to obtain because the claimant must establish that his invention implements new information for a useful purpose.⁹² A copyright registration, on the other hand, is easy to acquire because the registering author must simply claim that his work is more than *de minimus* original expression.⁹³ In other words, an author may register even expression already copyrighted, or in the public domain, as long as *his* expression was produced independently of the preexisting work.⁹⁴

Copyright owners enjoy a “bundle of rights” in a protected work, including reproduction and performance rights, and the right to create derivative works.⁹⁵ The term of copyright is typically at least several times that of a patent, although the protection copyright offers is moderated – particularly in the United States – by “fair use” and other exemptions

⁸⁹ See *id.* See also Emma Davies, *The Sweet Scent of Success*, 40 CHEMISTRY WORLD __ (Feb. 2009) (discussing the deployment of several of the most significant proprietary perfume molecules in fragrances like Dior’s *Poison* and Donna Karan’s *Be Delicious*).

⁹⁰ See Leffingwell & Associates, Flavor & Fragrance Industry Leaders, http://www.leffingwell.com/top_10.htm.

⁹¹ See Wendy Wolfson, *In the Fragrance Business, the Right Molecule Smells like Money*, 12 CHEMISTRY & BIOLOGY 857 (2005) (discussing Flexitol’s attempt to become a clearinghouse for scent molecule licensing).

⁹² See United States Patent Law, 35 U.S.C. §§101 - 103 (2012). Patent prosecution is costly in large part because it involves the work of specialists who investigate claims of novelty against the state of the art in a given class of goods. See United States Patent & Trademark Office, MANUAL OF PATENT EXAMINING PROCEDURE (9th ed. 2014).

⁹³ One must register an invention to obtain a patent for it; an author automatically obtains a copyright, however, simply by recording his original expression as text, sound, images, etc. U.S. Copyright Act, 17 U.S.C. §102 (2012).

⁹⁴ In the timeworn words of Judge Learned Hand: “if by some magic a man who had never known it were to compose anew Keat’s *Ode on a Grecian Urn*, he would be an ‘author’, and, if he copyrighted it, others might not copy the poem, though they might of course copy Keats’s.” *Sheldon v. Metro-Goldwyn-Mayer Pictures Corp.*, 81 F.2d (2d Cir.) *cert. denied*, 298 U.S. 669 (1936).

⁹⁵ See United States Copyright Act, 17 U.S.C §106 (2012); World Intellectual Property Organization, *Summary of the Berne Convention for the Protection of Literary and Artistic Works (1866)*, http://www.wipo.int/treaties/en/ip/berne/summary_berne.html.

permitting certain otherwise unauthorized uses of copyrighted works for educational and archival purposes.⁹⁶

The scope of copyrightable expression has grown exponentially since enactment of the Statute of Anne in 1710 that established authors' rights in their books.⁹⁷ This elasticity of the margins of protection has been accommodated by evolving copyright statutes that provide illustrative, but not exhaustive, examples of copyrightable works. The French copyright statute, for instance, delineates fourteen exemplary categories of works typically considered works of protectable authorship, but prefaces this list with a broad statement extending copyright protection to all intellectual creations, "regardless of their embodiment, merit, or purpose."⁹⁸ The U.S. Copyright Statute offers a similarly broad definition of copyrightable authorship followed by an illustrative list of eight categories of copyrightable works.⁹⁹

Given that copyrights are easy to obtain, and provide lengthy terms of protection, they would appear to be an attractive means by which the fragrance industry could protect at least fine fragrances intended for purely aesthetic enjoyment. Moreover, a copyrighted fragrance, like one that is patented, cannot be legally reverse engineered and reproduced without authorization from the owner.¹⁰⁰

Fragrances are ultimately embodied and perceived as particular combinations of airborne molecules. Nevertheless, manufactured fragrances, like pharmaceuticals, are ultimately works of information typically fixed in visual symbols comprising a formula. In this respect – and others – they are akin to music scores whose visual information is used to produce a performance by which a work of music is typically broadly disseminated, and ultimately perceived, as sound.

A skilled and patient musician can "reverse engineer" a music score from repeated hearings of a performance of it.¹⁰¹ Digital audio technologies can dissect the sounds of

⁹⁶ See 17 U.S.C. §§ 107 - 110 (2012).

⁹⁷ 8 Anne., c. 19, (1710).

⁹⁸ Code de la Propriété Intellectuelle, Ch. II, Art. L. 112-1 (the last of the fourteen categories covers articles of haute couture).

⁹⁹ The House Report on the Copyright Act of 1976 states:

"The bill does not intend either to freeze the scope of copyrightable subject matter at the present stage of communications technology or to allow unlimited expansion into areas completely outside the present congressional intent. Section 102 implies neither that the subject matter is unlimited nor that new forms of expression within that general area of subject matter would necessarily be unprotected."

H.R. REP. NO. 94-1476, at 51 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 5659, 5664.

¹⁰⁰ Theoretically, another could independently and legitimately re-create the copyrighted fragrance as long as this effort were done without access to the original fragrance. See *supra*, note XX.

¹⁰¹ The most famous example of such a transcription from memory is Mozart's of the score of Gregorio Allegri's *Miserere* after hearing two performances of it at the Vatican

performances of even relatively complex musical works and render increasingly accurate scores in traditional music notation.¹⁰² Just as an audio recording of the reading of a book – whether through the sounds of a human voice or a manufactured version of one – is a copy of a literary work, a music score derived from the sounds of a performance of it is a copy of the musical work underlying both the performance and the score. Likewise, if we consider man-made fragrances to be copyrightable works of authorship, the dissection and reconstruction of a fragrance, whether by a human with preternatural olfaction or by a mechanical apparatus for molecular analysis, results in a reproduction of that fragrance, which only the copyright owner is authorized to make.

Until the latter half of the twentieth century perfumers never considered copyright as a means to protect their original blends of fragrant materials. Apart from the fact that historically the focus of copyright protection has been literary texts, there was no need for such protection given the difficulty of copying a fragrance by separating the components -- and their proportional deployment – in a particular blend. Given this impediment fragrance formulas could enjoy perpetual protection as trade secrets rather than merely a term of perhaps twenty-eight years as once provided to copyrighted works of authorship.¹⁰³

By the end of the twentieth century the breadth of copyrightable subject matter had grown prodigiously to include fancifully costumed fictional characters, and computer programs – works never contemplated by those who promoted authors' rights in the eighteenth century.¹⁰⁴ By the same time technologies for molecular analysis had become

in 1770. The Vatican owned the only score and parts to Allegri's work that was performed only twice a year, during Holy Week, in the Sistine Chapel. Performers with access to the score and parts were threatened with excommunication if they were found to have copied or distributed the work outside the Vatican. "The Papacy, realising that it owned a composition of exceptional appeal, shrewdly heightened its reputation by refusing to allow any copy to leave the Sistine Chapel. This ban was supported by threats of severe punishment." Peter Phillips, Brochure Notes to The Tallis Scholars recording of Allegri's *Miserere* (Gimell Records 1985).

¹⁰² Makers of Sibelius music notation software, for instance, claim that their program can convert the sound of "up to 16 instruments or notes at a time into multiple staves, with up to four voices per staff." Sibelius Audioscore Ultimate, <http://www.sibelius.com/products/audioscore/ultimate.html>.

¹⁰³ The 1909 Copyright Act that was effective until 1978, provided an initial term of twenty-eight years, which could be renewed. Act of Mar. 4, 1909, Pub. L. No. 60-349, 60th Cong., 2d Sess., 35 Stat. 1035, as amended (formerly codified at 17 U.S.C. § 1 *et seq.*). When copyright (and patent) terms expire, the once-protected work enters the public domain and can be used by anyone.

¹⁰⁴ See *Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp.*, 562 F.2d 1157 (9th Cir. 1977) (finding that characters used in a McDonald's television commercial copied not merely the plaintiffs' idea of fanciful characters in action, but substantially also their specific means of conveying this idea); *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240 (3d Cir. Pa. 1983) (finding that if "other programs can be

so advanced and accessible that perfumers could no longer depend upon secrecy to prevent competitors from learning the formulas of their fragrances. Copyright surfaced, therefore, as a potential new means of protecting fragrance formulas – and one particularly appealing to an increasing number of perfumers who consider themselves authors and artists who create original aesthetic works.¹⁰⁵

Although France is no longer a leading fragrance producer, it remains an influential force in the fragrance industry.¹⁰⁶ France is divested of much of the agriculture and essence extraction work associated with the industry, but it has retained the expertise for manufacturing fragrances and creating new blends. This element of national patrimony has been capitalized upon by French ventures offering education and degrees for the study of fragrance creation, and even today many perfumers at major fragrance companies have trained, at least in part, in France. Not surprisingly then, the most significant *débat* on whether fragrances are copyrightable expression occurred in France.¹⁰⁷

*Copyright: Odor in the Courts*¹⁰⁸

In the early 1970s De Laire, a French fragrance manufacturer, contracted with the couture house Rochas to create several new fragrances.¹⁰⁹ De Laire agreed to divulge the formulas of these fragrances to Rochas in exchange for Rochas's promise to purchase from De Laire all concentrates of any new fragrances that the fashion house chose to add to its perfume line. After providing Rochas the formula for one or two perfumes, but subsequently receiving no orders to produce them, De Laire sued, claiming that Rochas had infringed its copyright through its unauthorized production of fragrance using De Laire's formulas.

De Laire's claim failed when an appeals court upheld a lower court's finding that perfumes are practical works and therefore eligible only for patent protection.¹¹⁰ Moreover, because perfumes are not tractable to meaningful and consistent description by

written or created which perform the same function as Apple's operating system program, then that program is an expression of the idea and hence copyrightable").

¹⁰⁵ See Frédérick Malle, Editions de Parfums, <http://www.fredericmalle.com/about-us/frederic-malle>.

¹⁰⁶ See *supra* note XX and accompanying text.

¹⁰⁷ See Claire Guillemin, Law and Odeur, (Jan., 2014) (unpublished Ph.D. dissertation, Bucerius Law School) (on file with author) (providing exhaustive coverage of French and Dutch copyright litigation involving fragrances).

¹⁰⁸ Olivia Su, *Note: Odor in the Courts! Extending Copyright Protection to Perfumes May Not be so Nonscentical: An Investigation of the Legal Bulwarks Available for Fine Fragrances Amid Advancing Reverse Engineering Technology*, 23 S. CAL INTERDIS. L. J. 663 (2014).

¹⁰⁹ See *Rochas v. de Laire*, Cour d'appel [C.A.] [Regional Ct. App.] Paris, 4e ch., July 3, 1975, Gaz. Pal. 1976.

¹¹⁰ See *id.*

those who perceive them, they cannot be considered copyrightable "*oeuvres de l'esprit*."¹¹¹ The holding reflects a view that perfumes cannot be considered original expression because human olfaction is too crude to perceive and describe fragrances except in broad terms.

Fifteen years after the *Rochas* dispute the French perfume house Molinard created a fragrance marketed as a "smell-alike" of *Angel* -- the popular perfume created by Olivier Cresp for Quest International, commissioned by fashion designer Thierry Mugler.¹¹² When Mugler sued Molinard for copyright infringement the Paris Tribunal de Commerce discounted the defendant's argument based on *Rochas* that as products of industrial technique, perfumes couldn't qualify as original works of personal intellection.¹¹³ Comparing the formula of a perfume to a music score, the *Mugler* court suggested that variations among perceptions and reactions to a scent are akin to idiosyncratic receptions among those listening to the same musical work, and do not indicate ineligibility for copyright protection.¹¹⁴

Several years after *Mugler* the cosmetic giant L'Oréal sued Bellure, an importer of "smell-alike" fragrances, claiming it was infringing L'Oréal's copyright in its popular perfume *Trésor*.¹¹⁵ Deciding the dispute in favor of L'Oréal, the Paris Cour d'appel noted that the fact that the French Intellectual Property Code does not include fragrances among its list of copyrightable works was not dispositive on the issue of copyrightability.¹¹⁶ All works of intellect are eligible for copyright protection -- even those that might also be patentable, and even those that are not fixed -- if they are perceptible, and also original insofar as they reveal the imprint of the creator's personality.¹¹⁷

At the same time L'Oréal was prosecuting its claim against Bellure in France, its subsidiary Lancôme initiated in the Netherlands a copyright infringement action against

¹¹¹ *Id.*

¹¹² *Mugler v. Molinard*, Tribunal de commerce [T. Com.] [Commerce Ct.] Paris, 15e ch., Sept. 24, 1999, Gaz. Pal. 2001, 17-18.01, at 5. Quest International was subsequently acquired by Givaudan in 2006. See Sam Cage, Givaudan buys Quest from ICI, Reuters Business News (Nov. 22, 2006) (<http://uk.reuters.com/article/2006/11/22/uk-chemicals-givaudan-idUKL2288827020061122>).

¹¹³ See *Mugler, v. Molinard*, Gaz. Pal. 2001, 17-18.01, at 5. Historically, in civil law regimes, like that of France, courts pay less obeisance to case law precedence than their common law counterparts. See generally, Vincy Fon & Francesco Parisi, *Judicial Precedents in Civil Law Systems: A Dynamic Analysis* 26 INT'L REV. L & ECON. 519 (2006). Accordingly, the *Mugler* court evidently felt no compunction about rendering a decision incompatible with that of the earlier *Rochas* decision by a higher court.

¹¹⁴ See *Mugler v. Molinard*, *supra* note XX.

¹¹⁵ See *Bellure v. L'Oréal, et al.*, Cour d'appel (C.A.) [Regional Ct. App.] Paris, 4e ch. A, Jan. 25, 2006, D. 2006, at 580, J. Daleau, *aff'g* *Bellure v. l'Oréal et al.*, Tribunal de Grande Instance [T.G.I.] [Ordinary Ct. of Original Jurisdiction] Paris, May 26, 2004, D. 2004, at 2641, note Galloux.

¹¹⁶ See *id.*

¹¹⁷ *Id.*

the Dutch perfume seller Kecofa.¹¹⁸ Lancôme claimed Kecofa's *Female Treasure* was not only a counterfeit of *Trésor*, but also infringed its copyright. The dispute advanced to the Netherlands Supreme Court that ultimately confirmed lower court findings that fragrances are copyrightable.¹¹⁹ The Supreme Court noted that the Dutch copyright statute is catholic in the scope of its protection, and cannot be read as excluding fragrances that are perceptible, original (i.e., bearing the personal imprint of their creator) and not purely technical (i.e., useful).¹²⁰

Back in France, shortly after the conclusion of the *Kecofa* litigation in the Netherlands, the Paris appeals court that had determined that L'Oréal's *Trésor* could be protected by copyright, came to the same conclusion in a claim involving designer Jean-Paul Gaultier's perfume *Le Mâle*.¹²¹ Gaultier's perfume manufacturer, Beauté Prestige International, sued a competitor, Senteur Mazal for infringing the copyrights and trademarks of Gaultier's perfumes by which it marketed "smell-alikes" sold at prices much lower than those of the Gaultier products.

Like the court in the earlier *Mugler* decision, the *Gaultier* court discounted the defendant's argument that variances in human perception of fragrances make it impossible to establish that a particular perfume possesses the originality required for copyright protection.¹²² Responding to this argument the court noted that literary, graphical, and musical works are also perceived variously, but that these variations in perception do not undermine the originality of these works.¹²³

The opinions in these Dutch and French cases that emphasize the role of the perfume creator give short shrift to that of the user, in determining whether fragrance may be copyrightable. The decision in L'Oréal's case against Bellure for instance, expressly found that a perfume can reveal the personality of its creator, and thereby be an original work.¹²⁴ Neither *L'Oréal*, nor any of the other cases, however, addressed the issue of what constitutes "revelation" of a work, a question that necessarily implicates those perceiving the "revealed" work.¹²⁵

The failing of these decisions extending copyright to fragrances does not lie in their determination that the work of perfumers can be a complex intellectual and aesthetic endeavor akin to writing and painting. These decisions are deficient because they do not

¹¹⁸ Lancôme/Kecofa, Hoge Raad der Nederlanden [H.R.] [Sup. Ct. of the Netherlands], 16 juni 2006, AMI 2006/5, at 161 (ann. Quaedvlieg) (Neth.).

¹¹⁹ *See id.*

¹²⁰ *Id.*

¹²¹ *See Beauté Prestige Int'l v. Senteur Mazal*, Cour d'appel [C.A.] [Regional Ct. App.] Paris, 4e ch., Feb. 14, 2007, D. 2007, at 735, J. Daleau.

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *See supra*, note XX and accompanying text.

¹²⁵ *See Charles Cronin, Genius in a Bottle: Perfume, Copyright, and Human Perception*, 56 J. COPYRIGHT SOC'Y 427 (2009) (discussing relative acuity of human senses and its relevance to intellectual property protection).

consider the lack of human olfactory capacity to perceive the complexity of the work rendered from this application of intelligence and imagination. The ultimate issue in all the cases involving the copyrightability of fragrance, therefore, is *how perceptible* must expression be to be protectable by copyright.

Despite the pro-copyright outcomes of the *Kecofa*, *Mugler*, and *Gaultier* cases, the Cour de cassation recently delivered a severe check to those advocating copyright eligibility for fragrances in France, by addressing this issue of perception.¹²⁶ In 2006 Patrice Farque was prosecuted for selling counterfeit fragrances at a flea market outside Paris.¹²⁷ When the government's criminal case foundered for lack of evidence *Lancôme et al.* followed up in a civil suit claiming that by selling imitations of its fragrances Farque had infringed *Lancôme's* copyright in these products.¹²⁸

When *Lancôme's* case ultimately advanced to the Cour de cassation (commercial section) in 2013, the court determined unequivocally that fragrance is not copyrightable expression.¹²⁹ The court separated the act of creating a fragrance from that of perceiving it, finding that while the development of a perfume may involve creative intellection beyond technical know-how, this original thought cannot be broadly *communicated* because it cannot be sufficiently *perceived*.¹³⁰

With its 2013 decision in *Lancôme v. Farque* the Cour de cassation dashed expectations in France that copyright might offer the fragrance industry a new means by which to protect its perfume formulas. Courts in the United States have not yet fielded the question whether fragrances may enjoy copyright protection. In fact, the existing classifications under which works may be registered in the United States do not accommodate an application for a work of fragrance, and without a registration one cannot enforce one's copyright through litigation.¹³¹ Accordingly, except in the Netherlands, copyrights, like patents, offer little potential solace to an industry unsettled

¹²⁶ The Cour de cassation is France's highest appellate court that is separated into six subject-matter divisions, e.g., labor, criminal, civil, etc.

¹²⁷ *Société Lancôme v. Patrice Farque*, Cass. com., Dec. 10, 2013 Bull. civ. XX [pourvoi n° 11-19872].

¹²⁸ *See id.*

¹²⁹ *Id.*

¹³⁰ Jean-Michel Bruguière has argued that the court's rationalizing its decision on the purported imperceptibility of the intellectual investment in the creation of a fragrance is flawed: "[t]he olfactory notes of Chanel No. 5 or Eau Sauvage are as reliably and accurately identifiable as musical notes – the harmony of the Beach Boy's "Good Vibrations" or the melody of the Rolling Stones' "Satisfaction". Jean-Michel Bruguière, *Chroniques*, 50 PROPRIÉTÉS INTELLECTUELLES 51, 52 (2014). He also suggests that some contemporary works of [classical] music are no more intelligible to the public than are fragrances. *See id.*

¹³¹ The U.S. Copyright Office accepts registrations for works of: literature, visual arts, performing arts, sound recordings, and single serials. *See* eCO Registration System, <http://copyright.gov/eco/>.

by the vulnerability of its most valuable intellectual property.

IV. FRAGRANCE AND TRADEMARK PROTECTION

The Expanding Scope of Trademark Protection

Like the sphere of copyrightable expression in the United States, the range of indicators of commercial origin that are protectable for an indefinite term as trademarks, increased dramatically in the latter half of the twentieth century. By the end of the century, scents, sounds, and even single colors had become protectable trademarks.¹³² Moreover, legally protectable visual trademarks were no longer limited to those comprising words and/or designs, but had been extended also to the “trade dress” of products and services.¹³³

Although colors, scents, and sounds are protected as trademarks under U.S. law, international conventions and other national trademark regimes are typically less accommodating of these non-traditional marks than is the United States. The World Trade Organization’s multilateral Agreement on Trade-Related Aspects of Intellectual Property, for instance, establishes only that *combinations* of colors may be eligible for trademark protection, and that registration may be conditioned on the mark having already acquired distinctiveness in the market through use.¹³⁴ There is considerable variation among national trademark regimes on trademark protection for color marks, and even relatively liberal regimes, like that of Germany, may protect only those single-color marks that have acquired secondary meaning.¹³⁵

There is a similar lack of consistency among national trademark regimes with respect to sound marks, stemming in part from the fact that some nations, like Mexico and Brazil, permit registration only of marks that are visually perceptible.¹³⁶ Sound marks are not visually perceptible, but they are describable, and many, like the iconic NBC chimes comprising the intervals of a rising sixth followed by a falling third, can be represented

¹³² See *infra*, note XX and accompanying text.

¹³³ See *infra*, note XX and accompanying text. “The ‘trade dress’ of a product is essentially its total image and overall appearance. It ‘involves the total image of a product and may include features such as size, shape, color or color combinations, texture, graphics, or even particular sales techniques.’” *Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 765 n.1 (1992) (citing *Blue Bell Bio Medical v. Cin Bad, Inc.*, 864 F.2d 1253 (5th Cir. 1989), *John H. Harland Co. v. Clarke Checks, Inc.*, 711 F.2nd 966 (11th Cir. 1983)).

¹³⁴ See Daniel Zendel and Dennis Prah, *Making Sense of Trademarks: An International Survey of Non-Visual Marks*, 89 TRADEMARK WORLD (1996), available at <http://ladas.com/making-sense-trademarks-colors-sounds-scents/>.

¹³⁵ See *id.* (noting that while the German Marks Act of 1995 accommodates color marks, the German Patent Office internal guidelines require these marks to be combined with other distinctive features to be registrable).

¹³⁶ *Id.*

visually through music notation. Scent marks likewise can be accurately visually represented using the standard symbols and verbal instructions of chemical formulas, but these marks are less tractable than sound marks to verbal description.

Courts have been chary of recognizing colors, scents, and flavors as trademarks because doing so could allow first comers unfairly to monopolize the relatively few viable marks of these types for particular categories of goods and services. While the fundamental purpose of trademark protection is to protect consumers from deceptively labeled goods, this objective should not limit competition in a market by rewarding early entrants with potentially perpetual exclusive use of a limited number of marks.¹³⁷

Scent, flavor, and single-color marks are more readily depleted than design and word marks not because there are fewer potential marks in these classes, but rather because consumers haven't the same capacity to distinguish among them as they have for design, word, and sound marks.¹³⁸ There are innumerable shades of red, for instance, but it is difficult readily to distinguish between Stanford's "cardinal" and Harvard's "crimson" without additional verbal or visual information. On the other hand, it is impossible to confuse the different verbal mottos also branding these universities.¹³⁹ The public would not be served by a prohibition of universities' use of the color red as part of their "brand" simply because Harvard was the first to do so. Prohibition of another university's branding itself with the color red, the motto "Veritas", and – obviously – the name Harvard, however, is desirable because it curbs potential confusion on the part of the

¹³⁷ In 1949, for instance, in *Campbell Soup Co. v. Armour & Co.* the Third Circuit Appeals Court rejected plaintiff's claim to the exclusive right to use the color combination of red and white on food products: "If they may thus monopolize red in all of its shades the next manufacturer may monopolize orange in all its shades and the next yellow in the same way. Obviously, the list of colors will soon run out." *Campbell Soup Co. v. Armour & Co.*, 175 F.2d 795, 798 (3d Cir. 1949). Over forty years later, in *NutraSweet Co. v. Stadt Corp.*, the Seventh Circuit Appeals Court rejected the plaintiff's claim to the exclusive right to use pastel blue on its sugar substitutes packaging: "if each of the competitors presently in the tabletop sweetener market were permitted to appropriate a particular color for its product, new entrants would be deterred from entering the market". *NutraSweet Co. v. Stadt Corp.*, 917 F.2d 1024, 1028 (7th Cir. 1990). Ultimately, in *Qualitex*, the Supreme Court "concluded that the color depletion issue would rarely arise and could be resolved, if necessary, by applying the functionality doctrine to prevent anticompetitive results." 1-2 GILSON ON TRADEMARKS § 2.11.

¹³⁸ See Cronin, *supra* note XX.

¹³⁹ "Die Luft der Freiheit weht" and "Veritas" respectively. The more numerous the colors in a mark the greater the likelihood of its distinctiveness. Nevertheless, the particular perception of color marks depend to a greater extent than that of word marks on geographical location. San Franciscans will associate a combination of the colors blue and gold with the University of California at Berkeley while residents of St. Paul will think instead of their city's Bethel University. Residents of both cities will associate the combination of red, white, and blue with the United States; those of Paris and Lyon, on the other hand, will think of France.

public, as well as unwarranted derogation that the original Harvard might suffer from it.¹⁴⁰

Like single colors, scents and flavors are problematic trademarks because the typical consumer cannot distinguish variations in scents and flavors applied to products or service as one can those of designs and words.¹⁴¹ While there is a seemingly infinite number of varieties of scents and flavors, we tend to classify them, as we do shades of color, using relatively limited taxonomies: “royal blue”, “blood red”, etc. We use “floral”, for instance, to describe the scents of hundreds of different flowers, and “spicy” to refer to the taste of hundreds of different piquant flavors.

The greater the number of words or designs that are combined in a mark the more complex and inherently distinctive it is likely to be.¹⁴² This is not true for scents and flavors. Combinations of different scents and of different flavors may yield more complex chemical compounds but we tend to perceive these not as distinctive new scents and flavors but rather as muzzy blends of the relatively few generic categories of scent and flavor into which we dissect and describe them: “this wine has a citrusy flavor;” “this moisturizer has a vegetal scent.”¹⁴³

There are, of course, thousands of vegetal scents and citrusy flavors, but we cannot readily distinguish among them using a broadly shared taxonomy. Because of the potential for trademark depletion stemming from this perceptual insufficiency most national trademark regimes do not accommodate scent marks.¹⁴⁴ On this question “[t]he

¹⁴⁰ See 1-2 GILSON ON TRADEMARKS § 2.11 (discussing case law establishing that school colors, when used with “other indicia” of the institution, can acquire secondary meaning to qualify for trademark protection).

¹⁴¹ See Douglas Churovich, *Intellectual Property: Policy Considerations from a Practitioner’s Perspective: Scents, Sense or Cents? Something Stinks in the Lanham Act. Scientific Obstacles to Scent Marks*, 20 ST. LOUIS U. PUB. L. REV. 293, 293–94 (2001) (claiming that “the landmark *In re Clarke* decision was ill-advised since it was founded upon a poor, if not non-existent, understanding of oosphresiology and the misguided application of legal principles that fail to apply to scents”); Bettina Elias, *Do Scents Signify Source? An Argument Against Trademark Protection for Fragrances*, 82 T.M.R. 475 (1992) (claiming that “fragrances only rarely, if ever, function as trademarks in the market place and, in those few cases in which fragrances do arguably indicate a product’s source, their trademark protection remains doctrinally problematic and potentially impossible to implement and enforce in a consistent fashion”).

¹⁴² Visually or verbally complex marks, however, are weaker than simple marks because they demand more intellectual effort on the part of consumers to synthesize them and recall their association with a particular product or service.

¹⁴³ Most notorious is the wine industry’s attempts to suppress the fact of relatively weak human perception of tastes and smells, with the humbuggery it uses to market its products. See David Derbyshire, *Wine-tasting: It’s Junk Science*, THE GUARDIAN, June 22, 2013.

¹⁴⁴ See Daniel Zendel and Dennis Prah, *Making Sense of Trademarks: An International*

door is firmly closed in ... countries such as Brazil, Japan, China and Taiwan, where scent marks are neither registrable and the courts do not appear to have considered the protection of unregistered scent marks under other legal theories.”¹⁴⁵

While international conventions touching on intellectual property, like the TRIPS Agreement and the European Union Trademark Directive, do not expressly permit or prohibit trademark protection for scent marks, international courts and national laws have made it difficult or impossible to register them.¹⁴⁶ On the national level the trademark statutes of France and Germany, for example, implicitly preempt scent mark registrations by requiring all marks to be tractable to graphical representation.¹⁴⁷

In 2002 the European Court of Justice (ECJ) considered the question of what constitutes graphical representation of a scent mark. The dispute involved an appeal from the ruling of a German court that upheld the national trademark office’s refusal to register a scent mark. The applicant, Ralf Sieckmann, had submitted a fragrance claiming it as a mark denoting a range of professional services. As graphical representations of the mark Sieckmann had provided with his application a sample of the fragrance in a liquid, the chemical composition of the fragrance (C₆H₅-CH = CHCOOCH₃), and a description of it as “balsamically fruity with a slight hint of cinnamon.”¹⁴⁸

The ECJ determined that none of these submissions, alone or combined, were an effective graphical representation of the scent as a trademark. Despite their visibility they did not enable consumers “... to guarantee the identity of the origin of the marked product or service...by enabling him, without any possibility of confusion, to distinguish that product or service from others...”¹⁴⁹ In other words, these representations are ineffective graphical representations because the appearance of an amber liquid, and the

Survey of Non-Visual Marks, 89 TRADEMARK WORLD (1996), available at <http://ladas.com/making-sense-trademarks-colors-sounds-scents/>.

¹⁴⁵ *Id.*

¹⁴⁶ See First Council Directive to Approximate the Laws of the Member States Relating to Trade Marks, art. 2, O.J. L 40/1, at 2 (1989) (broadly defining trademarks as comprising “any sign capable of being represented graphically ... provided that such signs are capable of distinguishing the goods or services of one undertaking from those of another undertaking”); Agreement on Trade Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments-Results of the Uruguay Round, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994) (offering a similarly broad definition of trademarks, and the right of convention members to “require, as a condition of registration that signs be visually perceptible”).

¹⁴⁷ See Daniel Zendel and Dennis Pahl, *supra* note XX.

¹⁴⁸ Case C-273/00, Ralf Sieckmann v. German Pat. & Tmk. Office, 2002 E.C. R. I-11754.

¹⁴⁹ *Id.* at ¶35.

words “balsamically fruity,” may conjure any number of scents (and tastes) for most consumers, and only a minute sector of them who are trained as chemists might recognize the chemical shorthand as the fragrant compound Methyl Cinnamate.

Consumers’ limited capacity to perceive Sieckmann’s mark through these visual representations of it would obscure the boundaries of the scope of protection that a trademark registration might provide it. This obfuscation, in turn, would defeat the purpose of graphical representation that is required “...specifically to avoid any element of subjectivity in the process of identifying and perceiving the sign,” and provide overly broad protection that is potentially detrimental both to consumers and competitors of the trademark owner.¹⁵⁰ Moreover, even if consumers recognized the chemical formula for Methyl Cinnamate, as readily as we recognize H₂O as that for water, the fragrance mark itself is inherently unstable “...because of different factors which influence the manner in which it can actually be perceived, such as concentration, quantity, temperature or the substance bearing the odor.”¹⁵¹

Unlike the European Union, the United States does not require that trademarks be tractable to graphical representation to be registered. In fact, the United States Patent and Trademark Office (USPTO) has accommodated registration for such marks by establishing a classification for them: Mark Drawing Code 6, “for situations for which no drawing is possible, such as sound.”¹⁵²

While there are many United States trademark registrations for sounds, there are remarkably few for scents.¹⁵³ The first scent mark registration was issued in 1991, after the Trademark Trial and Appeal Board overturned the USPTO’s initial denial of a trademark registration for a floral scent used to brand sewing thread.¹⁵⁴ Since then only fifteen additional fragrance marks have been registered, only four of which are still “living”.¹⁵⁵ These include the scents of vanilla and citrus for cosmetics and fuel oil respectively, and that of coconut to mark the retail space of a beach apparel seller.¹⁵⁶

¹⁵⁰ *Id.* at ¶54.

¹⁵¹ *Id.* at ¶63.

¹⁵² See United States Patent & Trademark Office, TRADEMARK MANUAL OF EXAMINING PROCEDURE § 807.09 (2015).

¹⁵³ See United States Patent & Trademark Office, Trademark “Sound Mark” Examples, <http://www.uspto.gov/trademark/soundmarks/trademark-sound-mark-examples>.

¹⁵⁴ See *In re Celia Clarke*, 17 U.S.P.Q. 2d 1238 (T.T.A.B. 1990) (finding that “the scent of a product may be registrable if it is used in a non-functional manner”).

¹⁵⁵ Sixteen records were obtained July 21, 2015 using the USPTO’s Trademark Electronic Search System (<http://tmsearch.uspto.gov>) searching the terms “for situations for which no drawing is possible, such as sound,” in the Mark Drawing Code field, and the term “fragrance” in the Description of Mark field.

¹⁵⁶ Serial number 76693238 (issued in 2009 for biofuel); 85063625 (issued in 2012 for retail sales); 77755814 (issued in 2011 for cosmetics).

Most of the now “dead” fragrance marks were registered by Smead, Inc., a Minnesota office supplies manufacturer, to protect branding of its paper products – specifically variously colored hanging file folders -- with fragrances like peppermint and peach.¹⁵⁷ The fact that Smead allowed their scent trademark registrations to lapse suggests that the company determined that consumers did not effectively associate the scents with which it infused its products, with their single source. Smead might have more successfully developed consumer association between the scent of its paper products and their manufacturer if it had deployed a single fragrance across its entire line of products. While Smead could not monopolize the *idea* of scenting paper – stationers have been doing this for centuries – it might have monopolized the use of a *particular* fragrance for paper products. Smead’s use of *various* fragrances to mark interchangeable products, likely led consumers to associate the fragrance more with the particular variants – scent of peaches for the peach colored file folders, etc. – than with the manufacturer.

Growing Significance of Multisensory Trade Dress

Retail sales of consumer goods have always been driven in part by visual cues in the presentation of the merchandise, which comprise not only the distinctive packaging that we identify with specific products, but also the overall visual ambiance in which the products are displayed and sold. While one (window)shops for apparel at Saks, for instance, the flattering lighting and carpeted dressing rooms promote lingering, and palliate sticker shock, whereas the buzzing fluorescence and concrete floors of Costco generate brisk efficiency for the grim acquisition of huge quantities of “house brand” paper products and similar utilitarian goods sold there at “volume discount” prices.

In general, the more a product’s economic value stems from its purported refinement and exclusivity (e.g., perfume, jewelry, haute couture) the more its retail sales are tied to visual presentation and other factors extrinsic to the product itself. The cost of presentation and other external factors, like polite salesclerks or a forgiving returns policy, are built into the retail price of these goods. Accordingly, while Target sells for \$80 a two-and-a-half ounce bottle of the *eau de toilette* of Patou’s *Joy*, Nordstrom charges \$130 for the same item.¹⁵⁸

¹⁵⁷ See, e.g., Serial number 78649230 (apple cider scent), cancelled 2013.

¹⁵⁸ These prices were found on websites of these retailers as of July 28, 2015. Target does not sell *Joy* in its physical stores, so its presentation costs for this product are minimal. Target’s decision not to sell *Joy* in stores may have been motivated by fears that the small but relatively expensive item would be attractive to shoplifters. It may also have contracted with Patou not to do so based on Patou’s concern about the pollution of its brand through association with Target. The existing arrangement benefits both companies because underlying it is a conspiratorial understanding between them and consumers who might be embarrassed to purchase in public a high-end product at bargain- counter Target. Eau de toilette” is the most diluted version of a fine fragrance, and the only version of *Joy* sold by Target. Nordstrom also sells “Eau de parfum” that is less diluted, and more expensive, than the Eau de toilette. Nordstrom does not sell the

Retailers' use of sound to boost sales is not a recent phenomenon. Even before the advent of technologies for recording and broadcasting musical works, department stores engaged musicians whose live performances promoted not only sales of sheet music, but also of other merchandise that customers, lured into the store by the music, might purchase.¹⁵⁹ Some retailers and service providers still enhance their public spaces with live music performances.¹⁶⁰ With the development of recording and broadcasting technologies, however, this goal is now met mainly through recorded performances of musical works.

“Background music” is now so prevalent in commercial spaces in the United States that it is disconcerting to enter a shop or restaurant blessedly free of it (“Are you open?”).¹⁶¹ Like the visual décor of commercial spaces, these aural ambiances are now artfully developed and deployed to promote sales of goods and services to specific populations of consumers.¹⁶² This deployment is now so pervasive in retail spaces that the deliberate withholding of music in “big box” stores like Costco, along with that of all visual adornment, is calculated to reassure customers seeking to purchase goods at “no-frills” prices.

Because the sound of recorded music is now so commonplace in retail locations, customers are inured to it, not *listening* to it as they might a century ago have attended to a song performed by a singer in a department store. Customers still *hear* the music, however, the character of which becomes a familiar and predictable attribute of a particular commercial milieu.¹⁶³ In other words, regardless what music being played, it is being deployed as “muzak” – i.e. an aural enhancement of an environment in which

parfum, a half ounce of which is sold only at top-tier shops like Neiman Marcus for about \$350.

¹⁵⁹ See David Suisman, *SELLING SOUNDS: THE COMMERCIAL REVOLUTION IN AMERICAN MUSIC XX* (2012).

¹⁶⁰ These venues include not only restaurants featuring the dread “strolling musicians” but also Nordstrom department stores where former U.S. Secretary of State Condoleezza Rice once anticipated making a living as a musician. See Elisabeth Bumiller, *CONDOLEEZZA RICE: AN AMERICAN LIFE* 56 (2007).

¹⁶¹ “[M]usic, any music at all, is so welcome to the weak of mind and so readily supplied by their commercial manipulators that almost all the music you hear, at least all you hear inadvertently, is BAD.” Paul Fussell, *BAD: OR, THE DUMBING OF AMERICA* 126 (1991).

¹⁶² See George Prochnik, *IN PURSUIT OF SILENCE: LISTENING FOR MEANING IN A WORLD OF NOISE* (2010) (discussing soundscapes developed on behalf of Abercrombie & Fitch).

¹⁶³ See Martin Lindström, *BRAND SENSE* 72 (2005) (observing that “while hearing involves receiving auditory information through the ears, listening relies on the capacity to filter, selectively focus, remember, and respond to sound”).

retailers anticipate that we will be subliminally cajoled into focusing on something else, namely purchasing their goods or services.¹⁶⁴

The fact that customers don't actively listen to music recordings broadcast in retail spaces doesn't mean that what they hear is irrelevant to their experience and behavior within these spaces.¹⁶⁵ Retailers play music to entice customers to linger over merchandise by providing familiar and affirmative "sound tracks".¹⁶⁶ The music of these "sound tracks" is tailored to appeal to consumers most likely to purchase particular goods by conforming to their musical tastes predicated on factors like age, race, gender, and economic class.¹⁶⁷ The sound of the misogynist prattle of a rap song broadcast to flatter subliminally the egos of the young male customers in a Nike shop would alienate shoppers at Tiffany's browsing engagement rings and bone china. Accordingly, shopping malls and department stores broadcast varied "soundscapes" in which the disparate "sound tracks" comprising them are regularly updated to conform to the evolving musical tastes of their targeted consumers.

Like music, scents have long been used in the marketing of goods and services. The aroma of baking cookies, with its homey associations, has often been used to market houses; the alarming odor of burnt wood has been used to sell fire insurance policies to protect such property.¹⁶⁸ Moreover, new scent delivery systems that capitalize upon existing technologies like ink-jet printing and smartphones, are rapidly becoming a means

¹⁶⁴ Broadcasting music recordings has also been used effectively to alienate undesirables from commercial spaces. See *Twilight of the Yobs: How Classical Music Helps Keep Order*, THE ECONOMIST, Jan. 6 2005 at XX.

¹⁶⁵ See Lindström, *supra* note XX (noting that in Disney World "carefully choreographed sound is piped through the entire park. Even the bird sounds are controlled. It's a whole environment designed to capture the hearts of children and waken the child within each adult").

¹⁶⁶ A GAP shop in San Francisco enables customers to use smart phones to select the muzak they hear while shopping. See Gap pilots in-store DJ system, lets customers pick and play music, Venturebeat, <http://venturebeat.com/2011/11/21/roqbot-gap/>. It seems unlikely, however, that retailers would ever provide customers the wondrous capacity simply to *turn off* a soundtrack.

¹⁶⁷ See Prochnik, *supra* note XX.

¹⁶⁸ In the 1930s, a Connecticut home insurance firm impregnated their advertising brochures with the scent of charred wood. See Marston Bogert, *Your Nose Knows*, 39 SCI. MONTHLY 345 (1934). Such uses of scents capitalize on their potential to conjure powerful memories instantaneously, a phenomenon known as the "Proustian effect". See Sarah Dowdey, Does What You Smell Determine What You Buy?, *How Stuff Works, Money/Business/Marketing*, <http://money.howstuffworks.com/scent-marketing.htm>. "When you first perceive a scent, you connect it to an event, person or thing. When you smell the scent again, it often triggers memory in the form of a conditioned response... smell can also activate the subconscious and influence your mood. Instead of reminding you of specific details from [a] vacation, [an] ocean scent might make you feel content or happy." *Id.*

of communicating scents, particularly in connection with advertising and entertainment.¹⁶⁹

Marketers increasingly use fragrances, however, not to conjure a narrowly defined good or service, but rather to mark an overall environment in which retail customers purchase the goods or services of a particular seller.¹⁷⁰ This practice is not limited to sellers of luxury goods and services; today “... marketing using scent is catching on among retailers and in car showrooms, sports stadiums, airports, banks and apartment buildings that seek to distinguish themselves with customers via the deeply influential sense of smell.”¹⁷¹

The air in the lobbies of all Omni hotels, for instance, is infused with the scent of lemongrass.¹⁷² Omni anticipates that its repeat customers will learn to associate this scent with not only comfortable accommodations, but also specifically those offered by Omni. Hyatt’s objectives in their use of fragrance are more nuanced than Omni’s. Hyatt scents the air of the public spaces of each of its sumptuous “Park Hyatt” properties with a different bespoke fragrance that is also used to scent the lotions, soaps, and candles liberally sprinkled throughout the hotels’ public and private spaces.¹⁷³ Hyatt hopes that because customers will encounter one of these bespoke fragrances *only* at the hotel in which it is deployed, they will associate it not with “Hyatt” -- whose properties range from relatively austere to luxuriant -- but with a particular top-tier Hyatt hotel that is

¹⁶⁹ See Roxie Hammill & Mike Hendricks, *Scent Received, With a Tap of a Smartphone*, N.Y. TIMES, July 8, 2015 at B8 (discussing “Scentee”, “oPhone Duo” and other mechanisms developed to generate specific scents in response to digitally communicated instructions).

¹⁷⁰ “The real action, however, lies in projecting olfactory character into indoor commercial spaces. This application has been fully embraced in one large business sector: the gaming industry. Las Vegas is the trend’s epicenter; half the major properties on the Strip have scent systems. The MGM Grand has deployed as many as nine scents simultaneously around its property and the Venetian features a corporate logoscent called ‘Seduction.’” Lindstrom, *supra* note XX at 171.

¹⁷¹ Alexia Elejalde-Ruiz, *For Branding, Many Places Adopt Signature Scents*, L. A. TIMES, April 14, 2014 at XX. Even Goodwill Industries now infuses the air of their retail shops with a bespoke fragrance. *See id.* Goodwill’s motivations for doing so, however, diverge from those of a retailer like Bloomingdales. Bloomingdales scents its air to *promote* an atmosphere of luxury and exclusivity; Goodwill uses fragrance to *counter* an atmosphere of frugality, if not penury, associated with the sale and acquisition of used apparel and to assuage flickering concern on the part of buyers as to the cleanliness and odor of the merchandise.

¹⁷² See L. Aruna Dhir, *Scent of a Hotel*, 4 Hotelier, <http://www.4hoteliers.com/features/article/8037>.

¹⁷³ See Hyatt, *A New Scent at Park Hyatt Zurich*, <http://newsroom.hyatt.com/2008-05-01-A-New-Scent-At-Park-Hyatt-Zurich> (discussing how parfumeur Blaise Mautin creates different scents for Hyatt depending upon the location of the hotel; Zurich’s commercial vibe, for example, is captured in an astringent scent).

purposefully distinct from all other Hyatt properties.¹⁷⁴

Retailers scent their salesrooms hoping to imprint on customers' memories a positive association between a fragrance and the experience of shopping at their stores. Retailers may do so also to promote sales of the fragrance itself, like Abercrombie & Fitch's *Fierce*. The distinctive environment of this retailer is a carefully manufactured mix of: visual elements like dim lighting, and exiguously dressed and physically fit young clerks; an aggressively loud soundtrack of popular music that teenagers find appealing; and an atmosphere constantly infused with the scent of *Fierce*, the retailer's "signature" scent. *Fierce*, sold as a "cologne" (i.e., perfume marketed to men), body wash, and candles, is "[k]nown as the world's hottest fragrance, *Fierce* is a symbol of masculinity and great American achievement".¹⁷⁵ In other words, the retailer's hypertrophic sensory ambiance is intended to evoke that of attractive nuisances like Los Angeles's Sunset Strip music "clubs" that entice the same customers that Abercrombie targets: just-legal teenagers untethered from their parents, but in possession of their credit cards.¹⁷⁶

U.S. Trademark Protection for Trade Dress

Trade dress is the "total image and overall appearance" of a product, or the totality of elements that "may include features such as size, shape, color or color combinations, texture, graphics."¹⁷⁷ A product's trade dress, therefore, may be a concatenation of elements that are not separately protectable as trademarks. The amalgamation of these elements is protectable because of its capacity to identify the source of a product or service.¹⁷⁸ In this respect a trade dress whole is greater than the sum of its parts.

The trade dress of a product or service might also be the combination of separately protectable marks. If, for instance, a computer manufacturer tagged its products with an image of a lemon, colored them a bright yellow, and imbued their laptops and peripherals with a lemon scent, all three tags contribute to the products' trade dress despite the fact

¹⁷⁴ "Global Hyatt offers... more than 750 hotels in more than 45 countries." *Id.*

¹⁷⁵ Abercrombie & Fitch, *Fierce*, <http://www.abercrombie.com/shop/us/mens-fierce>. *Fierce* was created by Christophe Laudamiel, a flamboyantly gay *parfumeur* from France. See <http://www.fragrantica.com/news/Interview-with-Christophe-Laudamiel-5381.html>.

¹⁷⁶ Abercrombie & Fitch is a "retailer of men's and women's casual clothing, such as t-shirts, outerwear, sweatshirts, woven shirts, sweaters, jeans, khakis, shorts, baseball caps, belts, socks, and other accessories . . . designed primarily to appeal to young men and women of college age." *Abercrombie & Fitch Stores, Inc. v. Am. Eagle Outfitters, Inc.*, 280 F.3d 619, 624 (6th Cir. Ohio 2002).

¹⁷⁷ United States Patent & Trademark Office, *Trademark Manual of Examining Procedure*, §1202.02 (Registration of Trade Dress) (2015).

¹⁷⁸ See *Two Pesos v. Taco Cabana*, 505 U.S. 763 (1992) (finding that the overall décor of the respondent's restaurant was inherently distinctive, and therefore protectable trade dress, even though respondent had not demonstrated that this décor had acquired secondary meaning).

that each of them might be separately protected as a trademark when applied to computing machinery.

Despite the fact that trade dress now can be registered in the United States as trademarks on the Principal Register,¹⁷⁹ the trade dress of most products and services have not been registered.¹⁸⁰ This is because the trade dress of a product or service, like a trade secret, is typically developed incrementally over time, and its value often becomes apparent to the owner only when another tries to capitalize upon it. Also, trade dress tends to be more protean than word and design marks. For example, whereas the hairstyle and apparel of Betty Crocker or the Morton Salt Girl needs to be updated only every few decades or so, the soundscape of a department store must be refreshed much more frequently to retain its potency.¹⁸¹

Moreover, trade dress often combines non-traditional marks like sounds, colors, and scents that retailers use increasingly to create a deeper emotional response in consumers than that engendered by purely visual marks.¹⁸² In recent decades, as these non-traditional marks and trade dress have become more prevalent, U.S. courts have recognized their capacity, like that of traditional word and design marks, to enable consumers to distinguish among sources of goods and services. Two Supreme Court cases in particular have established a vastly larger sphere of protectable trademarks than that of half a century ago.

In its 1992 decision in *Two Pesos, Inc. v. Taco Cabana, Inc.*, the Supreme Court determined that trade dress was entitled to the same protection as that afforded word and design trademarks.¹⁸³ The parties were small Mexican fast food chains that deployed similar décor in their restaurants. Taco Cabana was established seven years earlier than Two Pesos, and claimed that Two Pesos infringed Taco Cabana's trade dress by using a style of interior decoration that was confusingly similar to theirs. The plaintiff's description of its trade dress was more discursive than those typically used for word or

¹⁷⁹ Marks that are not inherently distinctive, but otherwise meet registration requirements, may be registered on the Secondary Register. See Glynn S. Lunney, *The Trade Dress Emperor's New Clothes: Why Trade Dress Does Not Belong on the Principal Register*, 51 HASTINGS L.J. 1131 (2000) (discussing significance of registration on the Principal rather than Supplemental Register).

¹⁸⁰ See 1-2 GILSON ON TRADEMARKS § 2A.01 (noting that “although there is no empirical evidence, it appears that most trade dress is not registered and may instead be judicially protected under Section 43(a) of the Lanham Act”).

¹⁸¹ See General Mills, *The History of Betty Crocker*, www.generalmills.com/~media/Files/history/hist_betty.pdf; Morton Salt, *History of the Morton Salt Girl*, <http://www.mortonsalt.com/our-history/history-of-the-morton-salt-girl>.

¹⁸² See 1-2 GILSON ON TRADEMARKS § 2.11(citing Martin Linstrom's *BRAND Sense: Build Powerful Brands through Touch, Taste, Smell, Sight, and Sound*, in which the author argues that given the overload of information in today's marketplace, retailers must develop multisensory brands to reach consumers).

¹⁸³ See *Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 767 (1992).

design marks, comprising not only the identification of specific ornamental objects like “artifacts, paintings, and murals,” but also color schemes and architectural features like “a stepped exterior,” and “bright awnings and umbrellas.”¹⁸⁴

A district court jury found Two Pesos liable for trademark infringement, having determined that that Taco Cabana’s décor was protectable trade dress because it was inherently distinctive, and despite the fact that the plaintiff had not demonstrated that its trade dress had acquired secondary meaning.¹⁸⁵ The Fifth Circuit upheld the lower court’s judgment and Two Pesos appealed this decision to the Supreme Court. The Supreme Court entertained the dispute because Second Circuit precedent conflicted with that of the Fifth in establishing that, unlike a registered trademark, unregistered trade dress like the plaintiff’s could obtain protection under the Lanham (Trademark) Act only if it were inherently distinctive *and* had acquired secondary meaning through use in commerce.¹⁸⁶

In its decision in *Two Pesos*, the Supreme Court subscribed to the Fifth Circuit’s understanding of the broad scope of protection available to trade dress under the Lanham Act. Because trade dress serves exactly the same function as trademarks, the Court reasoned, there is no reason why trade dress should be subject to more stringent standards than traditional registered marks like words and designs, to obtain protection under the federal statute.¹⁸⁷

Three years later, in *Qualitex Co. v. Jacobson Prods. Co.*, the Supreme Court further accommodated trade dress as protectable information by determining that a single color employed as trade dress could constitute a valid trademark.¹⁸⁸ The single color at issue was a bilious green/gold hue that Qualitex used on the dry cleaning pads they manufactured.¹⁸⁹ When Jacobson appealed the district court’s finding it liable for infringing Qualitex’s single-color trademark, the Ninth Circuit court overturned this decision finding that color alone could not qualify for trademark protection.¹⁹⁰ Qualitex, in turn, appealed to the Supreme Court that heard the case in order to resolve contradictory precedent from various federal circuit courts on the validity of single-color trademarks.¹⁹¹

¹⁸⁴ *See id.* at 764.

¹⁸⁵ *See id.* at 766. The plaintiff’s exhibits of images of the competing restaurants suggest that the district court jury was likely swayed in their verdict of infringement by the fact that the defendant not only copied the plaintiff’s colors, and architectural features, but also the size and arrangement of these features, down to the flower pots along an exterior wall. *See* <http://cfile234.uf.daum.net/R400x0/2253404851E3AC5F1B4043>.

¹⁸⁶ *See Two Pesos, Inc.*, 505 U.S. at 767 (1992).

¹⁸⁷ *See id.* at 766.

¹⁸⁸ *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159 (U.S. 1995).

¹⁸⁹ *See id.* The pads, sold to dry cleaning establishments, look like ironing board covers.

See Qualitex, SunGlow Press Pads, <http://www.qualitexco.com/http/pads.html>.

¹⁹⁰ *See Qualitex Co. v. Jacobson Prods. Co.*, 13 F.3d 1297 (9th Cir. Cal. 1994).

¹⁹¹ *See Qualitex* 514 U.S. at 161.

The Supreme Court overruled the Ninth Circuit and upheld the validity of Qualitex’s single-color trademark registration. Like the multifaceted décor indicating Taco Cabana’s restaurant services, the particular shade of green with which Qualitex “dressed” its products distinguished them from those of others, and served no other practical purpose. Moreover, Qualitex had used the color in this capacity for over thirty years, by which it had acquired distinctiveness as consumers came to associate it with this company’s product.

Qualitex’s trade dress gradually matured into a protectable trademark as it developed secondary meaning through ongoing use in the marketplace. Taco Cabana’s décor, on the other hand, was found to be inherently distinctive and therefore did not require a similar incubatory period in which to establish its eligibility for trademark protection. In other words, it is only through ongoing exposure to a single color used to dress a product that consumers will begin to link that particular color with that product’s manufacturer. This iteratively built association renders the color protectable despite the fact that consumers may have encountered – or even associate – it with unrelated products. Complex trade dress, on the other hand, like the multifaceted décor of Taco Cabana, tends to be unique, and therefore likely immediately to be associated by consumers with the source of the product or service it is “dressing”.

Fragrance as Trade Dress

Given the rapidly growing practice among retailers of consistently perfuming the air of their shops, it is only a matter of time before market competitors will assert unfair competition claims based on another’s use of a particular fragrance as part of their trade dress. There are, however, a number of idiosyncrasies particular to fragrance trade dress that may condition its trademark protection.

Retailers typically do not own the intellectual property (i.e. copyright) in the musical works that they use as part of their trade dress. They must, therefore, pay royalties for the performances of these works broadcast in their stores.¹⁹² The legitimate *use* of another’s copyrightable expression might, however, become part of the user’s legally protectable multisensory trade dress.¹⁹³ Of course the legitimate use of another’s copyrighted material does not provide the retailer any legal interest in the music or the recordings themselves.

¹⁹² See Copyright Act of 1976, 17 U.S.C. §106 (2012). These royalties are managed by performing rights organizations, the largest of which is ASCAP. See <http://www.ascap.com>. “Mom & Pop” restaurants and retail establishments are exempt from this requirement. See *id.* §110.

¹⁹³ See Kimberlianne Podlas, *I Do Not Endorse This Message! Does a Political Campaign's Unauthorized Use of a Song Infringe on the Rights of the Musical Performer?*, 24 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1 (2013) (arguing that performers of copyrighted musical works should not be able to prevent uses of their performances that are legitimate under copyright law, based on trademark claims).

While sound marks typically comprise merely a few non-musical sounds or pitches – like NBC’s – a larger musical work, like a jingle, can also function as a trademark.¹⁹⁴ The efficacy of such marks, however, may depend upon consumers’ ongoing familiarity with the words of the jingle that identify the retailer or brand. Accordingly, while NBC’s sound mark continues to be effective, that of Mr. Softee, for instance, has become genericized.¹⁹⁵ Today the tinkling sound of the Mr. Softee jingle, invariably heard without its long-forgotten words, conjures the sale by any number of purveyors of aerated ice cream sold from itinerant trucks.¹⁹⁶ In fact, *any* singsong tune rendered in a chimey timbre sounding from a truck on a city street during the summer will conjure ice cream and popsicles.¹⁹⁷

Retailers are less legally constrained in their deployment of fragrance than of music in their public sales spaces.¹⁹⁸ Because fragrances are not copyrightable works, their release in communal spaces, even commercial spaces, is not regulated by the copyright performance and display rights applicable to musical and visual artistic works respectively.¹⁹⁹ Many small retailers routinely scent their atmospheres using well-known

¹⁹⁴ *See id.*

¹⁹⁵ Mr. Softee, Inc. could still assert copyright to control performances of their registered song, written by jingle composer Les Waas in 1958. *See* Daniel Neely, *Ding, Ding!: The Commodity Aesthetic of Ice Cream Truck Music*, in *MOBILE MUSIC STUDIES*, VOL. II 155 (2014). In fact, Les Waas’s melody is highly derivative of the English Folk tune, “How many miles to Babylon.” *See* Eloise Hubbard Linscot, *FOLK SONGS OF OLD NEW ENGLAND* 18 (1939) (providing words and music notation of the song).

¹⁹⁶ The same fate did not befall Coca Cola Company’s jingle “I’d Like to Buy the World a Coke” despite the fact that Coca Cola later authorized the use of its melody in the pop song “I’d Like to Teach the World to Sing,” recorded by The Hillside Singers. *See* Library of Congress, *American Memory, Fifty Years of Coca-Cola Television Advertisements, The “Hilltop” Ad: The Story of a Commercial*, <http://lcweb2.loc.gov/ammem/ccmphtml/colaadv.html>. This is because whenever Coca-Cola advertised its products using the jingle, the words identifying Coca-Cola were always heard along with the melody.

¹⁹⁷ *See* Neely, *supra* note XX at 146 (noting that the sound of ice cream truck music is not Pavlovian – i.e. stimulating a reflexive response to want ice cream – but rather plays on an “anamnesis” conditioned on the ability to recognize a specific product through sound).

¹⁹⁸ Health regulations rather than intellectual property rights are more likely to affect a retailer’s use of fragrances in commercial and public spaces. *See* Stuart Elliott, *Joint Promotion Adds Stickers to Sweet Smell of Marketing*, *N.Y. TIMES*, Apr. 2, 2007, at C5 (discussing the San Francisco’s Municipal Transportation Authority’s order to the California Milk Processor Board to remove chocolate-scented advertisements posted near public bus stops); Rachel Herz, *THE SCENT OF DESIRE* 14 (2007) (noting that Halifax, Nova Scotia has enacted regulations making illegal the wearing of fragrances in public).

¹⁹⁹ *See* Copyright Act of 1976, 17 U.S.C. §106 (2012). The possibility of copyright protection for fragrances raises the question how moral rights of attribution, reputation,

brands of fine fragrances through various delivery methods: aerosols, scented candles, potpourris, etc. The brands do not object to this practice because it likely promotes sales of these scented products among customers who inquire about what they smell. The fragrance brands would likely object, however, if a large retailer or service provider, without authorization, used their air conditioning system to disseminate one of their fragrances, on an ongoing basis, throughout a department store, airport, cinema, etc.

Once Chanel has sold a bottle of its well-known *No. 5* the company has virtually no legal means of controlling how the buyer uses the product. If, however, Omni Hotels began to scent all of their properties with it, rather than using their bespoke lemongrass fragrance, Chanel would likely assert a claim of unfair competition. Even if Omni used no visual evidence of the brand, Chanel would argue that by “marking” their air with the well-known scent of *No. 5* Omni was attempting to lead consumers to believe that its mid-range hotels are legitimately associated with this purveyor of top-tier luxury products. Such an orchestrated proximity might sully Chanel’s image -- just as Apple Computers’ start-up sound heard on reputedly shoddy machinery manufactured by France’s Compagnie des Machines Bull, would derogate Apple’s brand.²⁰⁰ Therefore, even though no other business, including Chanel, uses *No. 5* as trade dress, Chanel could prevent any such use if it can demonstrate that consistently scenting the air of a commercial space would likely create confusion “as to the source, sponsorship, or association between goods or services.”²⁰¹

Another aspect of fragrance relevant to its trademark capacity is its relatively brief period of perceptibility. While consumers may “tune out” the sounds and images of a retailer’s trade dress they cannot stop hearing and seeing them unless they block or replace the sounds and images by donning headphones, blinders, or similar paraphernalia the use of which elicits in bystanders ambivalence as to the mental stability of the wearer. On the other hand, we become habituated to scents relatively swiftly.²⁰² Once we have

etc. would be applicable to them under copyright regimes like that of France, that provide such protection. See Code de la Propriété Intellectuelle [Intellectual Property Code] L. 121-1- L. 121-4 (1992).

²⁰⁰ See John Tagliabue, *Why European Computer Makers Flop*, N.Y. TIMES (Oct. 7, 1996) at XX.

²⁰¹ Lanham Act Section 43(a), 15 U.S.C. § 1125 (2012).

²⁰² See Jennifer Chen, *Human Olfactory Perception: Mechanism, Characteristics, and Functions 3* (May, 2013) (unpublished Ph.D. dissertation, Rice University) (on file with author). “The longer you are exposed to an odor, the more you adapt to it. Step into a garlic factory and the reek will overwhelm you. A few minutes later its intensity fades, and after an hour you might not be able to smell garlic at all, no matter how hard you try. Work there a few months and this adjustment will happen almost as soon as you step in the door.” Avery Gilbert, *WHAT THE NOSE KNOWS: THE SCIENCE OF SCENT IN EVERYDAY LIFE* 85 (2008).

perceived an odor our awareness of it rapidly wanes even though we continue to be exposed to the same concentration of it in the atmosphere.²⁰³

Because humans quickly become accustomed to scents, fragrances are more likely to be protected as trade dress when used in a multisensory combination of various stimuli like colors, images, and sounds. When one first enters an interior space the perception of a signature fragrance may be the first confirmation that one is visiting a particular retailer, hotel, spa, etc. As that perception wanes, however, visual and aural stimuli become more prominent in consumers' awareness of a particular vendor. The consistent combination of a particular fragrance with other visual and aural stimuli, therefore, will likely *strengthen* the association of that fragrance with a specific retailer.

The greater the number of sensory elements comprising a trade dress the more likely it is to be protectable as a distinctive indication of a particular source of goods or services. Taco Cabana's trade dress was protectable only because it combined a number of architectural and decorative elements; the murals, umbrellas, and interior design and colors only when combined become a distinctive indicator of Taco Cabana's restaurant services. Accordingly, if Abercrombie were to claim a trade dress comprising visual elements as well as sounds and scents, it would be difficult for this retailer to establish unfair competition based upon a competitor's use of a discrete element of Abercrombie's multisensory trade dress.

The capacity for fragrance trade dress to obtain the same protection afforded traditional word and design trademarks may directly benefit retailers and fragrance brands, but not the industrial manufacturers of fragrance blends. A fragrance manufacturer cannot protect fragrances as trade dress for its products or services because fragrances *are* its products and services. Fragrances cannot, therefore, be inherently distinctive, or acquire secondary meaning, by which consumers can distinguish one fragrance house from another.

Fragrance manufacturers sell even fine fragrances to retail products manufacturers like couture houses and cosmetic companies that package and label commissioned blends under their own brands. These brands, like the retailers, hotel chains, airports, etc., that scent their atmospheres, do not publicize the fact that their fragrance merchandise or scented atmospheres were produced by the handful of companies that manufacture fragrances on an industrial scale. In short, large fragrance manufacturers are akin to

²⁰³ *See id.* It is this habituation that prompts retailers of perfumes to keep at hand a saucer of coffee beans, the odor of which contrasts sharply with that of fine fragrances, thereby enabling customers to "reset" their olfaction, allowing them to perceive fragrances anew. Nevertheless, Avery Gilbert notes that: "the bean meme is now a fixture in perfume retailing... The Jo Malone display in Saks had them [coffee beans] in an apothecary jar with a metal lid. It's all good fun and marketing, but there is not a jot of science behind it. (There are twenty-seven aroma impact molecules in roasted Arabica coffee – how could smelling all these help clear the nose?). *Id.* at 108.

ghostwriters who cede copyright in their writings in exchange for fees from the commissioning parties to whom the published works are attributed.²⁰⁴

While retailers, and service providers like hotels, may be the primary beneficiaries of fragrance trade dress protection, fragrance manufacturers might also indirectly capitalize on the growing accommodation under U.S. trademark law for the protection of non-traditional trade dress. Ghostwriters are, of course, aware of the economic value of the copyrights that they assign to the attributed author of their works, and this value is reflected in their fees. Accordingly, the fee to ghostwrite, on behalf of a well-known politician, for instance, a report on federal legislation, will be less than that for a draft of the politician's "autobiography". This variance is at least partially based upon the copyright protection that underlies the profits from the sale of hundreds of thousands of copies of the autobiography, which does not adhere to the report on legislation. A "ghost" songwriter will similarly adjust upwards his fee for writing a jingle that will obtain both copyright and trademark protection.

The fact that a commissioned fragrance may now be deployed and protected as trade dress adds economic value to it that is not available to fragrances distributed exclusively as retail products. Given that fragrances increasingly function as valuable and legally protectable branding agents, fragrance creators should factor this development into the fees they charge for creation and production of products deployed in this innovative manner.

V. CONCLUSION

Over the past twenty-five years advances in analytic technologies, and increasingly stringent government disclosure regulations, have challenged fragrance manufacturers' efforts to maintain exclusive control over their most valuable assets: proprietary information relating to the creation and manufacture of fragrances.²⁰⁵ As discussed earlier, once this information has been disseminated there is little recourse under copyright or trade secret law to stanch its distribution or implementation.²⁰⁶ Patents also

²⁰⁴ See Roberta Kwall, *THE SOUL OF CREATIVITY: FORGING A MORAL RIGHTS LAW FOR THE UNITED STATES* 91 (2009) (suggesting an inherent "degradation" of both attributed author and ghostwriter when the ghostwriter creates most of a literary work but without attribution).

²⁰⁵ See, e.g., United Nations Economic Commission for Europe, *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*, June 25, 1998, 2161 U.N.T.S. 450 (granting the public right of access to any information held by European Union agencies relating to emissions into the environment); International Fragrance Association, North America, *Federal Regulatory Chart*, <http://ifrana.org/advocacy/laws-and-regulations/federal/> (identifying seven federal agencies involved in regulating fragrance ingredients and manufacturing in the United States).

²⁰⁶ See *supra*, discussion accompanying note XX.

are of limited efficacy to fragrance manufacturers, effectively protecting only newly discovered “captive” molecules.²⁰⁷

Johann Böttiger’s enterprise (Meissen Porcelain) lost its most valuable, and seemingly mission-critical, trade secret within decades of its establishment. Yet, hundreds of years after what would appear to have been a devastating loss, Meissen Porcelain is flourishing not only because it diversified its merchandise, but more importantly because it capitalized upon the prestige associated with the quality of its porcelain, and also its market lead, made possible by the fact that it was the first European enterprise capable of producing it.

Like Meissen Porcelain, major fragrance houses have long histories, most having existed for well over a century.²⁰⁸ Unlike Meissen, however, these fragrance companies have functioned as ghostwriters, creating and manufacturing products ultimately sold as emanations of their customers -- couture houses, retailers, consumer products companies, etc. To an increasing extent, however, these fragrances are not merely sold by retailers as consumer products but are also used, like broadcast recordings of musical works, as a component of a larger trade dress by which consumers identify a particular retailer or service provider.

Copyright owners of musical works cannot control, or derive financial benefit from, private performances of their songs. When their copyrighted compositions are performed in public, however, they are legally entitled to receive royalties for these uses of their works.²⁰⁹ Like copyright owners, fragrance manufacturers and retailers cannot control, or derive financial benefit from, private uses of their legitimately acquired products. As these products are increasingly deployed in public – especially commercial – spaces, however, they acquire value beyond that ascribable to their hedonic attributes, by contributing to the branding of a commercial product or service. In other words, just as a copyrighted song realizes greater economic value through public performances, a fragrance acquires greater economic value when it becomes part of a legally protectable trade dress through its deployment in a commercial public space.

As works of fragrance are not copyrightable, their diffusion in public spaces cannot be regulated as performances of them. When such use results in the establishment of legally

²⁰⁷ See *supra*, discussion accompanying note XX.

²⁰⁸ Givaudan, the largest fragrance manufacturer, dates its origins to 1768. See Givaudan, Heritage of Growth, <https://www.givaudan.com/our-company/rich-heritage>. IFF was established in 1889. See International Flavors & Fragrances, Inc., History, <http://www.iff.com/Company/IFF-History>. Firmenich was established in 1895. See Firmenich, Company, http://www.firmenich.com/en_INT/company.html. Symrise merged Haarmann & Reimer (1874) and Dragoco (1919). See Symrise, History, <https://www.symrise.com/company/organization/history/>. Only Takasago was established in the twentieth century. See Takasago, Company Info, <http://www.takasago.com/en/aboutus/index.html>.

²⁰⁹ See *supra*, note XX and accompanying text.

protectable trade dress, however, fragrance creators could acquire a portion of the economic value of this interest, in the creation of which they have played a significant role. Like Meissen Porcelain, fragrance manufacturers can never recapture their once-secret information that is now known, or readily and legitimately ascertained, by others. By capitalizing on the value stemming from the increasing *use* of fragrances in establishing protected brands fragrance houses might find through trademark law partial compensation for this loss of intellectual property.