OPINION OF ADVOCATE GENERAL RUIZ-JARABO COLOMER
delivered on 6 November 2001 [1]

1. The reference for a preliminary ruling submitted by the Bundespatentgericht (Federal Patents Court) (Germany) concerns the interpretation of Article 2 of First Council Directive 89/104/EEC of 21 December 1988 to approximate the laws of the Member States relating to trade marks [2] (hereinafter 'the First Directive').

2. The Bundespatentgericht is asking the Court for an interpretation of the concept 'sign capable of being represented graphically', within the meaning of Article 2 of the First Directive.

In particular, it wishes to know whether signs such as odours, which cannot be directly represented graphically and consequently cannot be perceived visually, but which can be reproduced using certain aids, can be trade marks. Should this be the case, the German court further asks the Court what the requirements are for the graphical representation of olfactory signs.

I — Legal framework

1. *Community law: the First Directive*

3. The purpose of the First Directive is to approximate the trade mark laws of the Member States in order to remove disparities which may impede the free movement of goods and freedom to provide services or distort competition within the common market. However, the intervention of the Community legislature, not being intended to achieve full-scale approximation of these laws, remains limited to certain aspects concerning trade marks acquired by registration. [3]

4. Article 2 of the First Directive provides:

'A trade mark may consist of any sign capable of being represented graphically, particularly words, including personal

1 — Original language: Spanish.
2 — OJ 1989 L 40, p. 1.
3 — See the first, third, fourth and fifth recitals in the preamble to the First Directive.

names, designs, letters, numerals, the shape of goods or of their packaging, provided that such signs are capable of distinguishing the goods or services of one undertaking from those of other undertakings.'

5. Article 3 provides:

'The following shall not be registered or if registered shall be liable to be declared invalid:

(a) signs which cannot constitute a trade mark;

...'

2. *German legislation*

6. In order to transpose the First Directive into German law, the German legislature enacted the Gesetz über den Schutz von Marken und sonstigen Kennzeichnungen (German Law on the Protection of Trade Marks and other Identification Marks, hereinafter 'the Markengesetz') of 25 October 1994. [4]

7. Paragraph 3(1) of the Markengesetz defines signs which can constitute a trade mark in the following terms:

'All signs, particularly words, including personal names, designs, letters, numerals, acoustic signs and three-dimensional forms, including the shape of goods or of their packaging and other aspects of their presentation, including colours and colour combinations, which are capable of distinguishing the goods or services of one undertaking from those of other undertakings, may be protected as a trade mark.'

8. Paragraph 8(1) of the Markengesetz provides:

'Signs eligible for protection as trade marks within the meaning of Paragraph 3 which are not capable of being represented graphically shall not be registered.'

4 — BGBl. 1994 I, p. 3082.

II — Facts of the main proceedings and questions referred for a preliminary ruling

9. Mr Sieckmann deposited with the Deutsches Patent- und Markenamt (German Patent and Trade Mark Office, 'the Office') an 'olfactory mark' as a distinctive sign of the services in Classes 35, 41 and 42. [5] That 'olfactory mark' consisted in:

'the pure chemical substance methyl cinnamate (= cinnamic acid methyl ester [6]), whose structural formula is set out below. Samples of this olfactory mark can also be obtained via local laboratories listed in the Gelbe Seiten (Yellow Pages) of Deutsche Telekom AG or, for example, via the firm E. Merck in Darmstadt.

C_6H_5-CH = CHCOOCH$_3$'

10. In the event of the description not being sufficient to satisfy the requirements of Paragraph 32 of the Markengesetz, the applicant declared his consent in the alternative to an inspection of the files relating to the deposited mark pursuant to Paragraph 62(1) of the Markengesetz and Paragraph 48(2) of the Markenverordnung implementing that law. [7]

11. The applicant also submitted an odour sample in a container and stated that the scent was usually described as balsamically fruity with a slight hint of cinnamon.

12. The Trade Mark Department for Class 35 refused the application on two grounds: firstly, the sign was not capable of constituting a trade mark or of being represented graphically (Paragraphs 3(1) and 8(1) of the Markengesetz), and secondly, it lacked any distinctive character (Paragraph 8(2)(1) of the Markengesetz).

13. The applicant appealed to the Bundespatentgericht against that refusal. That court held that in theory odours may be capable of distinguishing the goods of one undertaking from those of another, but it had doubts as to whether an olfactory mark can satisfy the condition of graphic representability under Article 2 of the First

5 — Class 35: Advertising; business management; business administration; office functions.
Class 41: Education; providing of training; entertainment; sporting and cultural activities.
Class 42: Providing of food and drink; temporary accommodation; medical, hygienic and beauty care; veterinary and agricultural services; legal services; scientific and industrial research; computer programming; services that cannot be placed in other classes.

6 — An ester is a chemical compound produced when a hydrogen atom in an organic or inorganic acid is replaced by alcohol radicals.

7 — BIPMZ Sonderheft, 1994, p. 156 et seq.

Directive. Since the Bundespatentgericht is of the opinion that the outcome of the main proceedings depends upon the interpretation of that condition, it has submitted the following questions to the Court:

'(1) Is Article 2 of the First Council Directive of 21 December 1988 to approximate the laws of the Member States relating to trade marks (89/104/EEC) to be interpreted as meaning that the expression "signs capable of being represented graphically" covers only this signs which can be reproduced directly in their visible form or is it also to be construed as meaning signs — such as odours or sounds — which cannot be perceived visually *per se* but can be reproduced indirectly using certain aids?

(2) If the first question is answered in terms of a broad interpretation, are the requirements of graphic representability set out in Article 2 satisfied where an odour is reproduced

(a) by a chemical formula;

(b) by a description (to be published);

(c) by means of a deposit; or

(d) by a combination of the abovementioned surrogate reproductions?'

III — Examination of the questions referred for a preliminary ruling

14. The Court is confronted here with an issue both stimulating and significant. The question is whether an odour can be registered as a trade mark and what conditions must be satisfied for this to be the case.

15. The study I shall undertake below in order to give an answer to the question submitted must start from the concept of a trade mark by examining its functions. It will involve departing from the realms of the purely legal and embarking on a journey into non-legal territory before returning to the realm of the legal imbued with the insight that will allow me to answer the question whether an odour is capable of registration as a trade mark and, consequently, of having the *status* which

the Community legal order ascribes to this form of intangible property.

1. *Functions of trade marks. Trade marks as a means of communication*

16. A trade mark is a sign, [8] the purpose of which is to distinguish the goods or services of one undertaking from those of another. This is plainly expressed in Article 2 of the First Directive. [9]

17. The distinction must be such that the consumer or end user is able to exercise complete freedom of choice between the possibilities presented to him [10] and thus to promote free competition in the market. The first recital in the preamble to the First Directive expresses a similar idea, stating that the purpose of the intended approximation of laws is to eliminate the disparities between the laws of the Member States which impede the free movement of goods, freedom to provide services and, ultimately, free competition. Trade mark law is 'an essential element in the system of undistorted competition which the Treaty seeks to establish and maintain', [11] and the intention of the Community legislature in approximating the laws of the Member States was to support this. The distinctive sign is therefore the starting point, with free competition as the objective. [12]

18. In order to achieve that objective a certain path must be followed and the means employed is none other than granting to 'the trade mark owner... an assortment of rights and powers [13] which are intended to reserve for him the exclusive right to use the distinctive sign and to protect the trade mark against competitors

8 — The question of what sort of a sign it is is precisely the question to be examined in this Opinion.

9 — Article 4 of Council Regulation (EC) No 40/94 of 20 December 1993 on the Community trade mark is couched in the same terms (OJ 1994 L 11, p. 1; hereinafter 'the Regulation'), and the laws of the Member States contain provisions to the same effect. Examples include: (a) Germany: Paragraph 3(1) of the Markengesetz; (b) Belgium, Luxembourg and the Netherlands: Article 1 of the Uniform Benelux Law on Trade Marks of 19 March 1962; (c) Spain: Article 1 of Law 32/1988 of 10 November on Trade Marks; (d) France: Article 711-1 of the Code de la propriété intellectuelle; (e) Italy: Article 16 of the Decreto Legislativo of 4 December 1992, No 480; (f) Portugal: Article 165(1) of the Código de propriedad industrial, confirmed by Decreto-Ley 16/1995 of 24 January; (g) United Kingdom: section 1(1) of the Trade Marks Act 1994. Beyond the borders of the European Union, the Lanham Act, which since 1946 has been the basic legal text on this kind of distinctive signs at federal level in the United States of America, defines trade marks and ascribes the same function to them. In Australia the Trade Marks Act 1995 similarly provides that the purpose of trade marks is to distinguish the goods and services of one undertaking from those of another (section 17(3)).

10 — In its judgment in Case C-10/89 *HAG GF* [1990] ECR I-3711, the Court stated that [the function of the trade mark... is] to guarantee the identity of the origin of the marked product to the consumer or ultimate user by enabling him without any possibility of confusion to distinguish that product from products which have another origin' (paragraph 14). The Court held to the same effect in Case C-517/99 *Merz and Krell* [2001] ECR I-6959, paragraph 22.

11 — Judgments in *HAG GF*, paragraph 13, and *Merz and Krell*, paragraph 21.

12 — Paradoxically, in order to ensure free competition in the market a right is created which represents a derogation from the general principle of competition, inasmuch as it enables the holder of that right to acquire exclusive rights to certain signs and indications. For this reason, Article 36 of the EC Treaty (now, after amendment, Article 30 EC) permits prohibitions or restrictions on imports, exports or goods in transit in Community territory, justified on grounds of the protection of industrial and commercial property.

13 — Acknowledged in Article 5 of the First Directive.

who wish to take advantage of its status and reputation'. [14] This is what has become known in the case-law of the Court as 'the specific object of a trade mark'. [15]

19. The object of a trade mark is to enable consumers to identify goods and services by their origin [16] and quality. [17] Both endow the goods covered by the trade mark with an image and a reputation: the reputation of the trade mark. [18] The matter is thus one of establishment of a dialogue between manufacturer and consumer. The manufacturer gives the consumer information in order to make him aware of the goods, and sometimes persuades him as well. [19] A trade mark is in reality communication. [20]

20. Communication means one person imparting something that he knows to another. [21] Consequently, every act of communication requires a sender, a message, a medium or channel for its transmission, and a recipient who can decipher or decode it. The code in which it can be expressed depends on the type of decoder the recipient uses to receive, comprehend and assimilate it. *Homo sapiens* is thus a recipient with a wide variety of decoders. [22]

14 — See points 31 and 32 of the Opinion which I delivered on 18 January 2001 in *Merz and Krell*. Accordingly, the owner of a registered trade mark enjoys protection where there is identity or a likelihood of confusion between his distinctive sign and that used by a third party, which includes the likelihood of association between his trade mark and that sign (see Articles 4(1) and 5(1) of the First Directive, and Cases C-39/97 *Canon* [1998] ECR I-5507, paragraph 18, and C-425/98 *Marca Mode* [2000] ECR I-4861, paragraph 34).

15 — See, in particular, *HAG GF*, paragraph 14, and Case C-63/97 *BMW* [1999] ECR I-905, paragraph 52. The relationship between the 'specific object' of a trade mark and the 'essential function' of this kind of industrial property in the case-law of the Court has been examined by I. de Medrano Caballero in 'El derecho comunitario de marcas: la noción de riesgo de confusión', *Revista de Derecho Mercantil*, No 234, October-December 1999, pp. 1522 to 1524.

16 — This is what is referred to as the essential function of a trade mark (*Canon*, paragraph 28, and *Merz and Krell*, paragraph 22). In his Opinion in Joined Cases C-108/97 and C109/97 *Windsurfing Chiemsee* [1999] ECR I-2779, Advocate General Cosmas stated that the essential function of a trade mark 'is, first, to identify an undertaking's goods and to distinguish them from other similar products (distinguishing function of the trade mark) and, secondly, to establish a link between them and a particular undertaking (guarantee of origin)' (point 27). The aim is not to identify a product with one undertaking in particular, but to identify it as one of the products designated by the same trade mark, although its origin may be unknown. The aim is that all products bearing the same trade mark should originate from the same manufacturer, regardless of that manufacturer's identity. See on that subject C. Fernández Novoa, *Fundamentos de derecho de marcas*, Editorial Montecorvo, Madrid 1984, pp. 46 to 49, and H. Baylos Corroza, *Tratado de derecho industrial*, Editorial Civitas, 2nd edition, Madrid, 1993, p. 817.

17 — The indication-of-quality function which provides the incentive for undertakings to invest in improving their goods and services. An undertaking should be 'in a position to keep its customers by virtue of the quality of its products and services' (*HAG GF*, paragraph 13). The Court held to the same effect in paragraph 21 of *Merz and Krell*.

18 — A function which consolidates the reputation or image.

19 — The advertising, and most disputed, function of a trade mark. More information about the functions of trade marks in relation to the new kinds of this form of industrial property can be found in M.L. Llobregat, 'Caracterización jurídica de las marcas olfativas como problema abierto', *Revista de Derecho Mercantil*, No 227, Madrid, January-March 1998, pp. 54 to 56, and M. D. Rivero González, 'Los problemas que presentan en el mercado las nuevas marcas cromáticas y olfativas', *Revista de Derecho Mercantil*, No 238, Madrid, October-December 2000, pp. 1657 to 1664.

20 — C.H. Fezer, *¿Cuándo se convierte un signo en marca?*, a report presented at the Symposium on the Community trade mark held in November 1999 at Alicante, puts forward the view that the trade mark is a communication symbol on the market; it acts like a code, bringing undertakings and consumers into contact in the market place (cited by M.D. Rivero González, op. cit.).

21 — On trade marks as information carriers, see S. Maniatis, 'Scents as Trademarks: Propertisation of Scents and Olfactory Property' in *Law and The Senses (Sensational Jurisprudence)*, edited by L. Bently and L. Flynn, Pluto Press, London-Chicago, 1996, pp. 217 to 235.

22 — See A. Polasso, 'La Comunicación inteligente' in *Humaniora*, website of the Faculty of Arts at the University of Göteborg (www.hum.gu.se), p. 61 et seq.

21. The entire human body is a sensory receptor, which means that perception of signs by consumers can be as varied as the senses at their disposal. [23]

2. *Signs capable of distinguishing, in particular, olfactory signs*

22. If the purpose of a trade mark is to enable the consumer to distinguish the goods and services offered to him by their origin, this process can take place through any organ he uses to communicate with the outside world. The distinctive sign can be perceived by the sense of sight, hearing, touch, smell or even taste. [24] In principle, any message capable of perception by the senses can constitute an indication for the consumer and consequently can be a sign capable of fulfilling the distinguishing function of a trade mark. [25]

23. Consequently, there is no reason in principle why trade marks should not be created by messages which differ from those capable of perception by the eye. [26]

24. Although any message which may be perceived through any sense can constitute a sign capable of identifying the goods of an undertaking, this innate capability is not

23 — See *Marcas sonoras y olfativas* in the bulletin produced by Henson & Co. Patentes y Marcas(http://publicaciones.derecho.org./henson/5.-_Noviembre_de_1999/2). This collection makes clear how 'we stand with our backs to the television on countless occasions in everyday life and, without turning our heads, can tell which product is being advertised just from the accompanying music or signature tune'.

24 — This idea was wonderfully expressed by J.W. von Goethe in the Preface to his *Farbenlehre (Theory of Colours)*: 'The colours are acts of light; its active and passive modifications.... Colours and light, it is true, stand in the most intimate relation to each other, but we should think of both as belonging to nature as a whole, for it is nature as a whole which manifests itself by their means in an especial manner to the sense of sight.
The completeness of nature displays itself to another sense in a similar way. Let the eye be closed, let the sense of hearing be excited, and from the lightest breadth to the wildest din, form the simplest sound to the highest harmony, from the most vehement and impassioned cry to the gentlest word of reason, still it is Nature that speaks and manifests her presence, her power, her pervading life and the vastness of her relations; so that a blind man to whom the infinite visible is denied, can still comprehend an infinite vitality by means of another organ.
And thus as we descend the scale of being, Nature speaks to other senses — to known, misunderstood, and unknown senses: so speaks she with herself and to us in a thousand modes.' (Preface to the First Edition of the Theory of Colours, translation by Charles Lock Eastlake; published by John Murray, London, 1840; republished by MIT Press, Cambridge, Massachusetts, and London, England, 1970).

25 — M.A. Perot-Morel, 'Les difficultés relatives aux marques de forme et à quelques types particuliers de marques dans le cadre communautaire', *Rivista di diritto industriale*, Year XLV (1996), Part 1, pp. 247 to 261, especially p. 257. This author goes on in her remarks to distinguish the senses of taste and touch, since signs based on taste or touch cannot be perceived independently of the articles they represent: the taste of a product can only be experienced by tasting it, and the softness of a fabric can only be felt by touching it (p. 260). Moreover, a sign could never be a trademark in these instances due to its lack of distinctive character: the taste of an apple describes an apple. A perception of taste can only be a trade mark if considered in a context other than as an impression left by tasting a certain product, e.g. the flavour of apple to characterise a range of cosmetics. However, in such an instance, in order to perceive the trade mark it would be necessary either to taste an apple — in which case the fruit itself would be the sign — or to try an apple-flavoured cosmetic product, in which case the distinctive sign would no longer be the taste, but the product itself. The same applies to the sense of touch, so I can state that only those signs and signals that can exist spatially, such as visual, auditory and olfactory signs, and can be perceived independently of the article of which they represent a characteristic, can be trade marks.
Cf. the work by S. Maniatis, op. cit., pp. 222 and 223, on the difficulty of identifying a product by smell before buying it.

26 — M.D. Rivero González (op. cit., p. 1646) confirms that market research studies have shown that the perception of stimuli by the consumer using senses other than sight when distinguishing products can be very useful for the communication that the trade mark seeks to achieve.

always the same. The reason for this is very simple: perception of the outside world by human beings differs, depending upon the sense or window through which it takes place. [27]

25. In neurophysiology, a distinction is generally made between 'mechanical' and 'chemical' senses. The first group consists of touch, sight and hearing, which are all easily comprehensible because they relate to the concept of shape and form (*gestalthaft*) and can be described relatively objectively. Characterisation of the latter group, the senses of taste and smell, is more problematic due to the absence of precise rules for determining their content. In Western culture, the senses of smell, taste and also touch are of lesser importance. For Plato and Aristotle, they were the senses that gave less pure and uplifting pleasure than sight and hearing. In the Europe of the Enlightenment, Kant presented them as unrewarding senses, while Hegel regarded them as incapable of providing real knowledge of the world or one's own self. Freud and Lacan banished them to the animal kingdom, associating the development of civilisation with the weakening of these senses. [28]

26. However, care must be exercised when speaking of the subjectivity and objectivity of the senses. There are no objective or subjective sensory organs. In the work cited above, Goethe asserted that the sense of sight and the perception of colours were clouded by relativism. [29] On the other hand, we know that the description of a work of music is not always the same, [30] depending on the listener and his sensitivities. After all, the person receiving a message is an individual with his own experience and unique capacity for perception. In other words, sensory perception can only be described as more or less perfect, and consequently the recipient's description of what he perceives will only be accurate to a greater or lesser degree.

27. It would be difficult at this level to attempt any general characterisation of the senses in order to confirm that sight is the most developed. The ability of the human eye to perceive colours is just as limited [31] as the ability of the sense of smell to perceive odours. Moreover, a description of

27 — Cf. my considerations on this in footnote 25.

28 — See O. Laligant, 'Des œuvres aux marches du droit d'auteur: les œuvres de l'esprit perceptibles par l'odorat, le goût et le toucher', *Revue de recherche juridique, Droit prospectif*, 1992, No 1, pp. 107 and 108, cited by J.-P. Clavier, '*Les catégories de la propriété intellectuelle à l'épreuve des créations génétiques*', Édition L'Harmattan, 1998, p. 248.

29 — 'Ich glaube, der Mensch träumt nur, damit er nicht aufhöre zu sehen' ('I think we dream only so that we can carry on seeing'), he said in *Elective Affinities* (Hamburg edition in 14 volumes, Volume 6, 'Wahlverwandtschaften', 10th. edition, 1989, C.H. Beck). There is nothing more personal than dreaming.

30 — The same applies to its interpretation.

31 — An example of this is the fact that when confronted with a catalogue of paint colours as used by a hardware shop, selecting a particular colour (pink, green or blue) from amongst the various shades (spread over 20 or 30 cards) is a real problem. The human eye can differentiate without likelihood of confusion between only three or four shades of the same colour. The average consumer is unable to distinguish closely-related or similar colours from one another (see M.D. Rivero González, op. cit, p. 1673).

a colour can be just as inaccurate and difficult as that of an odour. [32]

28. Where does the difference lie, then? Whereas the eye sees not just colours, but also shapes, [33] the sense of smell only permits perception of the 'colour' of an odour and never its 'outline'. [34] The sense of sight operates over a wider range and therefore has a wider range of perception. That, when defining a sign, is in my view the major difference between visual messages, and the olfactory messages which are of interest here.

29. In any case, I believe that the abstract ability of a sign, capable of perception by the sense of smell, to fulfil an identification function is completely beyond question. If the intention is to symbolise goods or services of a particular origin in order to distinguish them from those of a different origin, or if it is a question of evoking a specific source, a quality or the reputation of an undertaking, the best thing is to fall back upon a sense that, like the sense of smell, is undoubtedly, even persuasively, evocative. [35] M.D. Rivero states in the work cited above [36] that studies of the perception of odours have shown that the olfactory memory is probably the best one that humans possess. [37] The sense of smell is, because of its special function in the nervous system, very closely linked to the limbic structures that affect memories and emotions. [38] According to the latest discoveries in neurophysiology, memories and

32 — It should be remembered that colour cards on the market, for example, can show up to 1 750 nuances of colour shades (see M.D. Rivero González, op. cit., footnote 78, p. 1675).

33 — In his 'Notes on painting' (in *Diderot on Art - 1*, Yale University Press, New Haven and London, 1995, p. 196) Diderot wrote: 'Drawing gives a being form; colour gives it life.' The relationship between colour and form was explained vividly in 1975 by C. Metz in his work '*Lo percibido y lo nombrado*' (available on the Internet at 'www.otrocampo.com'). Metz said that when two items in a fashion magazine are of the same cut but different in colour, they are regarded as being the same garment in two 'shades', since our culture, reinforced by language, endows objects (shapes) with permanence. What changes is the attribute. If the two items were of the same colour but a different cut, nobody would think or say that the boutique had 'the same colour in two different garments'; instead, one would say 'two garments of the same colour'. Colour is the predicate: what we have are two separate objects, which are of the same colour.

34 — In truth, colours and odours pose similar problems in terms of registration as trade marks; this emerges from the study by M.D. Rivero González, cited above.

35 — P. Süskind, '*Das Parfum. Die Geschichte eines Mörders*', Diogenes Verlag, 1. Aufl., 1985, Zürich ('*Perfume: The Story of a Murderer*') tells the story of a man in 18th-century France with an extraordinary sense of smell, who causes numerous deaths around him with his fragrances until he is involved in a shocking scene of cannibalism. On page 107 et seq. he states: 'Es gibt eine Überzeugungskraft des Duftes, die stärker ist als Worte, Augenschein, Gefühl und Wille. Die Überzeugungskraft des Duftes ist nicht abzuwehren, sie geht in uns hinein wie die Atemluft in unsere Lungen, sie erfüllt uns, füllt uns vollkommen aus, es gibt kein Mittel gegen sie' ('*A scent has a power of persuasion greater than words, appearances, feelings or willpower. The power of persuasion of a scent cannot be resisted; it enters into us like the breathing of air into our lungs, invading and perfectly fulfilling us. There is no defence against it*').

36 — Page 1677.

37 — An article appeared in *Le Monde* on Saturday, 7 July 2001 (p. 16) with the title 'Fouiller la mémoire pour accroître l'effet des publicités', stating that researchers in cognitive sciences and neurophysiology were helping advertisers to improve the memorisation of advertising messages.

38 — C. Baudelaire expresses this wonderfully in his poem '*Le parfum*', taken from 'Spleen et Idéal' in *Les Fleurs du mal*, Ed. Gallimard (La Pléiade), Paris, 1971, p. 39:

'Lecteur, as-tu quelquefois respiré
Avec ivresse et lente gourmandise
Ce grain d'encens qui remplit une église,
Ou d'un sachet le musc invétéré?

Charme profond, magique dont nous grise
Dans le présent le passé restauré
Ainsi l'amant sur un corps adoré
Du souvenir cueille la fleur exquise.

Dans ses cheveux élastiques et lourds
Vivant sachet, encensoir de l'alcôve,
Une senteur montait, sauvage et fauve,

Et des habits, mousseline ou velours,
Tout imprégnés de sa jeunesse pure,
Se dégageait un parfum de fourrure.'

emotions are closely interlinked, as Marcel Proust well understood. [39]

30. This ability of signs capable of perception by the sense of smell to fulfil the distinguishing function of trade marks is not just of a theoretical nature. Some legal systems have permitted olfactory trade marks, that of the United States being the first. On 19 September 1990 a trade mark was registered for sewing thread and embroidery thread, consisting of 'a fragrance of fresh flowers reminiscent of mimosa'. [40] However, two qualifications must be made on the subject of that trade mark. Firstly, the trade mark consists not so much of the odour as the scented product, regardless of its fragrance. [41]

31. The second qualification is more complex and refers to a particularity of the United States system of trade mark registration. Unlike under the Community legal order and the legal systems of most of the Member States, not only must a particular sign possess distinctive character in order to be registered as a trade mark, but it is also essential that this capability be demonstrated in practice over a specified period of exclusive and uninterrupted usage (*secondary meaning*). In such cases rights under the trade mark accrue by usage, not by registration. A sign becomes a trade mark if customers accept it as such. [42]

39 — It was the phenomenon of involuntary memory provoked by certain sensory perceptions, evocative of occasions in the past, that sparked the creative process of M. Proust in *À la recherche du temps perdu ('Remembrance of Things Past', or 'In Search of Lost Time', from 'Marcel Proust's Remembrance of Things Past'*, edited by Harold Bloom, in the series *Modern Critical Interpretations*, Chelsea House Publishers, New York, New Haven and Philadelphia, 1987). Disregarding the well-known episode of the madeleine soaked in tea, which justifies and triggers the novel (S. Doubrousky, *La place de la madeleine, Écriture et fantasme chez Proust*, ed. Mercure de France, Paris, 1974, p. 7 et seq.), there are other direct and chance perceptions, of which the Irish writer Samuel Beckett, winner of the 1969 Nobel Prize for Literature, emphasises the musty smell of certain public toilets in the Champs Élysées (S. Beckett, *Proust*, Ed. Nostromo, Madrid, 1975, p. 38), although various other olfactory impressions feature throughout Proust's work, such as the smell of a path or of leaves, the scent of a flower, or the smell of stale air in a closed room (J.-P. Richard, *Proust et le monde sensible*, Ed. du Seuil, Paris, 1974, pp. 133 and 134). In particular, the musty smell emanating from the old dank walls of the entrance to some toilets, where the narrator was waiting for Françoise, filled him with a lasting pleasure that he could rely on, delightful, mild and teeming with enduring truth, certain and inexplicable (M. Proust, *À la recherche du temps perdu, À l'ombre de jeunes filles en fleurs*, Éd. Gallimard, La Pléiade, Paris, 1987, vol. I, p. 483).

40 — Most recently, a trade mark was registered on 26 June 2001 for the smell of cherries to identify synthetic lubricants for racing cars or motor vehicles for motor shows. Decisions are awaited on a further 14 olfactory trade mark applications.

41 — See M.L. Llobregat, op. cit., p. 110 et seq., and E. Gippini Fournier, 'Las marcas olfativas en los Estados Unidos', *Actas de Derecho Industrial*, vol. XIV, 1991-1992, published by the Instituto de Derecho Industrial of the University of Santiago de Compostela and Marcial Pons, Ediciones jurídicas, S. A., Madrid, 1993, pp. 157 to 167. In the decision granting this trade mark, the Trademark Trial and Appeal Board stated that it could not serve as a precedent for the registration of odours as product identifiers in instances where the products themselves were olfactory (eau de cologne, cleaning products). Trade marks of this nature would be admissible only for products which were not normally associated with an odour.

42 — See J.T. McCarthy, 'Les grandes tendances de la léglisation sur les marques et sur la concurrence déloyale aux Etats-Unis d'Amérique dans les années 1970', *La Propriété industrielle, Revue mensuelle de l'Organisations Mondiale de la Propriété Intellectuelle*, No 10, October 1980, pp. 225 and 226. *Secondary meaning* is not unknown to Community trade mark law. Article 3(3) of the First Directive provides for the registration as trade marks of signs that originally lacked distinctive character but have acquired such in the course of usage. (Article 7(3) of Regulation No 40/94 expresses the same idea.)

32. In the legal order of the European Union, the Office for Harmonisation in the Internal Market has allowed the registration of the 'smell of freshly-cut grass' as a trade mark for tennis balls. [43] This seems to be a 'pearl in the desert', however, an individual decision which is unlikely to be repeated. [44]

33. In the United Kingdom [45] the United Kingdom Trade Mark Registry has allowed two olfactory marks: the fragrance of roses, applied to tyres (trade mark No 2001416), and the smell of bitter beer applied to flights for darts (trade mark No 2000234). Despite this, the practice in relation to this kind of trade mark is currently changing, as the United Kingdom Government stated in its written observations. [46] For example, by decision of 16 June 2000 confirmed on appeal by judgment of 19 December 2000, the Trade Marks Registry refused to register a mark consisting of the smell, aroma or essence of cinnamon for articles of furniture and parts and fittings thereof (trade mark No 2000169).

34. In France, [47] fragrances can be protected by copyright, [48] and in the Benelux an olfactory trade mark has been allowed for cosmetic products. [49]

3. *Impossibility for olfactory marks to be 'represented graphically'*

35. Under the provisions of Article 2 of the First Directive, it is not sufficient for signs to be 'capable of distinguishing the goods or services of one undertaking from those of other undertakings' in order to constitute a trade mark; in addition, they must be capable of being 'represented graphically'. [50]

43 — Decision of the Second Appeal Board of 11 February 1999 in Case R 156/1998-2, application No 428.870.

44 — A short article appeared in *OAMI News*, No 3, 1999, p. 4, stating that notwithstanding the grant of trade mark No 428.870, the 'smell of fresh cut grass', future practice of the Office would be continue to demand a (two-dimensional) graphical representation of all non-verbal marks as a condition of application.

45 — See paragraph 33 et seq. of the written observations of the United Kingdom Government regarding olfactory trade marks in the United Kingdom.

46 — Paragraph 37.

47 — The French *Bulletin Officiel de la Propriété Industrielle* published the applications for five olfactory trade marks, none of which has been registered so far.

48 — See the judgment of the Paris Cour d'appel (Court of Appeal) of 3 July 1975 in *Rochas*, and the judgment of the Paris Tribunal de Commerce (Commercial Court) of 24 September 1999 in *Thierry Mugler Parfums*.

49 — The deposit (No 925.979) was effected by the French company Lancôme Parfums et Beauté & Cie. The Benelux trade marks office has also allowed the smell of freshly-cut grass as a trade mark for tennis balls.

50 — Paragraph 8(1) of the German Markengesetz expresses the same idea in its preclusion of the registration of signs 'which are not capable of being represented graphically'. This requirement is also imposed by Article 711-1 of the French Code de la Propriété Intellectuelle, Article 165(1) of the Portuguese Código de la propriedad industrial and Article 16 of the Italian trade marks law. Danish, Finnish and Swedish legislation on the subject follow the same line. Greek law also includes this requirement (Article 1(1) of Law No 2239/1994). The United Kingdom Trade Marks Act 1994 (section 1(1)) and section 6 of the Trade Marks Act 1996 in Ireland require graphical representation in order for a sign to be registered as a trade mark. Finally, although the present law in Spain does not contain such a requirement, Article 4(1) of the trade mark Bill currently before Parliament defines a trade mark as 'any sign capable of being represented graphically' (Boletín Oficial de las Cortes Generales, Senate, Part II: Draft Legislation, No 31 (a) of 4 July 2001, p. 6). Graphical representability is not a requirement in the legal system of the United States of America, which perhaps explains why this kind of mark is more widespread in that jurisdiction.

36. This requirement is imposed for reasons of legal certainty. A registered trade mark grants to the owner a monopoly, an exclusive right to use the signs which comprise it. By inspecting the register of trade marks, it must be possible to know, to the full extent of the public nature of registers, the nature and scope of the signs, references and symbols registered as a trade mark, which is why a graphical representation is required. If an undertaking reserves certain signs and references for itself in order to distinguish its goods and services from those of other undertakings, the symbols so claimed must be known very precisely so that other people may be properly guided. For reasons of legal certainty, the requirement of graphical representation is thus linked with the identification function, the primary and essential function of trade marks.

37. Graphical representation entails describing something by means of symbols that can be drawn. Consequently, the capability of a sign of being 'rendered on paper' and thus perceived visually must exist in addition to its intrinsic identification capability. Since the purpose is to differentiate, the representation must be effected in a comprehensible manner, since comprehension is a precondition of discernment.

38. In other words, graphical representation *per se* is not enough: it must meet two criteria. Firstly, it must be complete, clear and precise, so that the object of the right of exclusivity is immediately clear. Secondly, it must be intelligible to those persons having an interest in inspecting the register, in other words other manufacturers and consumers.[51] Distinctive character and graphical representability are two properties having the same common purpose of enabling the products on the market to be selected by potential buyers on the basis of their origin. Signs comprising a trade mark are represented graphically in order to protect and publicise their appropriation by an undertaking, which has reserved the signs for itself with the aim of individualising the goods or services it offers.

39. Can an odour be 'drawn'? Can an olfactory sign be graphically represented in a way which is precise and clear for everyone? In my view, the answer is no. It also seems to be no for Mr Sieckmann, who admitted in his oral statement at the hearing that odours cannot be represented graphically. To reach this conclusion, it will suffice to examine the alternatives proposed by the Bundespatentgericht in its second question.

40. The chemical formula represents not the odour of a substance, but the substance itself. The entry would consist of the chemical constituents and their precise proportions required to obtain a certain

51 — In its written observations, the United Kingdom Government rightly states that a representation would not be acceptable if it demanded undue effort on the part of the person inspecting the register in order to determine what the sign was from its representation (paragraph 32(c)).

product, but not the olfactory sign. Furthermore, such a representation would lack the necessary clarity and precision. Only very few persons would be able to interpret a smell on the basis of the chemical formula representing the product from which it emanated, that is from the elements of which it consisted, and the quantities [52] that would have to be mixed to obtain the product. [53] In addition, the same product can give off different olfactory signs depending on such chance factors as its concentration, the ambient temperature or the substance bearing the odour. [54]

41. Even if the description of a sign or signal in written language is a graphical representation, this still does not meet the applicable criteria of clarity and precision. [55] Due to the reasons given above, the description of a design presents fewer difficulties than that of a piece of music, a colour or an odour. The shape associated with the design allows its features to be objectivised, which is not the case with signs which are not figurative. A description of a smell is burdened with more subjectivity [56] and therefore relativity, [57] which is inimical to precision and clarity. The case in the main proceedings is a good example of what I wish to express here. The applicant is applying for trade-mark protection of 'a balsamically fruity scent with a slight hint of cinnamon'. What does 'balsamically' mean? What should be understood by 'fruity'? How intense is the slight hint of cinnamon? It would be impossible with this description to identify the olfactory sign for which the applicant is claiming exclusive rights. Even if the description were longer, it would not gain in precision and nobody could ever know beyond doubt of what the odour in question consisted. [58] It seems obvious that the description of an odour is not a sufficient

52 — Who would experience the formula C_6H_5-CH = $CHCOOCH_3$ as 'a balsamically fruity scent with a slight hint of cinnamon'?

53 — The United Kingdom Government further explains in its written observations that many smells are caused not by a single chemical substance, but a mixture. Identifying the nature of the sign from a number of complex chemical formulae would cast an undue burden on persons consulting the register (paragraph 41).

54 — H.E. Meister states in 'Markenfähigkeit und per se-Ausnahmen im Gemeinschaftsmarkenrecht', *WRP — Wettbewerb in Recht und Praxis*, No 9/2000, p. 967 et seq., that 'freshly-cut grass' does not smell the same in his home town as in Alicante.

55 — Unless the mark is purely a word mark. For example, the word mark 'tapitoli' is distinctive in itself, unless there exist other identical or similar names for identical or similar products (see Articles 4(1) and 5(1) of the First Directive).
The edition of *OAMI News* already referred to states that the Office does not generally regard a description as an adequate substitute for a graphical representation.

56 — The Austrian Government demonstrated this with an example in their written observations: no two oenologists will describe the same wine in the same way (paragraph 4(2)). To take just one example: the bouquet of the wine *Château Talbot* (denomination of origin: *Bordeaux, Saint-Julien*) of the 1992 vintage is described as 'an exotic and extrovert bouquet of black cherry preserve, truffles and liquorice, with a distinctive note of plants and herbs, full-bodied and soft, juicy and tasty' (R. Parker, *Les vins de Bordeaux*, Éd. Solar, Paris 1999, p. 317) and also as a 'bouquet of coffee grounds with an earthy quality and a wonderful structure, rich and concentrated' (*Le guide Hachette des vins 1996*, edited by J. Arcache and C. Montalbetti, Paris 1995, p. 327).

57 — H.E. Meister, citing K. Lorenz, says that part of the difficulty in objectivising smells is due to the limitations of language, and dates back to the time when the only known experience was ontogenesis. This is why smells are described by reference to other items ('smell of cinnamon').

58 — S. Maniatis, op. cit., quotes the description used when registration was sought for the perfume 'Chanel No 5': 'the fragrance of an aldehydic, floral perfume with a top note of aldehydes, bergamot, lemon and bitter orange; an elegant, flowery middle note of jasmine, rose, lily of the valley, iris and ylang-ylang, and a feminine, sensual base note of sandalwood, cedar, vanilla, amber, civet and musk. This fragrance is also known under its written name: No 5'.

graphical representation for the purposes of Article 2 of the First Directive. [59]

42. Finally, the deposit on the register of a sample of the chemical product that produces the smell is not a 'graphical representation' of the distinctive sign. Although depositing a sample of the substance that produces the odour may be permissible, the difficulties of registration as regards clarity and precision would be compounded by further problems associated with publication of the mark and the passage of time. Due to the volatility of its constituents, an odour changes over time, and can even disappear completely. [60]

43. If none of the surrogate reproductions proposed in the second question can individually meet the criteria of being 'represented graphically', enabling the sign or signs comprising the mark to be clearly and accurately identified, the sum of all those surrogate reproductions is likely to create yet more uncertainty. Registration of a chemical formula, together with an olfactory sample and a description of the odour it produces, increases the number of messages intended to identify the sign and therefore the risk of different interpretations, which can result in greater uncertainty. [61]

44. I have no wish at all to deny that olfactory messages can be represented in writing, I am aware of various systems employed in science to 'record' smells, [62] but in their current states of development they all suffer from the difficulties mentioned above, and from the lack of the clarity and precision necessary for the visual expression of a distinctive mark in respect of which exclusivity is sought in the form of a trade mark.

45. It is not necessary expressly to exclude certain signs from legal provisions regarding trade marks. They exclude themselves, because they are unable to comply with the requirements of trade mark law. [63]

59 — If the description of a smell were to be allowed as a trade mark, why not that of a feeling? For example: sorrow, fear, hope or well-being.

60 — Volatility is an essential precondition for a substance having a smell. Perfumes smell because they are volatile. The volatility of their components is not uniform. The sensory receptors perceive the olfactory impulses emitted by the most volatile element ('top note') first. The 'middle note' represents the centre of the perfume. The most durable and least volatile notes are the 'base notes', which give the fragrance character and make it last.

61 — There would be nothing abnormal in a person inspecting the register of trade marks, smelling the sample deposited there, and concluding that the scent they perceived did not match the description in the entry, despite their having nothing to say about the registered chemical formula which would be a mystery to them.

62 — Sensory assessment, gas chromatography (GC) and high performance liquid chromatography (HPLC), described by M.L. Llobregat, op. cit., pp. 102 to 105.

63 — M. Mathély, 'Le droit français des signes distinctifs', *Librairie du Journal des Notaires et des Avocats*, Paris, 1984, p. 42.

46. In brief, odours cannot be 'represented graphically' as required by Article 2 of the First Directive, although they may have distinctive character. For this reason, in accordance with that provision, they cannot constitute trade marks and consequently cannot be registered as such, by virtue of Article 3(1)(a) of the Directive.

IV — Conclusion

47. In the light of the foregoing, I propose that the Court should answer the questions referred by the Bundespatentgericht for a preliminary ruling as follows:

(1) Article 2 of First Council Directive 89/104/EEC of 21 December 1988 to approximate the laws of the Member States relating to trade marks requires, if a sign is to be registered as a trade mark, that it have distinctive character and be capable of being represented graphically in a full, clear and precise way which is comprehensible to manufacturers and consumers generally.

(2) At present, odours cannot be represented graphically in the way described and therefore cannot constitute trade marks in accordance with Article 2.