

Brexit Blues: an explanation of how the UK legal systems protect colour and how this may be affected by recent legal and political developments¹

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The study is an analysis of the legal mechanisms available in the United Kingdom (UK) to protect colour and the possible implications on these protections of the UK's decision to leave the European Union (EU). The study explains the unique issues colour presents for the law and explores how the intellectual property system operates to generate rights over colours generally with reference to the colour blue as an illustrative thread running through the study. It has used both literary and web-based resources and contribution from those practising in the field. Consideration is then given to multiple colour rights and the interrelationship between the various rights in the context of the current political climate.

Received 16 November 2017; revised 02 March 2018; accepted 17 March 2018

Published online: 26 March 2018

Introduction

Colour impinges on many areas of life from world history, religion, science (physics, chemistry and biology), and art (in all its myriad forms from architecture to photography) to relatively more modern disciplines such as information technology. It is, by its nature, both multi-disciplinary and inter-disciplinary. Despite this or maybe because of it, colour is a universally understood phenomenon. However, like language, variants and nuances in understanding, meaning and classification are legion. So what I see as blue may not necessarily be what you see as blue and different cultures may name the same colours in different ways. Whole academic texts have been written on the semantics of colour [1-3].

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Colour is also an ever evolving field. It started with the early scientific discovery of the splitting of white light by Newton [4] and the discoveries of the sources of colours in the natural world and runs all the way through to the complex digitised International colour coding systems we now have at our disposal as well as new colours still being invented and discovered [5].

So why would one want to own or obtain rights to a colour and what is the mechanism for doing so? Colour “ownership” can lead to serious competitive advantage for the owner in the marketplace and can thus attract significant attention and investment. The law creates these rights through various forms of what are termed intellectual property rights (IPRs) (see Glossary of initialisms) a series of umbrella rights in the branch of law called Intellectual Property law. This article will consider how all those umbrella rights might give rise to rights in or over a single colour. Consideration will then be given to rights in multiple colours and further issues these raise.

The relevant rights include trade secrets, patents, trademarks, design rights and copyright and will be considered in this order.

The author has observed that there is often confusion between the different rights and how they work in offering colour protection and it is hoped that this article will help clarify this complex area. An in-depth legal explanation of the generic functioning and granting of individual IPRs together with a comprehensive list of cases and statutes is outside the scope of this paper and can be found elsewhere [6] and this paper focuses more precisely on how colour protection crystallises in the context of those different IPRs. Once the colour is protected in the specific right all the remedies attached to that right will of course apply. Infringement cases, where those rights are challenged, are often a useful tool in understanding how and why rights were originally granted. They force re-analysis of concepts underlying the original right and as with all legal disciplines provide a mechanism for inter alia updating the boundaries and dictating evolution of the law in this field.

All UK law is either based in statute (Acts of Parliament) or common (case) law or is European or International in origin. Statutes have the power to change common law but not vice-versa. Intellectual Property law in the UK currently revolves around a large number of Statutes, Regulations and Orders together with various Statutory Instruments and European Community (EU) legislation and various International Conventions and treaties such as the Paris Convention for the Protection of Industrial Property and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS agreement).

The effect of the UK’s decision to leave the EU (Brexit) superimposes a dynamic political agenda on top of an already complex framework of rights and legislation governing colour ownership. Furthermore, there is a spectrum of possible types of Brexit (in terms of, for example, transition periods and trading arrangements) each of which may result in different implications for future legislation and rights structures. The UK will continue to be a member of the EU until the expiry of the Article 50 Lisbon Treaty notice period [7]. A transition or implementation period may follow expiry during which the future trading relationship would be decided. EU law flows down to national UK law but not vice-versa. EU Regulations apply to all EU Member States without the need for national legislation whereas EU Directives must be implemented into national law by legislative act before they become effective. The effect of Brexit on EU Regulations is thus potentially more instantaneous than on EU Directives. The legal mechanisms for colour protection may be set to undergo some changes during any implementation of Brexit because of the impact of Brexit on the applicability and status of EU derived legislation to the UK after Brexit.

Two Government White papers and timeline briefing paper broadly state the UK government’s general legislative exit plans which include the passing of the EU (Withdrawal) Bill 2017-2019 [8]. The main object of the Bill is to import where practicable EU law into UK law (e.g. EU Trade mark law) at

the point of exit thus providing initial legislative continuity until the government is ready to amend, update or repeal legislation. The process and timescales may mean however that there will be little chance of fine-tuning any of it during the process. In September 2017 the EU published a position paper on IPRs post Brexit calling for existing rights to automatically cover the UK after Brexit [9]. Notwithstanding Brexit, the broader International umbrella legislation found in the aforementioned conventions and treaties will continue to apply to the UK and maintain a stabilising influence.

The colour chosen to demonstrate the mechanisms of legal protection is blue and most of the examples chosen are based on what an English speaking layman might understand blue to mean. The exact extent of colours which would be described by English speakers as “blue” can be found in a defining text on basic colour terms [1]. As well as being one of the primaries, blue holds a special place in history and science. It is not the purpose of this article to explain that historical and scientific importance, that has been dealt with eloquently elsewhere [10-15] but it influenced the author’s choice for the rights explanations contained in this paper.

Trade secrets

In so far as colours are inherent to innovative 2D or 3D know-how and commercially sensitive information there may be a role for confidential information and trade secret law in protecting them. Historically there has been no strict legal definition of a trade secret but Article 2 of a new Trade Secrets Directive (TSD), states that a trade secret must be “not generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question”, has commercial value and has been subject to reasonable steps to keep it secret. Notwithstanding Brexit, it is widely acknowledged that it may be prudent for the UK government to implement this Directive. The UK has to date been strong in the field of protecting confidential information under common law in any event which is, in the main, well aligned with the Directive, although future problems with interpretation have been predicted in relation to certain definitions within the TSD [16].

Recent in-depth research and a subsequent exhibition of illuminated manuscripts of medieval and Renaissance Europe (from the 8th to the 17th centuries) [17] shows that trade in various blues was going on during this period and such manuscripts have provided an invaluable resource for the study of colour. During the course of this research, 21st century techniques were applied to these manuscripts to augment existing knowledge acquired through artists’ treatises, manuals and recipe collections. Ultramarine blue, derived from lapis lazuli, was frequently used by illustrators although its method of production was something of a mystery. The use of indigo, derived from European woad, a plant product and smalt (obtained by grinding blue glass) was also found in a Venetian manuscript pointing to the close relationship between illustrators and glass-workers. Some techniques used in the production of blues during this period could also be considered alchemical [17].

Although the oldest synthetic blue is likely to have been a Bronze Age (2500 BC) blue, Egyptian frit or Egyptian blue [18], we have more details of where the formula for a blue colour was protected only through secrecy in the case of “Prussian blue”. It was made by Diesbach of Berlin around 1700. It was the result of a lucky laboratory mistake whilst experimenting with the oxidation of iron and trying to produce a red colour. The advantages of Prussian blue over other blues in terms of cost, stability and versatility were immediately recognised. Its formula and process of manufacture was kept secret until its publication in 1724 in *Philosophical Transactions of the Royal Society*. The production methods were quite complex involving many groups within society at that time and they were frequently in dispute [19].

The formula for these early blues may, with hindsight, be considered early forms of trade secret securing competitive advantage to the owners. Such formulations of early Prussian blue would now be potentially protectable also by patent, subject to fulfilling the criteria of patentability. The process of keeping secrets had its limitations which the patent system addressed. Some of the undesirable side effects of secrecy as a sole form of intellectual property protection contributed, in part, to the historical development of worldwide patent systems where confidentiality plays a fundamental role but cannot in isolation provide sufficient protection.

There are some cases now however where it may be prudent to reconsider trade secrets and other IPRs as an optimal form of intellectual property protection in circumstances where the tables have turned again and traditional patent law is now wanting. This is particularly evident in the growing field of additive manufacturing and 3D printing where new forms of digital rights combine with even more novel methods of infringement [20].

Patents

In the UK, patents can be granted for new, non-obvious product or process inventions that have an industrial application and which are not excluded from patentability. But how is colour relevant to the grant of patents? Can colours be patented? In the UK, colours in the abstract (or “*per se*”) are not protectable by patents and indeed their use is not permitted in parts of the patent application process for some patents [21]. Colours do however have relevance in so far as they may be an inherent or integral feature of a patentable product or process. In fact colour may even be the ultimate purpose or function of the product or process as in the case of chemical paint process patents. Therefore each colour in a paint range will not have its own patent. The patent relates only to the underlying formulation and/or means of production.

William Henry Perkin (working for August Wilhelm Hofmann) took out a patent on a new method (process) for creating a striking purple aniline based dye called mauveine in 1856 – the first synthetic dye. He discovered it accidentally whilst trying to synthesise quinine to treat malaria. From here the aniline dye industry (which included production of aniline blue) flourished [18]. Instrumental in this was the “Béchamp reduction” process which allowed inexpensive scale up of aniline dye. Although not originally a UK patent, one of the most famous “blue” process patents (issued in 1960 by the French Patent Office) was for International Klein Blue (IKB). IKB was developed by Yves Klein and chemists at the French pharmaceutical company Rhone Poulenc. This patent, published in 1960, related to a particular paint formula [22]. A new brilliant, non-toxic, non-fading blue (the first new vivid blue available for 200 years) has recently also now been patented by chemists at Oregon State University- Y In Mn Blue (named after the elements yttrium, indium and manganese contained in the inorganic pigment) or sometimes referred to as “Mas Blue” (after the inventor). Like mauveine and Prussian blue before it, this discovery was something of an accident made in this case by chemists whilst researching materials for electronics applications [5]. By contrast, a famous example of a “blue” product patent (US patent) was for “Improvement in Fastening Pocket-Openings” by Levi Strauss and Jacob Davis (1873) which went on to produce blue jeans worn the world over [23]. There have subsequently been a number of interesting process patents granted addressing the treatment of denim to produce various features on the denim cloth.

It is believed that the patent processes in the UK are unlikely to be significantly affected by Brexit as they do not derive from EU Regulations (e.g. (non-EU) European Patent Convention (EPC) and Patent Co-Operation Treaty (PCT)) and many of the existing European patent initiatives and processes will

continue as they are or as they have been planned. Leaving the EU does not require a departure from the EPC. The advent of a Unified Patent Court, if kept on course, may streamline and minimise confusion between the English courts and Europe and is thus generally viewed as a desirable development. The UK recently announced that it will ratify the Unified Patent Court Agreement although the process of ratification can be somewhat protracted. It has been pointed out however that this still leaves open the question of whether the UK will continue to participate post Brexit. At present the agreement is only open to EU members, so there would have to be a renegotiation of terms to allow the UK to continue to participate.

Trademarks

Trademarks differ from patents in that they are there to protect the public not the possessor although they can be an extremely valuable asset of the owner. Colour is now specifically mentioned in new EU legislation as being a sign which may be protected as a trademark provided that it is capable of distinguishing the products or services of a particular business from its competitors, and that it can be precisely identified. Trademarks may be granted covering specific countries at national level (including the UK), Europe (including the new EU Trademark (“EUTM”)) and internationally (under for example the Madrid System). Trademark law of the EU is governed both by EU law together with the national laws of member states.

A comprehensive analysis of colour trade mark law from a predominantly European perspective was carried out in July 2012 [24]. This addressed the difficult areas of registrability (prior to more recent EU legislative changes discussed below) together with an analysis of free competition issues which as we shall see impinge heavily on colour cases. It also looked at some important US cases and their impact on the international arena of colour marks.

The report summarised that there are three ways in which colour can form part of a trademark – as part of a traditional mark (containing other defining features like words and shapes), as a single consistent feature of the so-called “get-up” of a product and lastly as the colour *per se* (also known as abstract colour). It is this last type which is generally the most sought after protection because of its potentially wide usage yet actually the hardest to acquire because of the difficulty of accurately defining it [24]. What is and how it is to be registered has historically proved too vague and has caused ambiguity and problems for these abstract marks [25-26]. Case law in this area has previously concluded that colour *per se* (without contours) must therefore be unambiguous and readily searchable by interested third parties and must now be a colour from one of the internationally recognised colour identification systems such as Pantone, RAL, Focoltone, Munsell or NCS. Each of these systems has their own challenges when used for colour registration e.g. one has to apply for a colour that “matches” the Pantone colour rather than the colour itself as Pantone has the rights over the numerical matching and naming process (in addition to its own trademark over the name Pantone).

Practitioners [27] in the field of colour trademarking explain that if a brand owner has used a uniquely formulated colour for decades, or even longer, companies such as Pantone may create a specific number so that this may then be used to fulfil requirements during the trademark application process. Furthermore, they comment, that the best option to secure colour trademark protection is to stick with the single colour which indicates the origin of its goods. If a third party uses a similar mark (and there is likelihood of confusion) then infringement proceedings may be brought. Trademark owners could well come unstuck by trying to apply across a range of colour shades. The resulting registration of a single colour shade may however extend protection more widely. The key issue with

infringement is whether consumer confusion is generated or whether use of the colour by a third party takes unfair advantage (free riding) or causes dilution or tarnishment of the owner's mark [27].

A relevant trademark application involving blue trademarks was concerning Ty Nant Spring Water Ltd.'s characteristic cobalt blue bottle [25] and *Ambrit v Kraft* (in the US) was a case in this field concerning royal blue packaging on frozen desserts [28].

Routes to trademarking and related law applicable to UK applicants were updated in March 2016 with the result that more credence is now given to colour marks with the advent of the Community Trade Mark Regulation (EUTMR). A colour mark can be registered under a class of goods or services initially for a 10 year period with renewals. It must continue to be used however. The old Trademarks Directive (old TMD) sets out in detail the current requirements for registration and factors excluding a registration in Europe and the UK. Under new form legislation (new TMD) due to be implemented in 2018 and updated to reflect key European Court of Justice (CJEU) case law [29] a colour mark must be:

“clear, precise, self-contained, easily accessible, intelligible, durable and objective, the sign should be permitted to be represented in any appropriate form using generally available technology, not necessarily graphic means”

The colour mark, in common with all registered trademarks, must be “capable of distinguishing the goods or services of one undertaking from those of other undertakings...”

Distinctive character is one of the main hurdles of any colour mark in the registration process. Acquisition of the distinctive character, central to registration, can occur through use even if the mark falls within various exceptions set out in the Act. This is particularly important for colour marks as they are not by their nature particularly distinctive. The recent abolition of the previous “graphical representation” requirement which has been problematic for some colour marks e.g. holograms may go some way to ameliorating this although the legal principle that the mark must be clear, precise etc. and be adequately represented will still apply [6].

It will thus be interesting to see whether this new Trade Marks Directive is implemented and what effect the recent changes to trademark legislation have on such colour applications long term. Will single colour trademarks generally continue to be as difficult to register? The owner must still show that, as a result of long-standing, intensive and widespread use of the colour (accurately defined) on certain goods and services, consumers' perception of the colour has changed to the extent that the goods and services indicate that they originate from one entity and no other. It is the view of some practitioners [27] that the new wording is unlikely to make much difference to the registration of colour marks. They comment that the rationale for this is that, since the use of internationally recognised colour codes, it was not generally the identification of the colour which was the issue but the description of how the mark was applied. Until there is a further case in the CJEU it appears that simply naming the colour without a description of how it is applied is generally acceptable. This is an area of law which is not yet fully developed and one where the UK has been at odds with the national registries of many other EU member states. The UK Intellectual Property Office (UKIPO) has historically taken a more stringent approach to the registration of colour marks *per se* than many other national EU member states [27].

Some of the difficulties surrounding colour protection may stem from concern about so called “colour depletion” – a belief that colours are ultimately in limited supply and that free competition needs to be safeguarded. But are they and does it? One could certainly argue that given the multiple ways colours can be defined in conjunction with the stringency of the legal hurdles to be overcome in their registration this is unlikely to be a problem in practice.

It is very apparent however that there is no uniform approach with respect to competition considerations in colour mark cases [24]. This may relate in part to the potential complexity of this type

of mark coupled with the previous ambiguous registration criteria. Notwithstanding this, colour registration has been managed successfully by some brands for example luxury brand Tiffany in its registration of a particular shade of blue now commonly known as “Tiffany blue” or “robin’s egg blue” [28]. It may however only be a luxury affordable to the few who can spend the money on the promotion of the colour to demonstrate the usage criterion and link to origin by the consumer required for registration [24].

It is interesting to note that the EU Intellectual Property Office (EUIPO) (formerly the Office for Harmonisation in the Internal Market (OHIM)) is giving increasing importance to colour aspects of all trademarks. Now, an early black and white registration of a mark which the proprietor currently uses in a different colour may mean the current use is not properly protected. This suggests that colour, generally, is playing a more significant role in applications now than it did in the past [30].

The affect Brexit may have on UK and EU trademark applicants are considered in two useful documents authored by the UKs Chartered Institute of Patent Attorneys (CIPA) [31] and the UK government [32]. The precise implications for different categories of trademark (particularly EUTMs), their registration and enforcement is somewhat of a moving feast with currently unclear timelines and outcomes and can best be followed by consulting regularly updated practitioner websites and obtaining up to date professional advice [27]. Issues to be considered include the long term applicability of relevant EU derived Regulations and Directives, implications for the Courts and current IP systems (including matters related to infringement and enforcement) and exhaustion of rights issues (this is the principle that after a product covered by an IP right has been sold by the owner the owner loses rights over the product). A basic pre and post Brexit model for trademark registration and enforcement can be seen in Figures 1 and 2.

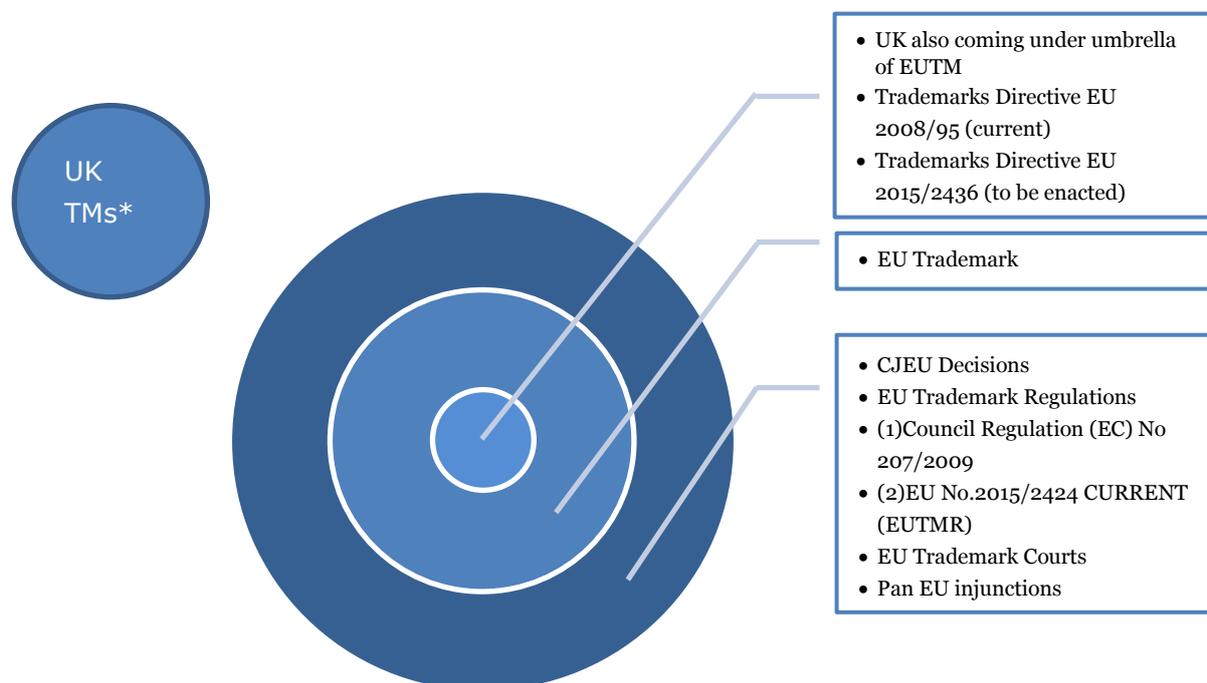


Figure 1: Pre-Brexit Trademark model illustrating the interrelationship between UK and EU trademarks (EUTMs). NB UKTM governed by Trade Marks Act 1994 (the national legislation implementing Trademark Directive EU 2008/95). EU Directive 2015/2436 is due to be implemented. UK and EU systems run alongside one another but each can prevent registration of the other. Madrid Protocol International application route also available for UK applicants and /or EUTM applicants (including UK applicants) depending on where registration is required. Interrelationships of the 3 routes are complex and need to be considered on a case by case basis.*

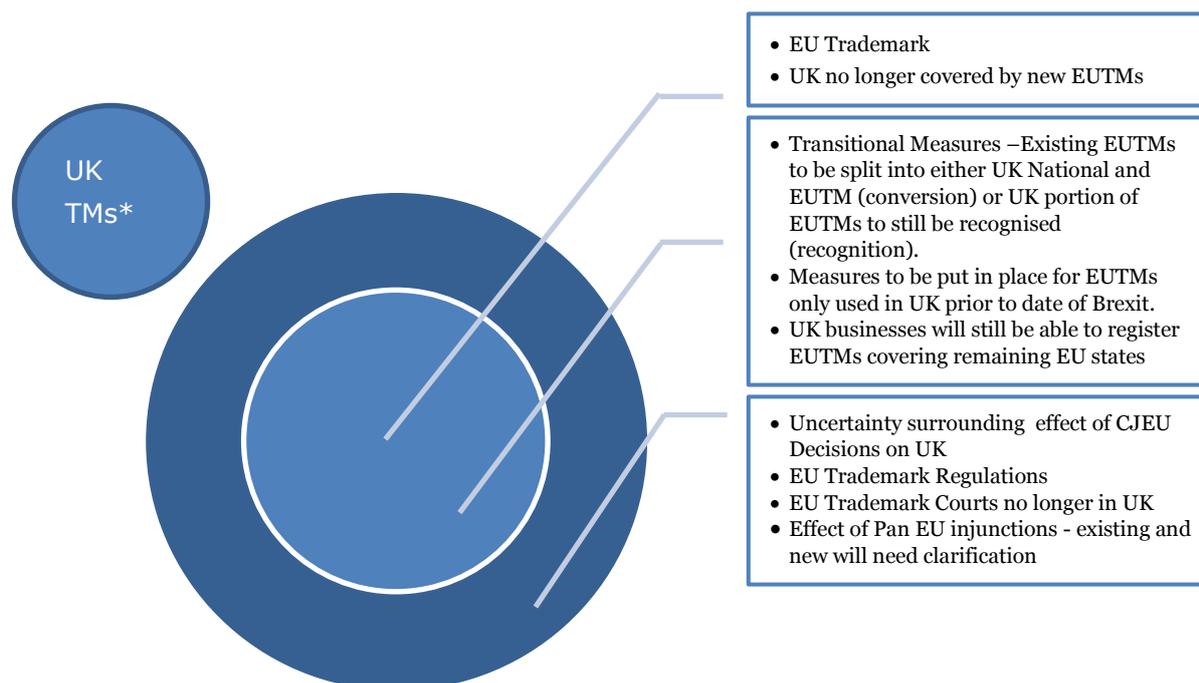


Figure 2: Post-Brexit Trademark possible model illustrating the interrelationship between UK and EU trademarks (EUTMs).

NB Holders of UKTMs unaffected. UKTM governed by Trade Marks Act 1994 (the national legislation implementing Trademark Directive EU 2008/95). EU Directive 2015/2436 due to be implemented. Effect of EU Regulations and Directives long term will depend on the terms of future UK-EU relationship and type of Brexit. Madrid Protocol International application route also available for UK applicants designating UK and EUTM applicants (EUTM no longer include UK). Interrelationships of the 3 routes would require reassessment.*

Advantages and disadvantages of possible options for addressing rights of existing and pending EUTM holders, which post Brexit may otherwise not then extend to the UK, have recently been proposed and analysed [16]. The issues involved in the different options are highly complex and the complexity is further compounded by the political uncertainty which has surrounded the type of Brexit. It is also worth remembering that even where trademark registration has failed the common law of “passing off” may apply to colour usage. This is designed to prevent misrepresentation in the course of trade to the public for example by implying association between two unrelated businesses. It protects the goodwill of a trader and although not always easy can be of great benefit when an action for trademark infringement would not be successful.

Colour in conjunction with shape usage more easily registrable than colour(s) alone – 3D trademarks with colour component versus 2D counterpart

In several cases, the principle has been demonstrated that it is easier to register shape and colour together than shape or colour alone. Shape when added to the application can provide added contours and context. 3D models can thus be registered when their 2D counterparts would prove more difficult to register. Colour and shape marks can also benefit from the so-called “abstract variations” argument which allows variations within a trade mark which are viewed as merely a cause of confusion in 2D colour marks [33].

Trademarks and patents co-existing

From the above analysis we have seen how a colour (e.g. a shade of blue) can be the subject of trade secrets, patents and trademarks. In some industry sectors, for example the pharmaceutical sector, both patents and trademarks often co-exist. Trademarks incorporating a distinctive colour element can help establish a pharmaceutical brand during the course of its patent monopoly. This is exemplified by Pfizer's blue lozenge shaped Viagra. Pharmaceutical manufacturers should in many cases work to manufacture products with strong trademark protection. Distinctiveness of shape, colour and even texture can prevent issues with competitors at a later date when the underlying patent on the product may have expired [34].

But, what of other IPRs? Can blue ever be the subject of a design right or copyright?

Design rights

Design rights often overlap with other intellectual property rights although sometimes they can defeat one another for example prior trademarks can undermine novelty criteria in design applications.

There are four different forms of design right protection available in the UK – unregistered Community design (UCD), registered Community design (RCD), UK registered design (UKRD) and the UK unregistered design right (UDR). RCD and UKRD follow broadly similar rules for registrability so I will look at the latter by way of illustration. (UDR only protects the 3D aspects of the original shape and excludes surface decoration).

As with Community Designs, there are of course many facets to a UK registered design application. UKRDs are governed by the UK Registered Design Act 1949 (RDA) alongside the Regulatory Reform (Registered Design) Order 2006. UK Registered Design law has largely been harmonised with Community design law subject to a few procedural differences.

So far as colour is concerned prior to the recent Registered Designs Examination Practice guide of March 2017 colour fell within the meaning of the term “design” in Section 1 of the amended 1949 Registered Design Act. Designs Practice Notice (DPN) 6/06 [35] dealt specifically with colour in design applications. This notice explained that “It is important for applicants therefore to decide at the time of making an application whether or not colour is an element of the rights being claimed”. It then went on to address two scenarios: where colour forms part of the application and applications consisting of colour alone. The latter concludes that a single colour *per se* is unlikely to fulfil the definition of a design (although registration may be possible with more than one colour or where colour is being applied to a known product) [35].

The new March 2017 practice guide [36] reaffirms (and expands previous guidance) that a single colour *per se* will attract objection. It also makes clear that the importance which colour combinations assume in design applications may vary depending on overall appearance and impression. So different colourway combinations may potentially give rise to different designs depending on overall impression. Recent case law has however pointed to colour playing a more limiting factor in designs [37]. EUIPO guidelines [38] further set out the circumstances under which combinations of colours may be accepted, which relate to a product e.g. a logo or graphic symbol within the Locarno classification, an international classification used for the purposes of the registration of industrial designs [39]. Often colour will form part of “surface decoration” and s213 (3) Copyright, Designs and Patents Act 1988 (CDPA 1988) also states that design right does not subsist in surface decoration.

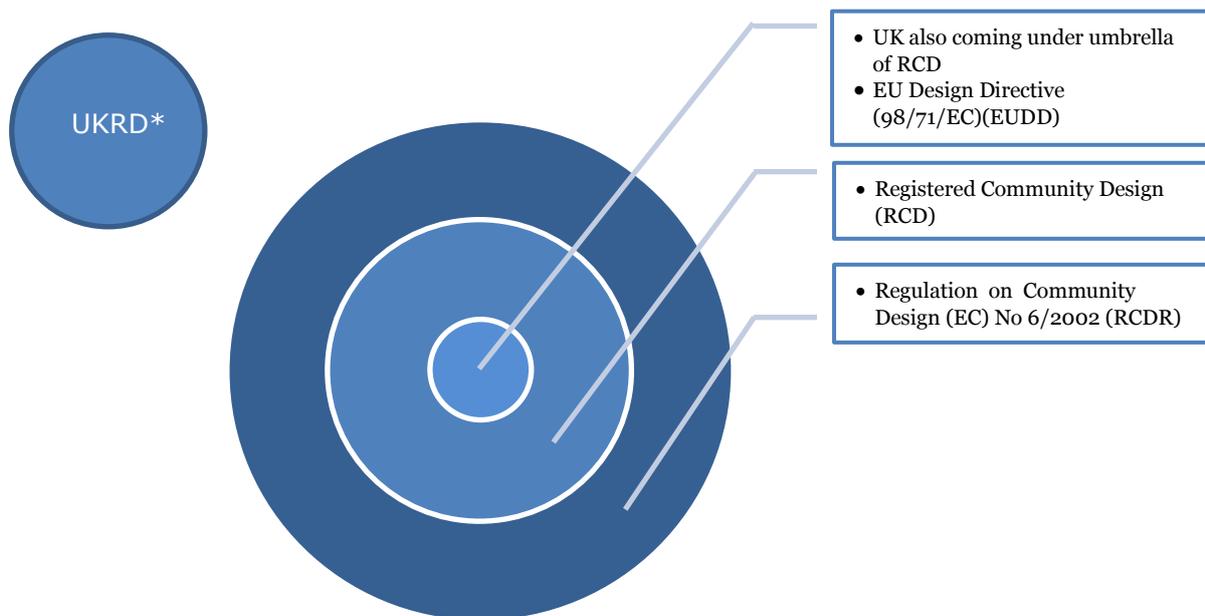


Figure 3: Pre-Brexit model of Registered Design Rights.

NB* UKRD governed by Registered Design Act 1949 (as amended). UK government also intends to ratify the Hague Agreement which governs a system for the International registration of industrial designs.

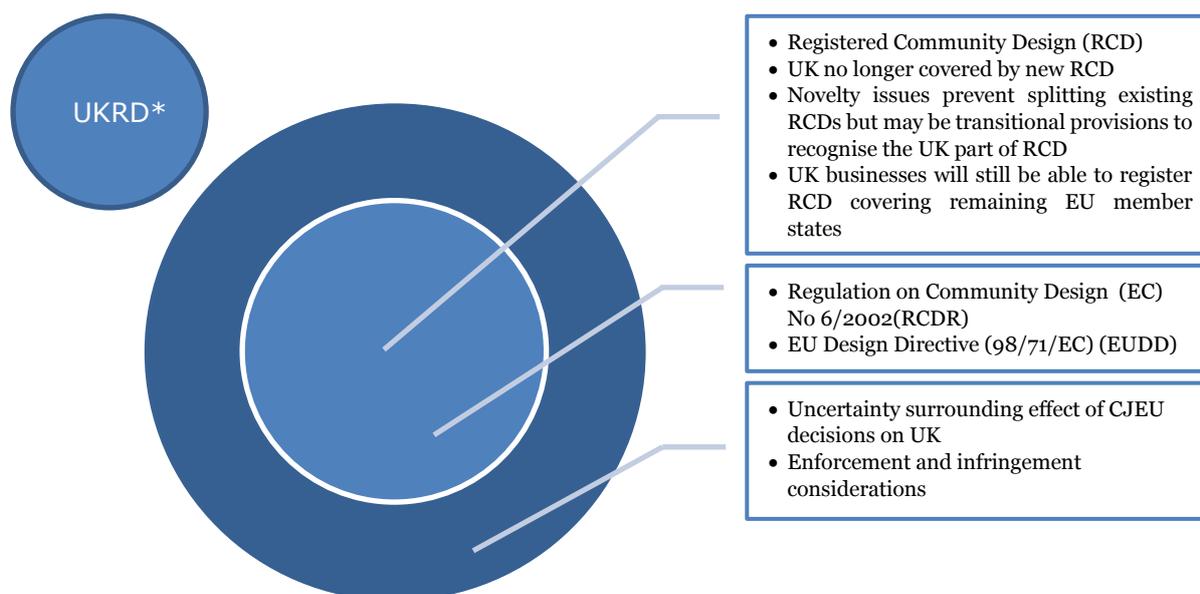


Figure 4: Post-Brexit possible model of Registered Design Rights.

NB* UKRD governed by Registered Design Act 1949. Effect of EU Regulations and Directives long term will depend on the terms of future UK-EU relationship and type of Brexit. UK government also intends to ratify the Hague agreement which governs a system for the international registration of industrial design.

As in the case of the EUTM, if we leave the EU the standing of Registered Community Designs Regulation (RCDR) is also up in the air thus again highlighting the longer term difficulties faced by rights of a unitary EU character in the present UK climate. Practitioners have commented that there may be some difficulty in the UK government affording some form of UK national protection to existing RCD due to novelty issues although legislative change could address this [27].

As with trademarks, the implications for different categories of design right, their registration and enforcement can be best followed by consulting practitioner websites and obtaining up to date professional opinion [27]. A basic pre and post basic Brexit model for Registered Design rights can be seen in Figures 3 and 4.

It has been commented, as part of a detailed analysis of the consequences of Brexit for IP law rights [16], that the position post Brexit of not being able to own both national and EU design rights covering the UK would remove an undesirable overlap in the system for the holders of design rights in the UK. Consideration has also been given as to the reasons why UK Registered Design law may be due an update post Brexit.

The UK will also be in a more difficult position post Brexit vis-a-vis EU unregistered design right (UCD). The result of Brexit may be that UK designers will no longer be able to take advantage of this right without directly first marketing in the EU. As a result, the UK government may find itself under pressure to legislate to address the deficiencies in current UK unregistered design right (UDR) [27].

Copyright

Copyright law is intended to protect the possessor. It subsists in inter alia “artistic works” as defined by the CDPA 1988. Recent changes to this Act have increased the period of protection after a designer’s death to 70 years for the specific category of “Works of Artistic Craftsmanship” e.g. stained glass windows. This brings the timeframes for protection for this category of work in line with artistic works in general [40].

The colour blue (in one shade alone or in several shades or mixed with other colours) in a work of art is capable of being protected by copyright provided the author expends sufficient skill, judgement and effort in its creation. When colour is part of something qualifying for copyright in this context it will therefore always be an element or aspect in creating such a work and is not protected *per se* as we saw was possible under trademark legislation.

Copyright can also manifest itself as a multi-layered right in some circumstances which can give rise to confusion. An example of this may be if a photographer takes a photograph of a piece of artwork belonging to someone else? In those circumstances two copyrights may exist – copyright in the photograph and separate copyright in the underlying work. It may thus be easy for infringement to occur by inappropriate use of the photograph [41].

Brexit will have little effect on copyright given that copyright is not a pan EU right (a right available across all European Countries), however it has been mooted that the Government may use Brexit as an opportunity to review and update copyright protection generally. There has been much technological advancement since the last major review of copyright legislation and the law may be due a timely overhaul. The UK government have stated [32] that while the UK remains in the EU the copyright laws will continue to comply with the EU copyright Directives. The continued effect of EU Directives and Regulations following Brexit will depend on the terms of the future relationship.

It has been pointed out [16], as part of a post Brexit copyright analysis, that there may be references in the CDPA 1988 and related legislation to the EU which become inappropriate and will need changing. Certain advantages of Brexit may include the UK no longer needing to comply with voluminous EU IP (so called “acquis”) exceptions. If the UK becomes no longer subject to EU competition law this may also have an impact on copyright works.

Minimum requirements for copyright, trademark and design protection and single colour shades

So we have seen that single colour shades *per se* are unlikely to pass the rigorous criteria for all types of design right and copyright protection. It is interesting though to consider at what point a single colour shade when used in a particular way may start to qualify for protection. It is surprising that sometimes not that much needs to be done with a single colour shade to turn it into something capable of protection.

Copyright and design rights (and trademark rights) may exist in something as simple as a headline or group of words in a single colour. Also paintings comprised of single colours or predominantly single colours attract copyright and are sometimes worth millions. It is interesting to consider however that works of art such as this may not have passed the rigorous trademarking criteria (leaving usage issues aside) despite their obvious value to the art loving public. The consideration of issues such as these, demonstrate the different purpose of the various intellectual property rights and their function. In the case of trademarks it is the link in a consumer's mind with the origin of goods rather than aesthetic appearance which is important.

Multiple shade and colour usage and protection

Moving from the realms of protection for single colours to multiple colours opens up whole new areas for consideration. Several trademark cases have caused confusion in the courts surrounding single versus multiple colour usage with the ironic outcome being that it has been relatively easier to register some single colour trademarks than some multiple colour trademarks. For example, the trademark examiner in a Glaxo case involving a two-way colour scheme for an asthma inhaler needed to be able to precisely delineate the colourways and then demonstrate regular usage in exactly this form for them to be capable of being validly registered and then subsequently upheld [42]. It seems that multi-colour trademarks have introduced further complications compounding on already historically ambiguous registration criteria.

The recent craze for adult colouring books has raised some interesting copyright issues. Often the publisher (or sometimes original artist or both depending on what has been agreed) will own copyright in the underlying black and white design but who owns rights in the coloured end result and what can be done with that end result need careful consideration.

By contrast, an increase in numbers of colours used will in many circumstances increase the probability that the work in question may qualify for copyright or design protection subject to all the relevant legislative criteria. Design piracy is now a huge issue for fashion houses – an illustration of this is perhaps the existence of fashion law degree courses and the proliferation of high profile cases in this area. Cases have been brought based on designers use of others design and also use of 2D artwork. The interface between copyright and design law is however often a murky one.

Comment and summary

Table 1 summarises the different intellectual property rights which may be relevant to colour.

	Protection methods national	Protection methods European – pre-Brexit	Protection methods European – post-Brexit	Protection methods
Trade secrets	Common law re confidential information	Governed by individual national laws and on implementation Trade Secrets Directive	Governed by individual national laws and on implementation Trade Secrets Directive	Laws of relevant countries
Patents	UK National Patent(UKIPO)	EPO via EPC route – Unitary patent	EPO via EPC route- Unitary patent	PCT route
Trademarks	UK Trademark	Community/EU Trademark	Community/EU Trademarks (single registration covering EU countries) will not then cover UK so open to question	See laws of relevant countries and Madrid Protocol
Design rights	UK registered design right(UKRD) UK unregistered design right (UDR) – only 3D Not colour <i>per se</i> – only as part of a wider design application	Unregistered Community design (UCD) Registered Community design (RCD) Not colour <i>per se</i> – only as part of a wider design application	Unregistered Community design (UCD) will no longer cover UK designs. Registered Community Designs (RCD) may no longer cover UK so open to question –will depend on first marketing. Not colour <i>per se</i> – only as part of a wider design application	See laws of relevant countries
Copyright	Only in so far as what is done with the colour fulfils copyright criteria – not colour <i>per se</i>	Only in so far as what is done with the colour fulfils copyright criteria-not colour <i>per se</i>	Only in so far as what is done with the colour fulfils copyright criteria – not colour <i>per se</i>	See laws of relevant countries

Table 1: Colour protection rights in the UK pre- and post-Brexit.

People want to own colour and colour ways, for their own sake in the case of artworks for example, to create brands and also to make money. Colour is a factor employed either alone (one or several colours) or more frequently in tandem with other design characteristics to achieve this aim. In some circumstances colour may be the only aspect of an application in the case of abstract colour trademarks or it may form part of a wider application (for all IPRs). A distinction must always be made when considering colour protection as to whether one is trying to protect the colour “*per se*” or whether colour forms a part (or may even be integral) to the thing for which protection is sought.

As we have seen, colour is by its nature multi-disciplinary and inter-disciplinary yet law enforcers and makers must attempt to simplify it in order to allow for “ownership” in certain circumstances. Legal rights issues surrounding colour can cause difficulty because of this inherent complexity and because colour can be defined on so many levels and in so many ways [25]. The law is by its nature always playing catch-up with scientific advances.

The richness and complexity of colour is alluded to in our lives in many different ways and contexts (by way of example a pilot’s evocative description of a “series of blues” seen at dusk [43]).

We have attempted to name and classify such colours and where associated IPRs have commercial potential we also want to “own” them. As our scientific understanding of colour and its uses increases so will our desire to protect and regulate it. This article has considered protection as illustrated through

the colour, blue, but the principles discussed could of course and are applied to any colour one chooses to consider.

Until the time when the UK formally leaves the EU, holders of colour rights will still be able to benefit from EU rights and unitary EU rights will continue to be valid in the UK. The type of Brexit will thereafter dictate the impact on future rights and legislation. It would be prudent for holders of those rights to seek specific, professional advice ahead of time in relation to strategic changes to rights and portfolios. This may be advisable to maximise rights post any UK exit.

Particularly given the current political milieu [44], it is likely that our attempts to own and use colour in all its myriad forms will be as contested in the future (if not more so) as they have been in the past.

Glossary of initialisms

Colours

IKB: *International Klein Blue*

Geographical

EU: *European Union*

UK: *United Kingdom*

Institutions

CIPA: *UK Chartered Institute of Patent Attorneys*

CJEU: *European Court of Justice*

EPO: *European Patent Office*

EUIPO: *EU Intellectual Property Office*

ITMA: *Institute of Trade Mark Attorneys*

UKIPO: *UK Intellectual Property Office*

Legislation

CDPA 1988: *Copyright, Designs and Patents Act 1988*

EPC: *European Patent Convention (1973) revised 2000*

EUDD: *Directive of the European Parliament and of the Council on the legal protection of designs, EU Design Directive (98/71/EC)*

EUTMR: *Community Trade Mark Regulation (EU No.2015/2424) [this has associated secondary legislation – an Implementing Regulation (EUTMR) and Delegated Regulation (EUTMDR)]*

PCT: *The Patent Co-Operation Treaty*

RCDR: *Regulation on (Registered) Community Designs (EC) No 6/2002*

RDA: *UK Registered Designs Act 1949*

Old TMD: *Directive 2008/95/EC of the European Parliament and of the Council - Trademarks Directive EU 2008/95/EC enacted through the Trade Marks Act 1994*

New TMD: *Directive 2015/2436 of the European Parliament and of the Council - Trademarks Directive EU 2015/2436 (implementation date 14 January 2019)*

TSD: *Trade Secrets Directive 2016/943/EU adopted by European Council on 27 May 2016 (implementation date 9 June 2018)*

TRIPs: *Agreement on Trade-Related Aspects of Intellectual Property Rights*

Rights

EUTM: *new EU Trademark*

IPRs: *Intellectual Property Rights*

RCD: Registered Community Design sometimes referred to as Community Registered Design and given the initialism CRDR

UCD: Unregistered Community Design sometimes referred to as Community Unregistered Design and given the initialism CUDR or UCUR

UDR: UK Unregistered Design Right sometimes referred to as UKUDR

UKRD: UK Registered Design sometimes referred to as UKRDR

UKTM: United Kingdom Trademark

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²See Page 119 Appendix 1 for the extent of “blue” described by English speakers (an original edition of this book was dated 1969).

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⁴Personal communications via email on 21 March 2017 – the author would like to thank Mary Bagnall and Louise Zafer for helpful comment and contribution.

⁵Widely considered a landmark decision on the graphical representation of non-conventional trademarks under the European Trade Marks Directive (interprets Directive 89/104/EEC).

⁶See Colour 2.04 Section 1(2) and Para 11.08.